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Contents

Review Article

Towards Integrating Public Art in Malaysian Urban Landscape

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ABSTRACT

Public art is an art form that exists in public area for public view. It can be in the forms of sculpture, mural, sculpture fountain and even stabile or mobile inside shopping mall. Its existence breaks the mundane environment and engages some kind of social flux towards public spaces. As urban landscape serves as urban retreat place, it is a much boost of a better quality environment when art approach is becoming part of urban landscape components. Seeing that the combination of site, art and people as one organization, it generates the aura of sustainability towards the urban landscape. However, a paradox situation happens in Malaysia as all the components function solely as different units. This paper focuses on an investigation on the potentials and issues of public art in Malaysian urban landscape. Literature review, document analysis and interview were also done to help justify the findings of the investigation. The first part of the paper examined public art as a contributor towards quality urban living environment. Subsequently, issues and problems which shield the Malaysian urban landscape and to be fully integrated by public art will be highlighted as well. It is argued that the process which artworks fusing with the urban landscape leads to an awareness and an understanding of the public issues to the notion of public art. Therefore, this paper will help to generate the society's awareness and understanding of the effort of integrating public art in the Malaysia urban landscape.

Keywords: Public art, urban landscape, quality living environment

INTRODUCTION

The increase of Malaysia's urban populations is shown by the current census carried out by the Department of Statistics. It is observed that the total population of Malaysia has reached 28.31 million compared to 23.71

million in the year 2000 (Department of Statistics, 2009). This situation thus urges this country to have better urban retreat places in order to provide its population with a better quality environment. In addition, the Minister of Tourism Malaysia, YB Dato' Seri Dr. Ng Yen Yen, had announced the 1Malaysia Contemporary Art Tourism 2010 or MCAT 2010 which would be held from July till September annually (Corporate, 2010). This would be the launch pad for the public art to make its debut in generating liveliness, public participations and improvement in the urban environment.

In a research by Osman (2005), urban landscape is claimed to act as a purification of health, social and environment issues. However, without any interesting element, those spaces are rather dead or will not serve their functions as they should be. This was also argued by Tibbalds (1992) who suggested that a space should be visually stimulating, and rich with vibrant elements and multifunction.

In addition, public art, as mentioned by Robinson (1903), exists not solely as a visual aid but it also serves as a public enjoyment. Therefore, it is observed that there is a great potential in integrating public art in the Malaysian urban landscape as it could provide a transparent image of a city's soul and also improve the quality living environment in the country. In carrying out this study, literature review, document analysis and interviews were therefore done to provide a comprehensive background study on public art and its importance in the urban landscape.

DEFINITION OF PUBLIC ART

Art is usually associated with privatization. The audience is commonly from the elite groups and it is normally placed in a gallery. However, public art functions the opposite from this exclusive world. It is an artwork that is specifically commissioned to the public which it welcomes to engage and interact with (Chang, 2008). Moreover, according to Bach (2001), public art is an art expression that is positioned in a freely accessed public space for the public to use
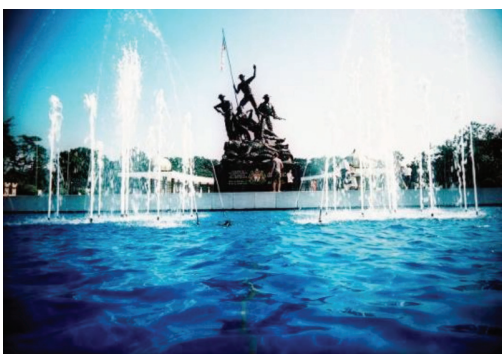
(a)   **(b)**

Fig.1: Good examples of public art in public spaces; (a) The National Monument, and (b) the mural at National Museum

and enjoy. As indicated by Chang (2008), public art refers to any form of artistic expressions from the artist to the people, such as sculpture, mural, street furniture, mobile, stabile in the shopping mall, and cultural events which are located or take place in free accessed sites.

According to Sharp *et al.* (2005) and Hein (1996), however, one cannot label an art expression, just because it is located outside. It requires the act of absorbing the locality spirit and the appearance of the locality in the public art. This is supported by Doezema (1977) who suggested that to fully understand the functions of public art, ones should mull over the chemistry between the content and the audience. Moreover, as asserted by Philips (1992), art only becomes fully public when it takes the idea of public as the origin. In other words, the art becomes public when it resembles its locality and when it blends well with the public and the surrounding, and not because of its accessibility or volume.

PUBLIC ART AS A CONTRIBUTOR TOWARDS QUALITY LIVING ENVIRONMENT

The impact of public art on the community is invaluable. It can be a unique contributor to a quality urban living environment which celebrates its community, highlights past memories and even increases the economical impact of a city (Ramlan, 2009). Thus, public art will continue to be an essential part in the urban development strategies.

Aesthetical Value

In term of aesthetical value, public art carries the basic notion of art which is to beautify spaces. As argued by Hall (2003), art has traditionally been placed in the public realm for reasons of aesthetic enhancement and memories container. In addition, Baker (1998) claims that art is seen as a way to rejuvenate cities by enhancing public spaces. This beautification of cities by public art encompasses vibrant street life by

Fig.2: The importance of public art towards quality living environment

giving an aura of quality on places (Hall & Robertson, 2001). However, Leslie (2005) argued that aesthetical value will neglect the true meaning of art when it is too much pondered upon.

Basically, art expression urges an intimate relationship with the audience. Therefore, aesthetical value and meaning should mull together in order to pull the audience to appreciate it.

Promoting the Sense of Community

Public art can promote a sense of community by promoting community exploration and awareness. According to Swales (1992), the success of public art projects in the public realm requires four fundamental community values, such as shared history, identity, needs and aspirations.

In addition, Hall and Robertson (2001) claimed that public art develops the sense of the community with common identity, values, or culture. Hence, it is an important revitalization in the public sphere when public art highlights the sense of community.

Celebrating the Sense of Place

Public art has been identified to have the ability to transform the quality of a place that has vanished or has been ignored from place by celebrating an event and a local history (Himid, 1994). According to Hall and Robertson (2001), public art typically influences towards the sense of a place, in two ways. First, the public art triggers the awareness of tradition and emerges the unique identity of a place. Secondly, it evokes the sense of place using distinctive physical identities through the creation of artwork.

Addressing Community Needs

Addressing community needs can be associated with the usage of public art. A simple example is the street furniture. It could diversify its use as an art object to a very utilitarian usage (Peto, 1992), contributions to environmental regeneration (Allan *et al.*, 1997), improvement of city ecologies (Guest, 1992), as well as individual and communal empowerment (Baker, 1992; Clifford, 1990; Cross, 1993; Walwin, 1992;

(a)

(b)

Fig.3: *The Cloud* by Anish Kapoor; it enhances the aesthetical value to the overall space

Willet, 1984). At the same time, public art does not only serve as an elitist art, it is also deployed to address as part of healing process within the healthcare (Baron, 1995; Duffin, 1992; Malkin, 1990; Miles, 1994).

Social Implication

Public art can also provide a means of tackling the social exclusion issue. Blaney (1989) posited that the issue can be tackled in two ways. First, personal participation can expand their art commission to a broader social life of urban areas. Secondly, he also argues that the themes, contents and concerns of art expression are able to forge diverse cultures and traditions. Majority of the public are alienated of art; however as art stimulates the mind of the public, it will slowly lead them to the full participatory in the society (Blaney, 1989).

Educational Value

Besides highlighting its beauty, public art also subconsciously promotes educational value to the community. Art education is crucial in making the public understand, in surface or perhaps in depth, the art knowledge. As asserted by the Public Art Consultancy Team (1990), educational benefits should be planted in public art programmes.

ISSUES OF PUBLIC ART IN MALAYSIAN URBAN LANDSCAPE

The identity and image of a city's soul can be reflected and shown by public art (Chang, 2008). In Malaysia, however, the situation of public art differs from the way it should be. The understanding of public art among the society and related professions is still low. Through the literature search, several critical issues of the public art which are

(a)   (b)

Fig.4: Example of the public art which shares common history, identity, needs, and aspirations. Pictures were taken in Putrajaya (a), and Bukit Jalil Stadium, Malaysia (b)

(a)   **(b)**

Fig.5: (a) *The Merlion* and the *Celebration* sculpture in Singapore (b) evokes the sense of place

(a)   **(b)**

Fig.6: Examples of utilitarian public art which provide and address community needs. Pictures were taken in Singapore

happening internationally and locally, as well as the reasons for the lack of public art in Malaysia, have been identified.

Lack of Art Education

The mundane situation of public art may rise from the lack of understanding of public art among the society and related professions in Malaysia. Artists in Malaysia have long blamed this antipathy on the lack of emphasis on art education and public discussion (Shunmugam, 2006). The relevance of Shunmugam's article is clearly supported by the current situation, which still has insufficient public art programmes and also the lack of quality of this art in this country.

Placement of the Public Art

The issue of placement is crucial in Malaysia; public art in this country is mostly done to fill the empty spaces which contradict with the ultimate objectives of public art as public objects. Several public arts in this country are situated at isolate places, whereby it leads to vandalism and less

(a) **(b)**

Fig.7: Members of the public participated in the *Arca 1Malaysia* programme at the National Art Gallery. It promoted a sense of community within the social sphere

(a) **(b)**

Fig.8: Examples of the public art which promote educational values. Pictures were taken at the National Planetarium in Malaysia and Singapore.

public interaction. Moreover, most of the chosen sites do not reflect the place history and other humanistic factors. A recent study by Senie (2003) reported that each place has its own evolving history, visual, social and other uses.

Placement plays an important role in highlighting the existence of public art in public arena. Placement can be categorized into two categories. The first category of placement is in the scope of physical location, while the second category is more to the placement within the public sphere.

Therefore, the public art erection in public spaces should eventually mould chemistry with the public. Taken altogether, these findings suggest that the right placement for public art in the public spaces may welcome an extra ordinary impact.

Lack of Quality

The issue regarding quality has been one of the main obstacles of public art in this country. The recent evidence in the article of Shunmugam (2006) shows that some of the sculptures were suspiciously been

selected by bureaucrats who do not know much about art. This statement is supported by a Malaysian painter and educator, Redza Piyadasa, who was quoted in the article by Shunmugam (2006) as saying that that most Malaysia's sculptures were unable to command people's attentions and evoke deeper feelings. In addition, most city godfathers are proudly presenting tacky, kitsch public art that reflect poorly on sophisticated and cultural mores. There is, therefore, a definite need for improvement in term of selection and appearance of public art. Fig.9 below shows one of the examples of common public arts that dwell in Malaysia.

Lack of Community's Participation

Malaysia faces the problem of the lack of community's participation in public art commission. A previous study has reported that the public has to be involved in the process of developing the public art right from the beginning (Shunmugam, 2006). The local authority nowadays does not put full effort in bringing the community in the process of public art commission, which has compounded the problem of getting the public to have the interest in the public art. However, much is still needed to be looked into when it comes to community's participation, specifically at the beginning part of the public art erection.

Lack of Collaboration

In Malaysia, major public art projects have been shown the neglect of artists' functions. In fact, it has been noted that the local councils in Malaysia seldom consulted the artists or art historians in putting up public art works (Shunmugam, 2006). There is also a court case between a sculptor, Dato Syed Ahmad Jamal and Dewan Bandaraya Kuala Lumpur or DBKL (Ooi, 2010). The local council allegedly modified the artist's sculpture entitled '*Lunar Peaks*' without his consent. As a result, the artist had been compensated with RM750,000 and the opportunity to replicate the work anywhere in Kuala Lumpur. Even worse,

(a)   (b)

Fig.9: Examples of common public art in Malaysia

as stated by Redza Piyadasa in the article by Shunmugam (2006), is that the town council did not have special committee to decide on what is best to be put and what is not in Malaysian urban landscape.

Lack of Pertinent Memories and Identity in the Public Art

Malaysia has a lot of historical and culture values, starting from the tale of the Malay archipelago to the opening of Malacca, the invasion of the Portuguese, the British and the Japanese, the opening of Kuala Lumpur, and many others which are very pertinent for the next generations to remember. During the 1980's and 90's, Malaysia had one of the biggest building booms in the world but nobody ever bothered to fill these new spaces with artworks that are pertinent to Malaysia's culture and history. Nowadays in the Malaysian urban landscape, there are very few public arts that can revive our pride of the nation and national spirit.

THE NEED TO INTEGRATE PUBLIC ART IN MALAYSIAN URBAN LANDSCAPE

The integration of the public art in landscape, especially urban landscape, will enrich the image of places, heighten the nationalism spirit, celebrate the culture and rejuvenate the sense of place. However, integrating the public art in an urban landscape is not an easy task.

Interviews with 10 experts were done to get their opinions regarding the need to integrate public art in Malaysian urban landscape. The result is solidly encouraging,

with over 90% of the respondents agreed that there is a need to integrate this approach and only 10% responded that the issue of public art is not much of importance.

In order to integrate public art in Malaysian urban landscape, several moves need to be taken, as suggested by the respondents. As asserted by AR1, the number of public art in this country should be increased, specifically in the form of street furniture. He further explained that the integration of public art would elevate the understanding towards as it highlights related issues and history in a visual form. Moreover, the exposure to new ideas can be illustrated to the people as this will further encourage more creative and critical thinking of the messages brought about by the public art and it will also amplify the awareness of the people towards the art.

Moreover, as suggested by LA1, the cultural aspects need to be acknowledged by documenting them in the form of public art. Meanwhile, ways of celebrating the rich and diverse culture of Malaysia need to be done because the culture accelerates the sense of place and it also evokes the spirit of nationalism. The impact of cultural devoid in the community is that they will not know the roots of the culture, and thus, obstructs them from experiencing and implanting it as part of their way of life.

At the same time, AC1 and AR3 recommended that Malaysia should setup a special committee that will specifically handle public art. They further explained that this special committee would link with other professional bodies, such as

architects, landscape architects, planners, etc., so that with this linkage, they will have a peer review regarding the work of art. By having the special committee, each gap of constraints can be compensated by the strength of the other. In the case of public art, however, artists should be the key players because they are the persons who valve about creativity, which is more specifically into value and philosophy.

In addition, the leaders of this country play a major role in the development of art. This is supported by AC1 who stated that the leadership should have the vision to weave the art within the development of this country. In this matter, the government has run several programmes that are related to the art scenes, such as art tourism. With the support from the leaders, artists will have wide open opportunities to exuberate art to its highest potential.

AR3 also suggested that educators be responsible in educating the public to have a greater awareness regarding public art as a need to improve the quality of life, and not solely as an aesthetical improvement. This is important to ensure that the people will not have the thought of art as being worthless and that in term of the development of art, it will lead to unimportant and lack of art explorations. AR3 also stated that public art could contribute to the development of economy in the country because it has a mutual character that can attract the people to enjoy its creation.

According to LAR2, the placement of public art is important to attract more attention to it. She further suggested that public art be located in special zones or themes which are demarcated by the government. Places with large open spaces are recommended for the public art as these will welcome more pedestrians to appreciate the work of art. However, public art should not stand alone, but it should be integrated with other landscape elements to uplift its potential and to evoke the public's feeling to interact with it.

Public art should be more interactive rather than merely monumental, as mentioned by LAR3 who stated that it could nurture tangible interactions between the public and the public art. Nonetheless, it still requires some relationships with the identity of the surrounding areas to inculcate the sense of place. This is further supported by LAR2 who claimed that the impact of the public art in term of interaction could be seen when the selected locations and suggested public art comprised the entire humanistic elements, such as the sense of place, attractive form and interactive characteristic. Moreover, a big scale of public art will trigger the attractive sensation and evoke the sense of sublime. As the result, the need to integrate public art in this country is inevitable. Public art could offer more than aesthetical value, as it gives the vibes in large aspects of creating quality living environment.

CONCLUSION

In summary, public art can contribute to the quality of life as it serves numerous advantages towards the community. Its contributions uplift the place environment,

improve the social characteristics, and elevate the standard of education. These studies have found several issues and problems that seem to be the culprits of public art to be integrated into Malaysian urban landscape. Taken altogether, the issues and problems of public art in this country have been covered in every aspect, and this is because the community, professionals and the authority still lack the necessary collaboration and have low understanding of the notion of public art.

Hence, more emphasis given on developing creative, innovative and quality environment will encourage further research on integrating art in urban landscape. This will be the best launch pad for the public art to go much further, especially in Malaysian urban landscape.

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Review Article

From Human Resource Development to National Human Resource Development: Resolving Contemporary HRD Challenges

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ABSTRACT

Faced by past and present challenges, efforts have been made to extend the scope of Human Resource Development (HRD) to cover national level HRD issues with an emerging new paradigm of HRD research agenda, the National Human Resource Development (NHRD) as proposed by McLean and others in 2004. This paper provides a review of the literature related to HRD and NHRD, with the main purpose to critically debate the adequacy of HRD and the plausibility of NHRD in resolving contemporary HRD challenges. Through the review of related literature, a set of contemporary challenges were identified from the environment, as well as at the entry, task, validation and exit levels of HRD processes. The capability of HRD in resolving these challenges was critiqued, and it illuminated a distinction between traditional HRD (THRD) and modern HRD (MHRD). Based on the discussion, an emerging theoretical base of HRD was modelled, and the NHRD was proposed and highlighted to resolve contemporary challenges.

Keywords: Human resources development challenges, national human resources development, emerging HRD research

INTRODUCTION

The flux of the ongoing debate in defining Human Resources Development (HRD), identifying its scope and roles, and its theoretical base has brought different perspectives to the HRD field. From the work of Nadler, who was earlier

believed to have coined the term HRD in 1969 (Swanson, 2001) to recent well known scholarly work until 2001, HRD has been defined in the contexts of individuals, work teams, organizations and work processes. This is evidenced when examining Weinberger's (1998) collection of HRD definitions from 1970 to 1995. Swanson (2008) recognized a set of HRD roles as "training and development, organization development, performance improvement, organizational learning, career development and management and leadership development" (p. 264). This seems to be a summary of the major HRD roles indicated by the definitions compiled by Weinberger (1998). In addition, Swanson (2001) also proposed a theoretical basis of three theories — economic, system, and psychological — that seemed to be accepted by the dominant HRD experts, except for a few criticisms, especially by Mclean (1998). The HRD outcomes to be generated in the organizational context have been identified as 'improving performance and learning' (Swanson, 2001), as underlined by the two main paradigms of HRD, namely, learning and performance. This review mainly covered the HRD literature on 'Human Resource Development (HRD) challenges' and 'National Human Resource Development (NHRD)' to answer the following questions: (1) What are the contemporary challenges confronted by HRD?; (2) Is HRD capable of resolving these challenges?; (3) What are the emerging research inquiries to resolve such challenges?; and (4) Can NHRD resolve the identified challenges?

DYNAMICS IN HRD

The complex and dynamic world scenarios have brought unprecedented challenges for HRD. According to a definition by Oxford Advanced Lerner's Dictionary (2005), challenges are difficult tasks that test somebody's abilities and skills. The forces that affect the new roles expected from and the new needs to be achieved by HRD test the abilities of the HRD field and its profession; hence, they all act as challenges to HRD. On this basis, some forces, roles and needs of HRD have been considered as challenges to HRD, with the directly highlighted HRD challenges in the literature.

Challenging Forces, Roles and Needs of HRD

Some major forces such as globalization, changing organizations and workforce, impact of technology, and HRD's receptiveness and flexibility (Ruona *et al.*, 2003) have impacted the academia and practice of HRD. Hertenstein (1999) showed the challenge of globalisation confronted by HRD as to recognise, address and support the evolving global culture and humanize it to enable people to operate in it.

Ruona *et al*. (2003) suggested new roles of HRD which include learning and human development for people to overcome resistance to changes and building systems to face uncertainties, change and system development for organizational renewal, as well as knowledge management to knowledge creation and managing organizations.

In addition, the emerging new HRD needs also stand as challenges to HRD. Marsick (2007) identified a need of 'T shape' skills for the professionals that combine a deep knowledge of a discipline (vertically) with an understanding of how their discipline interacts with other disciplines (horizontally). Bringing a new perspective to the HRD field, Garavan *et al.* (2004) pointed out a need to apply different levels of analysis in HRD theory development research. On the other hand, Torraco (2002), explaining the alternative theory building research methods, emphasised on the use of innovative methodologies in HRD research and theory building (Torraco, 2004).

Direct Challenges to HRD

The HRD literature provides some challenges that are confronted by the field of HRD and its profession. Ruona *et al.* (2003) identified five major challenges of HRD as Organizational presence and recognition (presence in the "boardroom" and in organizational leadership), evaluation and return on investment (being market driven and demonstrate return on investment), HRD's identity (identifying HRD's core competencies and competitive advantages), identifying HRD's stakeholders (deciding to whom the profession serves - whether only to large organizations or working with the community, schools and educational institutions, nations and society as a whole), and standards and professionalization (differentiating between good and bad practice, practitioners, and theory/research).

Gold *et al.* (2003) also highlighted some HRD challenges that include gaining recognition for the services that HRD provides, taking learning seriously and strategically, having an inclusive approach to HRD using technology as a vehicle to achieve learning, making HRD a strategic consideration at work, and showing links between HRD and measurable outcomes and outputs.

Bing *et al.* (2003) reported some challenging trends in HRD such as "balancing the demand for increased shareholder values against values as perceived by other stakeholders, making better use of technology to deliver just in time solutions, an increasingly global economy, and demand for more ethical and socially responsible organizations" (p. 342). They further identified five challenges to HRD professionals, namely, responding to multiple stakeholders (not only shareholders), measuring HRD's impact and utility (while doing professional and ethically important services), orienting towards the future (not only the current and past orientation), focusing on problems and outcomes (rather only the processes), and achieving a status as a profession (enabling to perceive HRD as a legitimate profession by others). Marsick (2007) highlighted a challenging threat to HRD, that is, the inability of HRD to take on a driving and a strategic role in organisation.

Chermark *et al.* (2003) highlighted some challenges posed by some critical uncertainties, such as competing for competent and expert workers (expertise

elite), facing globalization by balancing the boundaries of time, space, geography and culture and continuous expertise development, striking a "balance between ever demanding organization and individuals" (p. 265) (locus of control between organizations and individuals), contributing to organizational knowledge management to increase marketability of HRD's knowledge, being "flexible enough to respond variety of ages (knowledge, information, and participation ages) and the priorities they will bring" (p. 265), and exploiting the technology to shift in the highly automated and technologically demanding workplace.

As for the critical knowledge claim of HRD, some sets of present HRD challenges need to be addressed. Bierema and Cseh (2003) identified challenges that include creating social justice in the work place, paying attention towards women's experiences, addressing organizational 'undiscussables' (such as sexism, racism, patriarchy, violence), creating organizational democracy, doing feminists' workplace studies, and advocating change.

Initiating a new research agenda, McLean (2004) pointed to the HRD development needs and development priorities in some countries, especially in developing countries and transitioning societies as major challenges for the National HRD policy planning and implementation.

Based on the above discussion, the contemporary HRD challenges can be synthesized using the ETVX (Entry-Task-Validation-Exit) model, which was introduced by IBM for documenting their processes (Radice, 2002). This has been widely used in explaining the process and managing the quality of processes. Human Resource Development, as a process (Swanson, 2001; McLean & McLean, 2001), also has these phases of "Entry, Task, Validation and Exit". Human Resource Development requires tangible and intangible inputs at the entry level to be processed by the tasks that are validated so as to generate the expected outputs at the exit level. This process operates in an environment. The HRD challenges can be identified at these levels. The challenges at the entry level are related to what is required as the input into the HRD process, whether tangible or intangible. Challenges at the task level are related to main activities to be carried out and at the validation level, they are related to what is needed to ensure a proper performing of the main task, while at the exit level they affect what is expected from the HRD process. Finally, challenges from the environment affect the whole process. The model is illustrated in Fig.1.

Is HRD Capable of Resolving the Contemporary Challenges?

Here, the question is whether the dominant domain of HRD is in a position to resolve these contemporary challenges. The debate on defining HRD is still on and there is no consensus over an agreed upon definition (McLean, 2001). As HRD is "emergent, dynamic, and moulded by the contexts, circumstances, and cultures in which it occurs" (Dilworth, 2003), the focus of the

Environmental Challenges		
Globalisation and global economy, changing organisation, demand for more ethical and socially responsible organisations, and impact of technology		

Entry Level Challenges	Task Level Challenges	Exit Level Challenges
	Enabling strategic and serious learning	
	Gaining recognition for HRD service	
	Making HRD a strategic consideration	
	Responding to multiple stakeholders' interests	
	Measuring and evaluating HRD's impact and ROI	Addressing development needs of the countries
Changing workforce	Enhancing marketability of HRD knowledge	Advocating change
HRD's identity	Technological exploitation	Doing feminists' workplace studies
Future orientation	Enabling change and system development	Creating organisational democracy
Strategic focus of HRD	Balancing the locus of control between organisations and individuals	Addressing organisational 'undiscussables'
New theoretical orientation	Responding to variety of "ages"	Paying attention to women's experience
Focus on 'T' shape skills	Competing for expertise elite	Creating a social justice in work place
Focus on problems and outcomes	Balancing the diversity facing to globalisation	
	Validation level Challenges	
	HRD's receptiveness and flexibility	
	Organizational presence and recognition	
	Standards and professionalization	
	Having Inclusive approach to HRD	

Fig.1: Contemporary Challenges of HRD

major domains of HRD has been argued to extend beyond organisations (McLean, 2004). Its roles and outcomes have been criticised for the insufficiency to address the challenges pointed out, especially by the critical HRD perspective and the recent NHRD research. HRD's foundational theoretical basis has been critiqued for its insufficiency (McLean, 1998), and the need of using innovative theory building methodologies in HRD has also been emphasised (Torraco, 2004). Many scholars have shown the paradigmatic limitations of the dominant domains of HRD. For instance, Valentin (2009) claimed that HRD was dominated by the positivist paradigm. Turnbull (2002) worked to challenge the dominance of the positivistic approach in HRD theory building by raising the

credibility of using the qualitative research. McLean *et al.* (2008) labelled the major paradigm of HRD as positivism or post-positivism. For all these limitations, it is clear that the dominant domain of HRD developed from 1970 to late 90s is not enough to resolve the already identified HRD contemporary challenges and thus, the authors wish to label it as 'Traditional HRD' (THRD). The rest of the inquiries that seek their identities and are different from THRD are then termed as 'Modern HRD' (MHRD). McLean *et al.* (2008) supported the constructivist paradigm for their research inquiry. Critical theory is the main paradigm in the critical HRD. Some critical theorists support post-modernism, as well (Velantin, 2009; O'Donnell *et al.*, 2006). Although alternative inquiry may take post-positivistic

approach, it is more supportive to the critical and constructivist paradigm as it is supposed to be more innovative in its efforts. Based on the above evidence, these paradigmatic differences between THRD and MHRD can be presented as in Fig.2. The established relationships among the ontology, epistemology and methodology shown in the figure are based on the work of Ruona and Lunham (2004). The work by Guba and Lincoln (1990) guided for the identification of ontological, epistemological, and methodological characteristics mentioned in the model.

EMERGING HRD RESEARCH INQUIRIES

Under the new developments that are taking place in HRD, some key research inquires are noteworthy. Swanson (2008) categorized these new research inquiries into three groups; First, placing HRD on the three core theory domains of economics, psychology and system theories; second, viewing HRD without core theories but contingently seeking the usefulness of all theories in HRD work (multiple theory approach); and third, viewing HRD as having a narrowly focused theoretical foundation in order to fit with a particular ideology or research programme. However, the authors wish to categorise them into four important HRD research inquiries, namely; traditional HRD inquiry, multi-disciplinary HRD theoretical inquiry, critical HRD inquiry, and alternative HRD inquiry. All these inquiries are needed to address the emerging challenges in contemporary HRD.
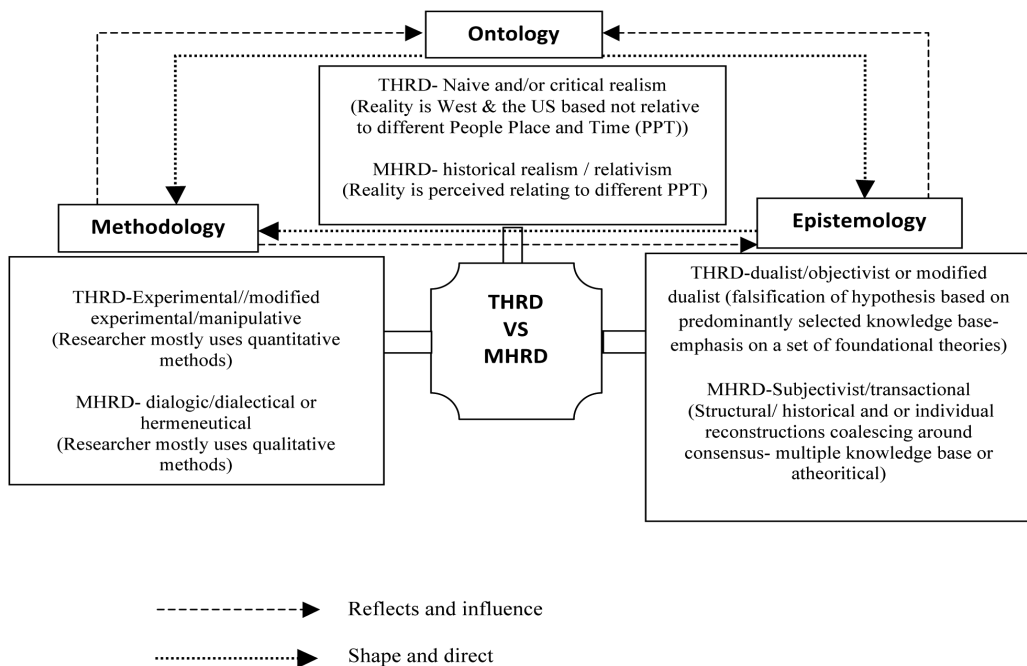
Fig.2: Traditional vs. Modern HRD

Traditional HRD inquiry dominantly explains and builds the core knowledge of HRD based on a selected set of knowledge/theories, limiting its discussion to organisational context. Multi-disciplinary HRD theoretical inquiry still explains and builds the core knowledge of HRD, not based on selected knowledge/theories, but seeking for the use of any knowledge/theories contingently, extending their scope beyond organizations. Critical HRD inquiry pays its attention on the "hidden sides" of day to day HRD, purely aligning their arguments to critical theory. They mainly critique the dominant ontology of HRD whatever it is for the benefit of the minority, woman, or any other suffered categories rising against the power and political imbalances. Alternative HRD inquiry, however, may not explain the core knowledge of HRD. Instead, it performs as a 'linking pin' to link HRD with other fields/ theories/ knowledge by discovering the possibilities of applying or relating such 'foreign knowledge' into HRD that could be later considered in explaining or building the core HRD knowledge. This inquiry can support three other inquiries to build their specific knowledge content by relating or applying the other foreign fields' knowledge/theories or models.

The first research inquiry has been the dominant domain of HRD for decades, and new contributions have been made to it. Scholars have shown the applicability of development economic theories (Wang & Swanson, 2008; Swanson, 2008; Greg *et al*., 2008), social capital theories (Storberg-

Walker, 2009; Swanson, 2008), and modern labour economic theories to the HRD foundational theories. Wang and Swanson (2008b) brought the attention to 'messy' issues in HRD at small-, middle- and large-scale development efforts and suggested a framework for comparative studies in HRD, not only at the micro-level but also at the macro-level (nation, national and region). This initiative shows a slight alignment with McLean's (2004) initiatives in extending HRD boundaries beyond organisational context. Wang and Sung (2009) have tried to clarify the boundaries of HRD again by emphasising on workforce development and workplace learning.

In line with the second HRD research inquiry, MacLean (2004) extended the scope of HRD beyond organizational contexts to include community, nation, region and global level with a consideration of cultural, political and economic variants of such contexts. McLean (1998) first saw Swanson's (2001) three-legged stool as too simplistic and inadequate. Instead, McLean (2007) presented the image of an 'octopus' that may incorporate more advanced theories flexibly into HRD research. According to Mclean (2007), theories may come even from anthropology, sociology and speech communications, as well as the other disciplines, such as music, philosophy and so on. Torraco (2004), accepting the need of going beyond the HRD three-legged stool, elaborated on the role of theories such as organisational behaviour, psychology, sociology, communication, education and other social and behavioural sciences in

explaining HRD. He further highlighted the applied nature of HRD that seeks for large territories of knowledge. According to Weick (1995), a good theory cannot be recognised by examining the product alone, and the context in which the product lives is also more important. Studying the interplay between the object and the context requires innovative research approaches.

In support of the third HRD research inquiry, Bierema (2009) challenged the HRD's dominant theoretical framework and attempted to unsettle our understandings of HRD through a woman's perspective claiming that, "…HRD is increasingly thinking 'inside the box' of capitalism and masculine rationality making it ever difficult for the profession to behave ethically, sustainably, or creatively" (p. 69). She further argued that, "ironically, HRD has become feminized, yet perpetuates masculine rational professionals and HRD recipients" (p. 91). She further critiqued HRD saying that it is 'performative philosophically' (emphasis on efficiency and performance); commodificates employees (labour is exchanged for something else making work relationships into a product to make profits and generate performance), is alleged to shareholders (ignoring all its stakeholders), ignores power relations (failure to recognise the marginalisation of some members of the organisation), and lacks alternative models and theories for HRD practice. Bierema and Cseh (2003) claimed that HRD paid little attention to social justice at work, women's experiences, gender and other diverse groups, organisational 'undiscussables', and the need of advocating

change. Fenwick (2005) showed the need of focussing on fundamental inequalities, oppression and violence in organisations. Turnbull (2002) argued for a liberal and pragmatic approach to HRD theory building which retains academic rigor, celebrates differences and allows learning from more than one ontological paradigm. Valantin (2006), Sumrook (2004, 2009), O'Donald *et al.* (2006) and Carole and Turnbull (2002) also delineated the need for critical HRD.

Under the fourth research inquiry, initiatives have been taken in search of the knowledge from other fields to incorporate them with the rest of the research inquiries. The work on the implication of different philosophies in HRD (Ruona & Lynham, 2004), and the implications of different world views in adult learning (Johansen & McLean, 2006) support this research inquiry. Short (2000) discussed how to use metaphors to view HRD to our advantage and also how it can be dangerous for the field. Russ-eft and Preskill (2005) searched for the involvement of Return on Investments (ROI) in the evaluation of HRD. Meanwhile, Turnbull (2002) argued the use of bricolage as an alternative for HRD theory building, challenging dominance of post-positivist approach on HRD. Similarly, Garavan *et al.* (2004) also discussed HRD as a multi-level phenomenon emphasising the need to address the level of analysis. The recent emphasis on generational differences on HRD studies (Li & Nimon, 2008) and HRD's role in crisis management (Wooten & James, 2008) can also be highlighted under this research inquiry.
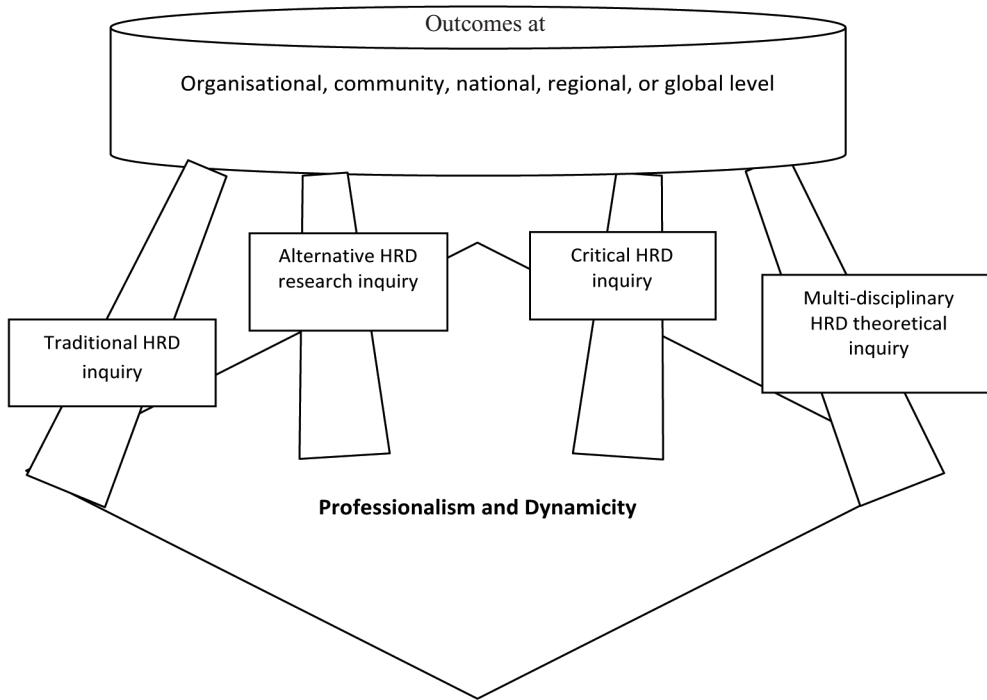
Fig.3: Contemporary HRD Theoretical Base

Summarising the above discussion, a four-legged stool of HRD theoretical direction can be presented (Fig.3). This stool depicts the contemporary research inquiries that have so far been evolved contemporarily. It does not mean that HRD should and will have only these inquiries, and that this stool will not last forever and is opened to continuous improvement as time goes by.

NHRD AS A MODERN RESEARCH AGENDA

National Human Resource Development, under the multi-disciplinary HRD theoretical inquiry, has been taking a paradigm shift. The emerging HRD literature on NHRD has attempted to expand the boundaries of HRD to national socio-cultural contexts, based on broad issues such as national economic performance and national health issues (McLean *et al*., 2004). Most theoretical perspectives in HRD have been limited to the U.S. context (Weinberger, 1998). However, the contemporary world demands more geocentric rather than ethnocentric, more flexible rather than static, more situational rather than absolute, more meso and macro rather than micro and more general rather than specific approaches to HRD research (McLean, 2007). As pointed out earlier, NHRD seeks its base on multiple theories and perhaps, on more advanced theories to cater to the emerging HRD requirements posed by the contemporary challenges (Fig.1), especially the challenges

at output and validation levels and from HRD's environment. Authors view NHRD to come under the category of MHRD. This is because its extended scope enables it to respond to contemporary challenges that may be irresolvable with narrowly defined scope within organizational context; its orientation enables it to encompass ambiguity (McLean, 2007) and multiple theories/knowledge that encourage the construct of the NHRD's core knowledge base contingently that paves the way for more effective responses to context specific issues and challenges. NHRD also has a room for critical HRD and alternative HRD inquiries because NHRD rejects positivism or post-positivism. Besides, NHRD's applied nature in contributing to resolve people related problems that are unseen by traditional HRD and need to be more coordinated, macro-level, holistic, whereas integrated approaches merits it to be viewed under MHRD. In practice, NHRD has contributed a great deal to the development of many countries, such as Singapore, South Africa, St, Lucia, Brazil, Jamaica, Pacific Island, Mexico, China, Thailand, Korea, Kenya, the Philippines, Poland, and the developed countries of Canada and the UK. In 2004 and 2006 in particular, the issues of AHRD came up with five certain models of NHRD, the challenges and attributes of NHRD and other matters related to it (Cho & Mclean, 2004; Lynham & Cunningham, 2006). These issues of AHRD have further shown how NHRD has contributed to these countries' development to achieve improved productivity, eliminating racial imbalance,

local and global competition, training, education, employment, social stability and development, national health, national and international development, and local and global collaboration (Osman-Gani, 2004; Lynham & Cunningham, 2004; Scotland, 2004; Bartlett & Rodgers, 2004; Cooper, 2004; Yang *et al.*, 2004; Lutta-Mukhebi, 2004; Szalkowiski & Jankowicz, 2004; Lee, 2004, and several others). Further, it has been shown how NHRD can contribute to the achievement of the millennium development goals and other dimensions related to human development (Mc Lean, 2006; Lynham & Cunningham, 2006).

WHAT'S THE FUTURE — HRD OR NHRD?

The NHRD has been critically challenged for its theory development approach and its definitional process (Wang & Swanson, 2008a; Wang, 2008). However, McLean *et al*. (2008) have reflected their views on the criticisms. They argued that their methodology has been used in more than twenty countries by more than fifty authors. Moreover, they accept the existence of confusion in the definition of NHRD, just like in the HRD definitions. McLean *et al*. (2008) firmly defended their methodology, pointing to the differences between the HRD and NHRD paradigms. These core differences apply uniquely distinguishable methodologies in their research that cannot be evaluated on a same set of criteria.

Compared to traditional HRD, NHRD as a modern view of HRD is broader in scope. Wang and Sun (2009) attempted

to rationalise that HRD's focus should be limited to workforce development and/or workplace learning. This is clearly an acceptance of the limit of THRD, focusing on the organizational context. This will definitely ease to clarify the NHRD scope in the future, in line with its future research on MHRD. Wang (2008) pointed to NHRD as a sub-field of HRD, but the traditional HRD definitions and its scope is too narrow to encompass NHRD, which goes beyond the boundaries of THRD. If NHRD is to be a sub-field of HRD, traditional HRD should be renamed as organisational HRD or micro-HRD. At the same time, it needs more efforts to find out a proper definition for HRD to encompass both organisational HRD and NHRD. One may see that the global definition of HRD, put forward by McLean and McLean (2001, p. 322), may be suitable to encompass both the definitions of organisational HRD and NHRD. Unfortunately, NHRD definition (McLean, 2004, p. 271) seems to be broader than the McLean and McLean's (2001) global definition of HRD. As the word "adult" has been replaced by ellipsis in the NHRD definition that has broaden the focus of the field even beyond adults, while the rest of the definition is similar both in the NHRD definition and in the global definition of HRD. Therefore, the authors infer that HRD has not yet been properly defined and there is no proper alignment between HRD and NHRD.

This study will encourage scholars to raise more critiques on this work and come up with major concerns of this paper, such as 'contemporary challenges of HRD',

'emerging research inquiries', and 'NHRD's ability to address such challenges'. The discussion on HRD paradigm can be studied to reach its complex roots raising critiques on our model. It is essential to find appropriate links and compatibilities between HRD and evolving NHRD. Significantly, this study will provide a summary of the contemporary HRD research inquiries in its four-legged stool that can be used in the future research and review purposes. However, further efforts are still needed to enrich each research inquiry by subsequent studies, with more specific characteristics and relevant scholarly work since this study took only an initiative to outline each research inquiry.

CONCLUSION

Our study on the contemporary HRD challenges, emerging HRD research inquiries, and the THRD and MHRD has led to some conclusions over the debate on the adequacy of HRD and the plausibility of NHRD in resolving the contemporary HRD challenges. First, the dominant domain of HRD is limited in its scope to adequately respond to the contemporary HRD challenges, and thus it remains under THRD. In contrast, NHRD is capable of responding to these challenges as it represents the attributes of MHRD. In specific, the HR related issues to be addressed beyond the organisational level can best be covered by NHRD. However, the scope, roles, and definition of NHRD need to be properly clarified, and their links to HRD should be established in directing future research.

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A Spatial Analysis of Organizations in an Intelligent City: An Ethnographic Approach

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ABSTRACT

Studying spatial experiences in intelligent cities is a unique research experience. This study offers an analytical view of spatial experiences in selected Information Communication Technology (ICT) based organizations in Malaysia. This study is based on a six-month ethnographic fieldwork in the Malaysian Multimedia Super Corridor (MSC) intelligent city. The research employed a multi-method approach, namely, ethnographic interviewing, structured interviewing, participant-observation and official documentation. Based on the research findings, the researcher proposes a concentric model circle to understand spatial experiences in organizations.

Keywords: Ethnography, ICT, intelligent city, organization, space

INTRODUCTION

The main aim of this paper was to investigate the spatial experiences of *Merdekawira*[1] city dwellers in the first intelligent city in Malaysia. The city was developed by the Malaysian government, and is allegedly functioning as the planners envisaged it would. In order to answer the research objective, the researcher carried out a six-month ethnographic fieldwork. The Malaysian Super Corridor

[1] This is a fictional name of the city.

(MSC) is a planned national project to transform Malaysia into a knowledge-based economy (Mahathir, 1998, 2002). It was an innovative project to put Malaysia back on track after the economic crisis in 1998. The MSC project was a result of a bold dream to transform Malaysia into a modern and powerful nation, i.e. a nation with a new robust economy that is sustained by a knowledge-based society. The project was the brainchild of the visionary fourth Prime Minister, Tun Dr. Mahathir Mohamad.

The concept of an intelligent city emerged from the attempt to create and poise knowledge economy as the key engine for economic growth (Agar, Green

& Harvey, 2002; Intelligent Community Forum, 2007; Komninos, 2002; Mitchell, 2000). Inevitably, knowledge economy is closely associated with Information Communication Technology (ICT), and as suggested by the official website of Intelligent Community, it is a broadband economy (Bell, Jung, & Zacharilla, 2000, 2008; Intelligent Community Forum, 2007). The term broadband refers to ICT facilities and network which accommodate and facilitate the flow of information among the main players such as the corporations, the states and individual consumers.

Most debates on the concept of an intelligent city revolve on two main elements – virtual and physical attributes of the city (Agar *et al.*, 2002; Kavanaugh, 1999; Komninos, 2002; Mitchell, 2000). Indeed, the idea of making *Merdekawira* as a high-tech city is an attempt to create a city with the latest ICT facilities and to provide virtual networks, all of which are concentrated in one physical space. Even though one could argue that virtual technology is sufficient to create an intelligent city, it is difficult to create a virtual city without having the latest ICT facilities and supports. As Castells (1996, 2010) has argued, in the 'network society', the hubs and technopoles that succeed in the global economy provide a 'milieux of innovation', that is, the physical infrastructures for cutting edge R&D as well as command and control centres. Thus, spatial factor is vital in developing an intelligent city. In more specific, it complements the virtual technology and gives it a 'social' anchoring.

Significance of the Space Study

Architects and engineers can plan and construct buildings with their modern designs, but more importantly how do people cope with the space created in these habitus. Previous research has shown that in constructing a space, the human aspect is an important variable and should be given due consideration (Guinness, 2003; Troy, 2003). For illustrations, Corbusier (2004) and Howard (2003) state that in the Brazilian case and several other city spaces, created by prominent modern architects, the designers have failed to accommodate the needs of the people. Meanwhile, in affluent research on high tech spaces, Castells and Hall (1994) also found the same dilemma, whereby people's needs and organizations' plans are in conflict.

Postmodernists have argued that the modernists' idea of internationalization of architecture is an oxymoron (Mohamad Tajuddin, 2008). Furthermore, Mohamad Tajuddin (2008) also argued that the communication theory proposed by Jencks and Kropf (2006) propagates that in building space, culture and tradition need to be taken into account because it is the occupants who will use the spaces, not the builders or the architects of the buildings. In light of these arguments, this paper attempted to propose a space model using an ethnographic approach.

The Study

More specifically, this study was an attempt to understand the usage of space in selected ICT – based corporations. The three

corporations studied were a financial institution, a telecommunications company, and an educational servicing corporation. All these corporations have gained an international reputation and are actively operating in the city.

Using the multi method approach which included participants' observation, ethnographic interviewing and structured interviewing, the researcher made an attempt to understand the microcosmic details of the life world of the office workers at selected corporations.

In this paper, the spaces in the organizations undertaken in this study are in concentric circles as a means of representing their degree of accessibility. First, the lobby which represents the outer most fourth circle, or the first accessible space in organizations, and second, the refectories which represent the third outer circle that circumscribes the socialisation space or area. Third, the inner socialization areas which include gymnasiums, play rooms, kitchen and rest area; these areas are represented by the second circle. Finally, the most restricted areas are the office spaces, as these are found in the innermost circle, or within the core of the concentric model.

The key question in this paper is why the organizations are protective of their spaces. In other words, will this posture of being protective lead to the control of movement and activities of employees and visitors in the organizations? In short, companies are keen to protect their physical and intellectual properties. Nevertheless, the consequences of this type of measure have led to a type of strict control that is similar to the panopticon gaze of Jeremy Bentham and adapted by Michael Foucault in his book, *"From Discipline and Punish: The Birth of the Prison"* (1977). This panopticonian approach is useful to explain how the authority imposes total control in monitoring spaces in organizations. The Panopticon is a symbolic mode of power, which in Bentham's case is an architectural form of power (Foucault, 1977). It is a mechanism of control from above. In relation to space in organizations, the panopticonian gaze and measures are associated with the concept of surveillance of employees and visitors of organizations. Every movement is constantly monitored. The upper level management in the organizations studied claimed that they needed to do that for the sake of the security of their corporations. Indeed for the management, the desire to control is an attempt to make life in the organization appear normal and structured rather than chaotic, i.e., out of control. It is a visible and active control of the movements and the activities surrounding life in organizations. In Lefebvre's (1991) view, this type of space is associated with the ideological representation of space, whereby policy-makers rationalize the need to control on grounds related to the security and safety of organizations. Thus, the price of safety is a constant surveillance and a strict control of movements and activities within the corporations' vicinities. The corporations are like fortresses deploying sophisticated equipment or gadgets with

advanced technology, i.e., closed circuit televisions (CCTV) and security guards policing and monitoring every inch of the organizations' spaces, day and night.

Following from the foregoing discussions, the researcher found that the spaces are protected by the security guards and codes of the organizations. This phenomenon eventually led to restricted accessibility in the organizations. Hence, not everyone is welcomed in the organization's space. Only certain spaces were made partially free for everyone to roam about, such as the lobbies and the refectories. Strangers were thoroughly checked and monitored before they could gain entry to these organizations. Everything is about control. Security is gracefully embraced. As noted by Miss Amy, a secretary at an IT company:

> *You can notice the difference in this company. People especially strangers have to identify themselves before they can enter the company. I seldom see office worker entertain "non-business visitors"* (Amy, personal communication, October 10, 2004).

Before I visited any office buildings in the city, I had to make appointments with the office workers.

In this context, I was a purposive stranger visiting the companies to get the viewpoints and stories of the office workers themselves about life in this city. Entering the office buildings in this city was a matter

of following protocol. I dressed like an office worker with formal working attire. I usually wore long dark trousers with a long sleeve shirt. The first person I usually met at the entrance of the companies was the security guard.

After I had obtained my visitor's pass, I would park my car at the car park for visitors, and then accessed the lobby of the company. I usually visited the companies in the afternoons during the lunch breaks from 12 noon until 2 p.m. to meet my informants. It was during this time that I could get to meet many of the employees who were also found waiting around the lobby. This was the first office space which I could enter to begin my research. Let me now turn to the discussions on the research method section.

METHODOLOGY

Ethnography is a descriptive analysis of a subject matter. The term ethnography connotes the meaning of studying local people in their specific cultural surrounding. Ethno means people and graphein refers to writing – and ethnography is a systematic description of habits, customs and norms of people who are the designated research subjects in a nuanced and detailed manner. It is about a culture studying a culture (Spradley, 1979; Creswell, 2007). It is about learning from people or the informants rather than merely analyzing relevant subject matters which are related to them. The ethnographic method was chosen in this study to comprehend the lived experiences of the city citizens. Moreover, ethnography is a practical way to provide

an in-depth understanding of the life world of the informants. LeCompte and Goetz (2001) argue that the strengths lay on its formulation of problems, nature of goals and application of results. Ethnographic researchers formulate their research aims by understanding the interactions of various elements in the natural state of the fieldwork. Thus, the nature of goals is to search theories that are able to explain the data. This is in line with the application of research findings which focuses on comprehending, refining and validating the constructs for the advancement of knowledge in the field. As Geertz (1973) argues, ethnography is an art of systematic analysis of a phenomenon. In his approach of thick description, ethnography is the science of providing rich cultural description of a specific cultural group or phenomenon.

Many ethnographic accounts are descriptive because ethnographers are trained to engage with the micro perspectives of particular subject matters, and pay close attention to how people perceive these. For example, Bronislaw Malinoswki's (1922) *Argonauts of the Western Pacific*, Margaret Mead's (1928) *Coming of Age in Samoa*, William Foote Whyte's (1955), *Street Corner Society*, Clifford Geertz's (1973), *Balinese Cock Fighting*, Paul Willis's (1977), *Learning to Labour: How working class kids get working class jobs* – are the classical ethnographic works. The contemporary ethnographers who share similar descriptive writing styles are John Postill (2006), Paul Atkinson (2006), Andreas Wittel (2001), Sara Pink (2001),

Micheal Buroway (2000), Philippe Bourgois (1995), Michael Agar (1996) and Kunda Gideon (1992).

The ethnographic study employs various methods. In observing the site, the first encounter with the life world of *Merdekawira* was framed by adopting Spradley's observational approach, i.e. to understand and know how the locals (the Merdekawirans) act in the space known as *Merdekawira* (Spradley, 1980). The data were collected through a structured observation journal. Meanwhile, thirty-one informants were interviewed using the ethnographic and structured interviewing approaches. The interviews were recorded and transcribed according to the themes and theories related to the aim of the research. The transcriptions of the interview sessions came to about 400 pages. The following interview protocol key questions guided the study:

1. What are your role(s) in the organization?

2. How do you see the company's role in space management?

3. To what extent do the staff value facilities (space usage) in the organization?

The respondents in this research consisted of a total of 31 informants from three different companies. Approximately 48% (n=15) were males and 52% (n=16) were females. About 10% (n=3) of the informants were administrative staff, 45% (n=14) were assistant managers and 45% (n=14) were senior officers and managers.

Meanwhile, 80% of the interviews took place at their respective organizations involving every facet of the circles.

Space of Control: A Concentric Model

The organizations' lobbies:
The fourth circle

Building on Kracauer's argument in The Mass Ornament (1995) on the hotel lobby as a social place, which paradoxically lacks sociality, the researcher argues that the lobby environment and the culture in organizations in this city are rather different. If Kraucauer (1995) suggests that the lobby is where people are guests, and they treat the lobby as a place for loitering in a fashionable way, it is then just the opposite of the perception of the use of the lobby in the present study. The lobbies in organizations are heavily monitored by receptionists and security guards. Although they are social spaces that are accessible to a purposive stranger (like me), I was closely watched with suspicion. I felt completely at ease when my informant came down from his or her office and started to greet and talk to me about my research project. To sit in the lobby waiting for my informant made me feel like I was being under the watchful eyes of the police; whose members would immediately pounced on me should I decide to commit a crime in the vicinity.

Furthermore, the lobbies were spotlessly clean. It is another form of the extension of space for control. Sterility is a part of the organizational culture and the representation of this particular aspect of the culture is through the lobbies. There are always some office cleaners who wipe glass tables and vases in the lobbies. While visitors are waiting at the lobbies to meet office workers of the companies, they will either be just looking around, using their mobiles, reading the company's newsletters (which are readily available at the lobbies) and checking their email. Some of the office workers usually hold the appointment with their visitors at the lobbies. The Lobby was turned into a 'makeshift' office to conduct whatever business that was scheduled for during the appointment. As aptly stated by Miss Linda:

I usually saw office workers entertained 'formal visitors'. They seldom met visitors for social purpose here. As in this company, we treat mostly business visitors (Linda, personal communication, September 21, 2005).

Her statement was not uncommon. It is supported by Miss Zola's comment:

It is strange to see office workers to treat or meet with non-business visitors. Here, we usually meet our 'business' clients (Zola, personal communication, September 23, 2005).

Most of the time, the lobbies in the corporations are used by their office workers to meet and host visitors and business associates. The lobbies represent spaces for conducting business, and not merely as social spaces in the organizations. Reflecting on such spaces, Turner (1982) draws attention

to the concept of a luminal space as he further elucidates, "... in liminality, profane social relations may be discontinued, former rights and obligations are suspended (p.27). A more recent illustration of this controlled space is highlighted by Douglass (2006) in his study on commodification of urban spaces in the context of globalization. This work addresses apparent discrimination between 'legal' and 'illegal' users of urban spaces as being defined by the owner of the spaces.

The layout and construct of the lobbies are usually spacious and have a modern outlook. Some companies take great efforts in decorating their lobbies. For instance, big companies like Adson[2] and Malta have spacious lobbies. There are sets of sofas at the lobbies, which are carefully chosen to project the professional and international image of the corporations. In addition, the colour, décor and arrangement of the sofas usually reflect the organizational culture of the company. Most of the companies choose black or dark colours for their sofas, which symbolize the life in the corporations, or a life which is geared towards the priority of work over socialization. Meanwhile, the sets of sofas are arranged in such a way that they are always adjacent to each other and this appears to suggest that the lobbies are the sites or places for conducting business, and thus, private talks are discretely discouraged. The lobbies never cease to remind me that I am sucked into the formal territories of the companies. Some companies display their brochures on

[2] Pseudonym name(s) are used to protect the identity of the research subjects and the companies.

the racks next to the decorated sofa, while some others arrange them on the glass table and some are available at the receptionist's front desk. This deliberately structured environment communicates the idea that the particular corporate image and identity are important to be recognized by the visitors and employees of the organizations. The organizational images and identities are communicated to the visitors and employees through the portrayal of company's logos, spatial constructs, staff smart cards, visitor's tags, as well as guards and their uniforms. These physical artefacts are parts of organizational culture (Balzarova, Castka, Bamber, & Sharp, 2006; Gabriel, 1999; Hickson & Stacks, 1998; Martins & Terblanche, 2003; Schultz, 1995; Wilson, 2001). The organizational culture appears as an attempt to embrace homogeneity and differentiate the office workers from others, i.e., strangers (like me). Even though the culture is quite subtle as the employees do not wear uniforms, the staff tags say it all. We are one and the same, and you are different, not one of us. You are different and therefore, you do not belong here. In an interview with Mr. John on this issue, he responded:

> It has been an understood norm we identified each other by the company. Thus, if anyone is different from us i.e., not wearing any company's identification tag, we normally noticed that they are not from here (John, personal communication, September 27, 2005).

The tangible items are represented as the artefacts of the companies, such as the logo, the spatial structure, the brochures and the staff's identity cards. On the other hand, the intangible items are values, norms and practices which shape and influence the employees' attitudes in workplaces. It is worth pointing out that the organizational culture seems to have a certain effect on the working practices and attitudes of the office workers (Kunda, 1992; Detert, Schroeder, & Mauriel, 2000; Styhre, 2008). It is because they see themselves as one against the others. The others here refer to the other office workers from other companies and also visitors or purposive strangers (like me). Thus, it is argued that organizational culture is another form of control. Although it is subtle, it is effective in influencing the practices and attitudes of office workers in these organizations.

Thus, the lobbies which represent the spatial construct of the organizations seem to be another extension of the invisible, yet intentional mode of control by the corporation's top management. These are controlled spaces even though they are supposed to be social spaces in the organizations. They may appear as open spaces where visitors are welcomed, and yet they are consciously closed to non-members of the organizations. Another social space in the organizations, i.e. the refectories, is discussed in the subsequent section.

The Refectories: The Third Circle

On the other hand, the refectories are more receptive to the strangers of the corporations.

Here, people appear to be quite relaxed and they are drinking, eating, talking and joking with their colleagues. The management determines the designs of the refectories. Some are in open spaces while others are indoors. Some are substantially decorated with modern furniture and also with artificial pond and water fountain, while others present or embrace the image of simplicity in the design and arrangement of their furniture. The prices of food and drink in most of the corporations' refectories are relatively cheaper compared to eating places (restaurants, food courts and cafes) available in the city. As pointed by Mr Yodam:

> *Here, good food comes with affordable prices. The place is much cleaner* (Yodam, personal communication, August 21, 2005).

Miss Chelo further elaborated on this issue:

> *You can observe here, the customers are not only from the company. Other colleagues from neighbouring companies also usually come to have lunch at this place. Sometimes, we can see visitors who are not from this city, perhaps they are visiting their friends here* (Chelo, personal communication, August 22, 2005).

Hence, the refectories are not exclusive to visitors and employees of the companies only. Office workers may also patronise other refectories in other corporations. It is interesting to note that social spaces

usually embrace and engage people from different social backgrounds (Bendiner-Viani, 2005; van Lieshout & Aarts, 2008). In this context, however, as a newcomer, you need to have an escort or a tour guide, someone who can guide you to the place. It is because most of the users of the space are regular customers and it seems odd to have someone new in the place. The regulars will simply notice the newcomer at an instance.

The refectories are another 'permissible' social space in the organizations. As the only outer socialization space in the organizations, they present a more relaxed image compared to the lobbies. Social spaces, such as refectories, are supposed to act as places where social activities are carried out, and as meeting points for visitors and friends (Bendiner-Viani, 2005). Nevertheless, to spend your free time loitering around these places are not recommended. As mentioned earlier on, regular customers are particularly aware of the newcomers to the space and this can make one feels uncomfortable. In this space, it is not the gaze of the upper management that matters, but the gaze of the regular users. Thus, the spaces are partially free as they are controlled by the users most of the time.

The Inner Socialization Space: The second circle

This space is exclusive only for the members of the corporations. In other words, this space is usually a privileged space for employees who work in big companies. As argued by Vasconcelos (2010), inner

socialization space represents the tranquillity of mind. In similar vein, this space also offers freedom for its members to release their work stress (Stryker, 2004).

The management has provided facilities for its employees like the game rooms, kitchens, gymnasiums, prayer rooms for Muslims and a resting area. They are the hidden social spaces in organizations, where office workers spend their social time during their working hours. This socialization space is shared among the members of the organizations and considered as a private territory compared to lobbies and refectories which aree partially more opened to strangers. Miss Jannah was excited to mention about the facilities:

> *In this company, we have good facilities for office workers. Perhaps the best is the gym facilities. It is free for the workers and many of my colleagues are keen of using it* (Jannah, personal communication, December 19, 2004).

Miss Sham also pointed out an interesting point:

> *Do you know in some companies, they have game rooms for office works to take break after long working hours? Some play ping-pong. That's why you can notice why some staff are good in the game when we have inter-company games in the city* (Sham, personal communication, September 27, 2005).

On one hand, providing an inner socialization space seems like an ideal way for the company to strike a balance between work and play. On the other, looking at the provision of the inner socialization space from a different perspective, one cannot help coming to the conclusion that the organizations has now had the ability to contain and control their employees' movement and activities by providing almost everything under one roof. It is like creating an island where every possible need of humans can be fulfilled. Hence, the organizations are attempting to become complete places of living and working in their own respective ways. Drawing on Maslow's hierarchy of needs (Maslow, 1968, *cited in* Hickson & Stacks, 1998), the lobbies, refectories and inner socialization spaces signify the efforts of the top management to fulfil physiological needs, safety and security needs, as well as social needs to motivate and boost the work performances of their employees. Perhaps, to develop employees who are self-actualizers by providing supportive social spaces is a far fetched dream. However, it can be rewarding and beneficial in a sense, as by using these spatial constructs, the top management can at least foment high self-esteem amongst the employees.

As pointed out earlier on, self-contained organizations are able to impose subtle control over their employees by rewarding them with social space privileges. They are retaining and containing the employees in the most indirect way, which is through the 'soft control approach'.

Office Space: The first circle

There are two types of office spaces. First, there are offices where I cannot enter due to data security reasons. These spaces represent the inner rooms of the privileged spaces, where only privileged members have accessibility. The second type is accessible office space. In those offices, I was allowed to enter and observe the working space, the employees and the culture of the organizations.

Alluding to the concept of the office space in an organization, there are several reasons I would like to highlight now to explain how working spaces came to be considered as privileged spaces. First, they are heavily monitored using advanced technology and human surveillance. Second, there is a common 'ritual' adapted by the office workers in the space. Third, outsiders are not allowed to enter the spaces unless it is for an emergency, or with very valid reasons.

With the increased monitoring of the organizations' spaces, the management practice of invoking the concept of privileged space is therefore not something unusual. Technology driven surveillance, with the support of human surveillance, is put in place every where in these organizations. In addition, these surveillance mechanisms are policing and guarding every movement and activity happening within the organizations' territories. One of the senior officers made this clear by saying:

> *As you can observe, the security officers will keep on asking the*

visitors especially when they are not the regular clients. Usually they will ask what is the visitor's agenda? And who do they intend to meet? Some organizations have a very strict rule where every 10 minutes, the officers will come and ask about your presence in the space (Dania, personal communication, September 27, 2005).

The spaces are well-guarded, and these types of surveillance seem to reinforce the idea that those who are members of the organizations have to be privileged as they are free to roam around these spaces compared to the others who are considered as outsiders or strangers and have to be watched closely each time they enter these spaces. As a stranger, you feel like you were a fish in an aquarium. You are being scrutinized by the security officers, the receptionists and the office workers. This phenomenon is linked to the ritual of the office workers in the organizations. Mr. Adham, a Vice President, argued on this particular issue:

Well of course, there is an exception the office is open to special guest. And when there are emergencies, and other specific situations, we need to open the office to the respective visitors (Adham, personal communication, September 15, 2005).

The following fragment of a confession further illustrates this point:

I have to tell you the truth. I can invite you to my room and other office spaces but certain spaces you can't enter due to data security reasons (Dahlia, personal communication, September 16, 2005).

Ritual practices are mostly associated with interpretive or symbolic studies of organizations (Brown, 1998; Elsmore, 2001; Gherardi, 1994; Harris, 1994; Hickson & Stacks, 1998; Ouchi & Wilkins, 1985; Schultz, 1995; Schultz & Hatch, 1996). The practices symbolise how people behave, react and survive the organizational climate by adapting to the 'core' or the established practices in the organizations. The established practices are usually introduced by the seniors or members of the top management through myths, stories and rumours to produce an imaginary code of conduct on how appropriate or acceptable practices should be carried out in the first place (Brown, 1998; Elsmore, 2001; Ouchi & Wilkins, 1985; Schultz, 1995). In addition, group pressure also contributes to the attachment to and adaptation of organizational culture among the employees (Hickson & Stacks, 1998; Elsmore, 2001). In the context of the current research work, the ritual practice of the privileged space refers to the degree of accessibility of strangers to the space and the significance of the staff identity cards. It is common

knowledge in the organizations that only members of staff are permitted to access the so-called privileged space. How do they get access to the place? It is through their staff cards. These cards are granted to those working in the corporations. The card symbolises the power of accessibility and the privileges accruing from it. By being accepted as members of the organization, they are to be trusted and can access almost all the facilities and spaces in the organizations. In short, the cards enable the employees to extend their territories from the lobbies (fourth circle), to refectories (third circle), to the inner socialization space (second circle), and to the most highly exclusive space, which is the working space (first circle). Hence, the cards marked the unwritten rules of the organizations. The cards gave the identity to the office workers and distinguish them from the non-members. As for the office workers, they always wear their staff cards with pride. During my fieldwork, I noticed that these office workers were without fail wearing their staff cards even though it was during their lunch time break in the public places in the city.

Thus, without the employee security cards, strangers visiting the organizations appear to be repressed as they do not have the accessibility to the privileged places. These places, which are heavily guarded with high-technology mechanisms and security officers, represent another controlled space in the organizations. In comparison, other spaces in the organization are restricted to members only. It is only in

times of emergencies, such as fires, health problems or machine breakdowns, the non-members will be allowed to enter these out-of-bound spaces. Another exception would be when there were visits from prominent personalities and auditors.

The accessible office spaces where I could conduct my observations shared similarly unique characteristics. Majority of the workers occupied open spaces and the managers were allocated with individual rooms. It is interesting to note that the manifestation of self-identification could be observed in cubicle rooms. There are personalized calendars, memos about appointments, and lists of 'things to do', as well as photographs of their vacations and work achievements on the cubicle boards. On the desks, there are decorated personal computers, trays with stacks of documents, used mug and stationary. Office workers use their cubicles for socialising and working purposes. As John argues:

> Since cubicles are quite the same, some office workers love to colour their cubicles with their own personal belonging. It is a way to make others know the cubicles belong to whom (John, personal communication, September 27, 2005).

His statement is supported by Miss J who stated:

> In a hot desking environment, usually office workers could not put their personal belonging at the

cubicles as others will be using the same space. In a way, it is lucky for those who don't have to be in the hot desking space. You cannot personalise your office space (J, personal communication, September 17, 2005).

On the contrary, the rooms for managers and the directors are spacious. In one of the executive director's rooms, the office is smartly furnished with a black sofa set, colourful vase, carpet, photos of family and racks of files. In most offices, slogans or statements relating to the company's vision are carefully displayed on the walls. The settings of the meeting rooms are formal sterile and visible to the office workers. Most of the rooms have glass walls which portray visibility to the non-participants of the meetings is not an issue. This reflects the idea of the panopticon gaze, whereby the privileged can observe the others without being seen. Meanwhile, the arrangement of the cubicles in open spaces reveals the organizational culture which attempts to be more open and competitive. Studies in psychology, architecture and organization argue that spatial arrangement can affect the job motivation of the employees (Nathan & Doyle, 2002; Rashid & Zimring, 2003, Sundstrom, Burt & Kamp, 1980). Hence, the spatial arrangement of the working space can either motivate or hinder the employees work performances (Nathan & Doyle, 2002; Rashid & Zimring, 2003; Sundstrom, *et al.*, 1980).

The central premise of the spatial arrangement of the office spaces is the emotion associated with the space allocation. The managers appear to be happier as they are entitled for individual rooms. On the other hand, the office workers who are occupying the cubicles seem to use the discussion rooms for their daily office work, for it is here that they spread out their working documents, discuss and exchange views with their colleagues and write points from discussions on the white boards found in the room. Perhaps, occupying the discussion rooms made them more enthusiastic with their work as they have then found a larger working space and a group of colleagues who can share and discuss ideas on ongoing projects. Mr. Yodam argued on this matter:

Even for office workers who have their own cubicles, they would prefer to work at the discussion rooms. I always observe their style of working and for them more space means more interaction with the colleagues especially when they have to complete group projects (Yodam, personal communication, 22 August, 2005).

Thus, a bigger space tend to inspire them to be more progressive at work, rather than the feelings they have when in their small cubicles, where they will naturally feel contained and restricted in the small space made available to them.

CONCLUSIONS

Drawing from Castells and Hall (1994) and Mohamad Tajuddin's (2008) arguments that understanding a spatial context requires knowledge of the local culture, this study embarked on the objective to investigate the spatial experiences of the city. The findings revealed that due to the protective culture of the organizations, spaces in those organizations could be interpreted in concentric circles. First, the lobbies represent the outer most fourth circle, i.e., the first accessible space in the organizations. Second, the refectories represent the third outer circle which circumscribes the socialisation space or area. Third, the inner socialization areas, which include the gymnasiums, play rooms, kitchen and rest area, are represented by the second circle. Finally, the most restricted areas are the office spaces, and these areas are found in the innermost circle, or within the core of the concentric model. Studies from different scholars have been used to discuss these circles (Bendiner-Viani, 2005; Douglass, 2006; Kracauer, 1995; Styhre, 2008; Rashid & Zimring, 2003; Vasconcelos, 2010). Drawing from the arguments and discussions, the study attempted to reflect the distinctive circle model which had resulted from the controlled culture of the respective organizations.

This study also found that the top management have been using spaces in their organizations to create an organizational culture that evokes the feeling of pride for and belongingness to the companies. Furthermore, as a non-member, the author's accessibility in the organizations was rather restricted. Indeed, the organizational space represents a controlled space, or an exclusive space in which invasion by strangers is not possible. A description of the organizational spaces in a planned city and an explanation of why they are heavily protected from the gaze of the outsiders have been presented in this section.

These findings reflect a new perspective into the organizational space in the Malaysian context, i.e. from the organizational communication framework as there have been limited studies on this area. Moreover, the study attempted to offer an Eastern perspective on the spatial experiences in an intelligent city in Malaysia. This research, however, focused only on one specific location, i.e. *Merdekawira* city. Thus, more research needs to be conducted in other similar intelligent cities which share similar cultural experiences with Malaysia. Finally, researchers may benefit from extended fieldwork in the site(s), provided that they have financial and administrative supports from the research funds.

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A Model of Malaysian Food Image Components: Towards Building a Sustainable Tourism Product

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ABSTRACT

Food is becoming an important or a critical motivating factor for travellers when choosing a destination. Past scholars found that images could trigger imagination besides being a worthy basis for marketing strategy. Therefore, it is absolutely imperative to identify the food characteristics that form images prior to promoting and selling of the local food so as to draw more tourists to the country. Given the fact that a limited literature has been found on exploring food images in Malaysia, an attempt to conduct an exploratory research was therefore made. This study aimed at determining the definitions of Malaysian food, as well as the characteristics and types of food that best depict Malaysian gastronomy culture. Four focus groups were conducted, and these consisted of general public and practitioners from the food industry in Malaysia. The data were then verbatim transcribed and analysed using a coding system. The information obtained from this study is anticipated to assist marketers in developing a comprehensive strategic marketing plan that focuses on targeting food tourists. The paper ends with feasible enforcements suggested to assist catalysing growth in the food tourism industry in Malaysia.

Keywords: Malaysian food, food image, tourism product, food tourism, Malaysia, qualitative study

INTRODUCTION

The tourism industry in Malaysia is one of the largest economic generators for the country; however, with a stiff competition, there are many challenges faced by the government in promoting the country locally and abroad (Segumpan *et al*., 2008). Issues such as 9/11 bombing in 2001, Bali bombing in 2002, the outbreak of Severe Acute Respiratory Syndrome (SARS) and Iraq war in 2003, and Tsunami in 2004

caused negative impacts on the global tourism which has significantly slowed down. Nevertheless, Malaysia Tourism Promotional Board (MTPB) is continuously striving to assure travellers that Malaysia is a tourist haven.

Based on the statistics provided by the Ministry of Tourism Malaysia (MOTOUR), the tourism industry in Malaysia has shown a positive growth. In 2007, for instance, there were a total of 20,972,822 tourist arrivals. Meanwhile in 2008, the number of tourist arrivals increased to 22,052,488 and the percentage change in the arrival figure was a positive increase of 5.1%. In a report by World Tourism Organization (WTO, 2008, *as cited in* Segumpan *et al.*, 2008, p. 130), Malaysia was cited to have increased approximately 20% in terms of the international tourism growth rate. Therefore, the industry is believed to be a progressive contributor to the nation's economic affluence, such as the revenue for the country, employment and income for the local people (Aziz & Zainol, 2009).

The government of Malaysia has been tremendously supportive in marketing Malaysia globally. In addition, substantial financial resources were allocated to develop potential tourist destinations to further enhance the tourism industry in Malaysia (Segumpan *et al.*, 2008). Similarly, countless strategies were launched by MOTOUR to induce the influx of tourist to the country. For example, the launching of Visit Malaysia Year 2007 with different enthralling themes, such as Beautiful Malaysia, Only Malaysia, Fascinating Malaysia, Colours of Malaysia and a tagline of 'Malaysia Truly Asia', had significantly increased the number of tourists to the country (Hamzah, 2004; MTPB, 2009).

Food was found to be an imperative sub-element that is able to add values to a holiday amid destination is commonly seen as the foci in trips (Quan & Wang, 2004). Consequently, food has been perceived as a crucial source of providing experiences to tourists and viable images for marketing purpose (Quan & Wang, 2004). It was argued by Kivela and Crotts (2006) that not all destinations could be benefitted by nature's beauty, such as forest, sun, sea and sand; therefore, food or gastronomy should be viewed as a feasible alternative for promotional measures. Moreover, Tellström *et al*. (2006) claimed that local and regional food images are influential on consumers' mind as food could trigger human's senses (namely, sight, sound, taste, smell and touch). From the cultural perspective, food represents the roots and identity of a community. Tourists are able to experience the beliefs, norms, culture and traditions through consumption of a community's cuisine (Okumus *et al*., 2007).

It has been generally accepted that image plays an imperative role in influencing an individual's perceived image, choice of destination, satisfaction and behavioural intentions (Chon, 1991; Bigne *et al*., 2001; Echtner & Ritchie, 1993; Gallarza *et al*., 2002; Lee *et al*., 2005). Image consigns a visual illustration from the psychological perspective, whereas from the marketing perspective, an image is composed of

attributes that underlie it and the image is believed to be interrelated with consumer behaviour (Jenkins, 1999). Therefore, to facilitate a memorable food experience for tourists, a well-bound set of characteristics reflecting precise Malaysian food image should be projected to attract tourists as a preceding action to determine their motivation to visit and be satisfied with Malaysian gastronomic products.

Malaysian cuisine can be described as a kaleidoscope of appetizing tastes, interesting colours that exist in different forms and textures which stimulate and delight the palate. In addition to being attractive and enticing, Malaysian food is more than satisfying hunger and also contains nutritional and medicinal values according to traditional beliefs (Manderson, 1981). Generally, Malaysians are not restricted to cultural food, except for several food types that are constrained by religious taboos, such as pork for the Muslims, beef for the Hindus and any kind of meat for vegetarians (Manderson, 1981).

In Malaysian traditional food beliefs, food is categorised under hot and cold properties, in which these categories are believed to have effect on human's body (Manderson, 1981). Ingredients used in Malaysian cooking, especially herbs and spices, are food categorised as having 'hot' properties. Food with 'hot' properties is best to consume especially during rainy and cold weather to counter flu, flatulence and colds; for example, ginger, lemongrass, chillies, pepper, galangal and turmeric. In contrast, food with 'cold' properties, such

as vegetables and fruit, are generally used to reduce body heat during hot and sunny weather (Manderson, 1981).

Along with the traditional food beliefs that formed today's culinary practices in Malaysia, food-related cultures and events also play an important role in shaping Malaysian gastronomic experience (Jalis *et al.*, 2009). Festivals or religious celebrations are the connotations of food-related cultures and events in Malaysia; for instance, Hari Raya Aidilfitri, Chinese New Year, Deepavali, Hari Gawai and Moon-cake festival are significant events in Malaysia in which arrays of delicious food are served for feast in conjunction with the celebrations. Being blessed with delectable cuisine and a potpourri of cultures, Malaysia will surely serve as a food paradise to cater for food lovers with a tinge of fusion taste.

According to Wells (1982), the term 'tourists attractions' is very personal and it differs to travellers from different geographic regions; for example, the north-west Europeans may perceive tropical sunshine and beaches as an attraction to them but not to the travellers from other regions. Gearing *et al.* (1974) clustered 17 criteria of tourist attractions into five categories. The categories were 'natural factors', 'social factors', 'historical factors', 'recreational and shopping facilities' and 'infrastructure and food and shelter'. In a study by Hofmann (1979), tourist attractions in Peninsular Malaysia were found to include 'recreation', 'food', 'excursions', 'multi-ethnic society' and 'shopping'. However, Malaysia is being promoted more

vigorously on its sun, beaches, historical towns, nature-reserved recreational areas and even skyscrapers (Samsudin *et al.*, 1997; Liu, 2005; Aziz & Zainol, 2009). On the other hand, the Minister of Tourism Malaysia, Datuk Seri Dr Ng Yen Yen, cautioned that Malaysian food is facing a crisis of image and identity and this has led to confusion and ambiguity among tourists (Anonymous in Nan Yang Press, 2009). Therefore, food is an increasingly crucial factor to Malaysia's economy and also an urgent factor to be researched through intellectual pathways to address the literature deficit on Malaysian food image.

Past scholars claimed that food was viewed as merely a part of an entire destination's image and thus, research on food image has been ignored and/or not given much attention (Scarpato, 2002; Quan & Wang, 2004). Additionally, Hjalager and Corigliano (2000) argued that research on the relationship between food image and a tourist destination was incomplete and nebulous. Correspondingly, Selwood (2003) said that "food is very much overlooked and unsung component of the tourism literature" (Selwood, 2003, p. 178), although cuisine is increasingly having the potential to enhance a destination's image, satisfaction and repeat visitation (Kivela & Crotts, 2006; Henderson, 2009). Besides, food was also claimed to be an influential tool for differentiating and imparting impacts on tourists' emotion (Quan & Wang, 2004; Henderson, 2009).

Hunt (1975), among the pioneers in destination image research, concluded that image is a significant factor in a destination's success as the perceived image held by potential visitors about a destination may have impact upon the feasibility of that particular place as an attraction to tourists. Since then, there was a wide agreement among the tourism researchers and a conclusion indicating that image was critical to a destination's success was further strengthened. Meanwhile, Echtner and Ritchie (1993) further examined the concept of destination image and suggested a conceptual framework that consisted of three continuums; namely, attribute-holistic, functional-psychological, and common-unique axes. On the contrary, Gartner (1993, 1996) contributed to the destination image literature by illustrating that the images of a destination are developed by three interrelated components, which are cognitive, affective and conative. Alternatively, Gallarza *et al*. (2002) proposed a model based on four features, namely, complex, multiple, relativistic, and dynamic. Meanwhile, the existing literature has conceptualized the dimensions of destination image extensively, and a gap was identified – a lack of understanding on the food image dimensions, particularly from the Malaysian food perspective. There are a few key issues related to food in the tourism industry which remain unanswered or perplexing. The issues are such as the defining the terms of Malaysian food and Malaysian food culture.

To facilitate Malaysia as a successful food destination, image should be capitalized to depict its strengths and potential in food

tourism (Ecthner & Ritchie, 1993). To date, however, limited studies have been conducted using a qualitative approach to explore and define Malaysian food and to eventually build a theoretical model in relation to describing Malaysian food image. The main purpose of the current study was to gain a deeper insight into the characteristics of Malaysian food and Malaysian food culture among fellow Malaysians who are well-versed about Malaysian food, rather than to generalize outcomes from the tourists' perceptions of Malaysian food. This study is exploratory in nature and it was guided by three research questions which formed the groundwork for building a model that describes Malaysian food image. The research questions are as follows:

RQ1: What is the definition of Malaysian food?

RQ2: What are the characteristics that best depict Malaysian food culture?

RQ3: What are the types of food that best represent Malaysia's multi-cultures and ethnics?

Conceptual Framework

Despite being a qualitative study, it was suggested that a general construct should be presented either graphically or in narrative form to explain the main components that are to be examined in the research (Fawcett & Downs, 1992; Miles & Huberman, 1994; Voss *et al.*, 2002). Therefore, a conceptual framework was proposed to avoid the researcher from deviating away from the research objectives. Fig.1 shows

the proposed components contributing to the structure of Malaysia's image as a prospective destination for food tourism. Arrows with solid lines proposed the interrelationship between the components. The components (definition, gastronomy characteristics and food types) were anticipated to have a circuitous relationship which reflects the image of Malaysian food. Meanwhile, the dotted arrow represents the proposed enforcement suggested to facilitate related authorities in the hospitality and tourism industry and to capitalize the country's wealth in gastronomic resources as a tourist attraction.

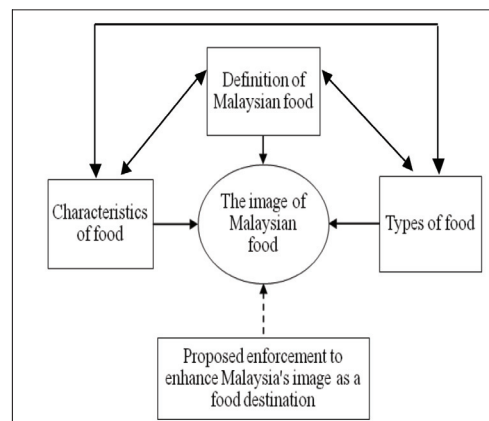Fig.1: Conceptual Framework of Malaysia's image as a Food Tourism Destination

METHODOLOGY

This study was conducted using a qualitative approach as it aimed to examine and identify the image of Malaysian food as a destination catalyst for food tourism demand. In specific, a focus group approach was used to understand the meanings and feelings that the informants attached to Malaysian food in depth (Krueger, 1994), rather than

to generalize findings to the population that might be achieved through survey questions (Kim *et al*., 2009). Focus group is a small group of people brought together and guided by a moderator through an unstructured, spontaneous discussion about a topic (Krueger, 1994; Churchill, 2001; Burns & Bush, 2003). The aim of a focus group is to gather ideas, insights, feelings, perceptions and experiences about a particular issue (Krueger, 1994; Churchill, 2001).

Initially, five informants were recruited for individual in-depth semi-structured pilot interviews in January 2008 which was aimed to identify the clarity of the interview questions. Based on the pilot interviews and also past research on related issue, the questions were improved for better understanding and rigorousness. The finalized interview guide comprised of 10 semi-structured questions which were organized into four sections. The first section was aimed at understanding the meanings and definitions that the informants' attached to Malaysian food. The second section was designed to comprehend the informants' description of Malaysian food culture's characteristics. The third section focused on categorizing Malaysian food that best represents the country's multi-cultures and ethnics. The final section comprised of questions probing into potential actions to promote and market Malaysia as a budding destination to attract food tourists.

During the actual study, four focus groups were conducted from March to August 2008. Individuals participating in the focus group sessions were drawn from various backgrounds, such as students (graduate levels), executive chefs, managers, fitness trainer, business owners, lecturers, food blogger as well as chef trainer. The informants were divided into two categories – 'food practitioner' and 'public'. Out of the total (31), 15 informants were classified under 'food practitioners' who formed two separate focus groups; whereas 16 others were in the 'public' category, also formed two separate focus groups. People who were trained in the area of food were placed under the category of 'food practitioner'. Informants who were not trained in the area of food were placed under the category of 'public'. The informants were identified through a criteria-based snowball sampling technique (Jankowicz, 2000; Tellström *et al*., 2006; Kim *et al*., 2009). This particular sampling technique is dependent upon the initial informants' referrals to generate additional informants (Breakwell *et al*., 2000). For example, the initial informants were requested to refer associates to join the following focus group discussion.

Throughout the main fieldwork, the moderator was accountable to probe the informants without manipulating their views to uncover the topic more in depth (Krueger, 1994). Each focus group lasted roughly 120 to 150 minutes in a conversational mode. Discussions were recorded on three digital recorders and verbatim transcribed. In view of the fact that the focus group interviews generate large quantities of raw data, it was recommended by past scholars that an analysis should begin with data reduction to form a manageable size of data

in order to allow an easier identification of the underlying themes related to the study's objectives (Bogdan & Biklen, 1992; Krueger, 1994; Merriam, 1998). If words or phrases could not be deciphered on repeated listening, this would be indicated in the transcript and considered as lost data. No attempt was made to guess what had been said. The transcriptions were analyzed using the coding system.

As indicated earlier, the transcriptions were analyzed using the coding system. Inductive categorization method was applied which involved a classification of recurring themes found in a text passage (Bogdan & Biklen, 1992; Spiggle, 1994; Merriam, 1998). Subsequently, two independent coders processed the findings separately (Miles & Huberman, 1994). The objective of the coding analyses is to identify emerging themes from the open-ended responses from the focus groups; therefore, the analyses process was data driven (Spiggle, 1994).

FINDINGS AND DISCUSSIONS

Demographic Profile of the Informants

A total of 31 informants participated in the focus groups discussion. The participants were recruited through snowballing and judgemental methods, in which they were encouraged to recommend acquaintances with similar background, especially for the 'food practitioner' category (Jankowicz, 2000; Tellström et al., 2006). Out of the 31 informants, there were 20 males and 11 females. The informants comprised of the three major races in Malaysia and one aborigine informant: 19 Malays, 7 Chinese,

4 Indians and one Bidayuh from the Dayak clan of Sarawak. The age of the informants ranged from 24 to 53 years. Table 1 presents the demographic profile of all the informants who had participated in the focus group interview.

Definition of Malaysian Food

The focus group interviews started with the informants from the public category and the initial definitions about Malaysian food were mostly on the sensory aspect of the food. Herbs, hot and spicy, as well as the various tastes that give an assortment of senses experience were found to be repeated munificently by the informants of the public group. The findings revealed that the informants from the public group focused more on the concrete factors about Malaysian food rather than other abstract factors (such as history, culture etc.) that had also contributed in forming Malaysian food. Therefore, the themes categorised under the public informants group are 'diverse sensory experience', 'hot and spicy' and 'meeting of cultures' (see Table 2).

Conversely, the food practitioners delineated Malaysian food in a broader perspective which includes the history and other influences that have formed the identity of the food nowadays. The themes classified under this particular group are 'cultural food', 'binding grounds' and 'meeting of cultures'. Majority of the informants started their descriptions with a brief history of the culture evolvement from the colonial times to the current, the major races and culture that formed the country,

TABLE 1
Informants' Demographic Profile.

No	Gender	Race	Age	Occupation	Category
1	M	Chinese	26	Application Engineer	A
2	F	Chinese	26	Marketing Executive	A
3	M	Malay	44	Postgraduate	A
4	F	Malay	28	Project Manager	A
5	M	Indian	31	Fitness Trainer	A
6	F	Bidayuh	33	Postgraduate	A
7	F	Chinese	25	Underwriting Officer	A
8	F	Malay	24	Postgraduate	A
9	M	Indian	33	Engineer	A
10	F	Chinese	24	Accounts Manager	A
11	F	Chinese	26	Human Resources Executive	A
12	M	Malay	36	Procurement Manager	A
13	F	Chinese	24	Postgraduate	A
14	F	Malay	36	Senior Management Executive	A
15	M	Malay	27	University Tutor	A
16	F	Chinese	31	Lecturer/Researcher	A
17	M	Indian	50	Chef Trainer	B
18	F	Malay	49	Executive Chef	B
19	M	Malay	53	Professional Chef	B
20	M	Malay	48	Executive Chef	B
21	M	Malay	39	Cost Controller	B
22	M	Malay	27	University Tutor	B
23	M	Malay	45	Executive Chef	B
24	M	Malay	46	Executive Chef	B
25	M	Malay	39	Offshore Catering Owner	B
26	M	Malay	39	Executive Chef	B
27	M	Malay	43	Executive Chef	B
28	M	Indian	44	Director of Culinary School	B
29	M	Malay	36	Executive Sous Chef	B
30	M	Malay	38	Food Blogger	B
31	M	Malay	44	In-Flight Operation Culinary Manager	B

Note:
A – Public Group
B – Food Practitioner Group

as well as some definitions of food through their own ideas of the subjective meaning portrayed by Malaysian food. For example, one of the food professionals defined Malaysian foods as a 'binding ground' to the people in the country; he had a statement as follows:

"The food is actually very enjoyable, I mean food actually bonds people in our country because if you see a lot of time we want to go for a 'teh tarik' (local tea/pulled tea) or when we want to eat food, it brings the close fellowship among us, it

TABLE 2
Definition of Malaysian Food.

Public Group		Food Practitioner Group	
Theme	Responses	Theme	Responses
Diverse Sensory Experience	•You have your tongue all the resources, one side each (taste). •Malaysian food is more towards salty (savoury), the heavy kind of taste. •We are definitely not bland.	Cultural Food	•The best definition that we can have is the cultural food and how we used to eat. •When you talk about Malaysian, it is always a heritage, it is always a cultural like why do Chinese celebrate full moon with a certain kind of food.
Hot and Spicy	•Yes, I think Malaysian food is more on spicy. •To Malaysians, food is the hotter the better.	Binding Grounds	•I would describe Malaysian food as the togetherness of all races; of all the ethnicities and this is the strong hold of our Malaysian food. •Food is a glue for all the races interactions in Malaysia.
Meeting of Cultures	•I agreed that every ethnic has their own dishes but there are some dishes in Malaysia which are actually derived from several races. •I think it (Malaysian food) is fusion between the Malay and Nyonya.	Meeting of Cultures	•Malaysian food is a mixture of whatever (culture) that we have. •I think our food has been fused for a long time, maybe back 500 years ago.

is a bonding factor. If it is here in our country, we actually eat a lot of time; we eat in the night, we eat in the morning, when we see friends we will sitting together and eating, so I would say I would describe that in our country in Malaysia, food bonds people. It brings friendship together, it brings family together."

Though the definitions between the two groups of informants differed, an overlapping theme was discovered. The informants in both groups expressed that Malaysian food is a food formed by "meeting of cultures". For example, one informant from the public group denoted this by giving a simpler example of a daily dish, as follows:

"I agreed that every ethnic has their own dishes but there are some dishes in Malaysia actually are derived from several of races. For example, fish head curry; we

can use Malay spices and cook it in the Chinese way. So actually we get influence by all the ethnic in cooking some of the Malaysian dishes"

Similarly, another informant from the food practitioner group also reflected likewise by explaining a little bit further into the evolvement of the culinary cultures along time:

"There was the time where food was very respective that means you have Malay cuisines, Chinese cuisines and Indian cuisines but then somewhere along the line, there were acceptance you know,

there were crossing of cooking styles, crossing of ingredients and then what happened was the acceptance and of course including consideration of the religious sensitivity as well"

The Characteristics of Malaysian Food

It was found that both groups (public and food practitioners) had analogous views on the attributes that could be used to characterise Malaysian food. Eight themes were uncovered to be descriptive of the characteristics of Malaysian food. These themes covered the sensory qualities of the food and the food experiences in Malaysia. The informants also argued that the experience of tasting Malaysian food

TABLE 3
Malaysian Gastronomy Characteristics.

Theme	Responses
Tinged human senses	"Malaysian food is flavourful, for we are not shy about our taste. Malays, Chinese or Indians, if you tell them 'makan' (eat), the word is already full of flavours."
Easy Access	"It is a 'suicide helpline' where you can get food anytime of the day to warm your stomach and heart."
Unique	"It is unique to the senses and unique in the operating hours as we have stalls open 24 hours."
Stylish	"You can eat curry in a very expensive restaurant and you can also find it at the hawker stalls by the roadside; so stylish referred to how you can go about the thing (dining atmosphere)."
Flavourful	"Malaysian food is so rich in flavours, it is so rich in colours and it has got a lot of herbs and spices that makes it very interesting. I would say that it is very fascinating."
Alfresco dining atmosphere	"We dine outside although there are air-conditions but Malaysians always dine outside under the stars."
Culinary adventure	"You can experience the different cooking styles, the culture involved and made in the food."
Sample of cultures	"You get to interact with local people as the interaction is very important. Your eyes will look around and the people are bustling pass by you. Then you will see the hawkers, the fire here and there. So to me, that is great."

also denotes the nature of Malaysian food culture, in which reflects the country's image as a food destination. Table 3 presents the themes with supporting quotes extracted from the interviews that refer to the description of Malaysian gastronomy characteristics.

Malaysian Food: A Representative of the Malaysian Gastronomic Culture

There were 49 types of food suggested by the informants in this study. However, only 18 items with the frequency value equal to or above 10 are presented in Table 4. "Sate" had the highest frequency (165) throughout the four focus group interviews. This is followed by 'Nasi Lemak' (coconut milk rice) which occurred 123 times. There were various versions of 'Laksa' suggested by the informants; for instance 'Laksa' from each state in Malaysia, 'Asam Laksa', curry 'Laksa' and others. To condense these data, all the types suggested were grouped under 'Laksa' varieties with 95 times of occurrence.

TABLE 4
Malaysian Food.

No	Type of food	Frequency
1	Sate	165
2	Nasi lemak	123
3	Laksa varieties	95
4	Roti canai	85
5	Rendang	71
6	Teh tarik	52
7	Char kuey teow	30
8	Lemang	28
9	Ulam	19
10	Bak kut teh/chi kut teh	18

Table 4 (*continued*)

11	Chicken rice	18
12	Ikan baker	15
13	Masak lemak	13
14	Sambal belacan	12
15	Murtabak	11
16	Nasi goring	11
17	Nasi kerabu	10
18	Ketupat	10

The food items given in Table 4 are common food types shared among fellow Malaysians, except for 'bak kut teh' (herbs soup with pork) which contains pork which is considered as unlawful in Islam. Due to cultural assimilation and understanding of each other's sensitivity, a new version of 'bak kut teh' i.e. 'chi kut teh' is made available for all the races in Malaysia to enjoy the good values and luscious taste of the soup which is made from a variety of herbs.

Most of the food types suggested by the informants were among the 100 food items listed as Malaysian national heritage which was announced by the Ministry of Unity, Culture, Arts and Heritage. The former minister of Unity, Culture, Arts and Heritage, Datuk Seri Shafie Apdal commented that protecting the national heritage items, under the National Heritage Act 2005, will make Malaysians appreciate and keep the country's heritage for future generations (Elis, 2009).

Actions Proposed to Enforce Malaysia as a Food Destination

The enforcements proposed to accelerate Malaysia as a food destination were

classified under three themes; namely, information resources, tourism product, and food activities. The themes were arranged in descending importance, where information resources were the main concern of all the informants in the study.

TABLE 5
Proposed Enforcements.

Theme	Proposed Enforcements
Information resources	Brochures
	Information booth
	Food destination map
	Kuala Lumpur, the basis for tourists' exposure
Tourism gastronomic product	Convenience pack food ingredients
Food activities	Food festival calendar year
	Food tourism as part of travel package

A quote extracted from an informant's conversation is as follows:

"Malaysian Tourism Board should inform what type of food (to be promoted) you know, circulated more food brochures to the public..."

Another informant suggested that more information booths should be set up for the convenience of tourists. The description is as follows:

"... In Kuala Lumpur area, Bukit Bintang has one booth and about 200m or 100m away they have another one (information centre) so the visitors can easily get information from the centre but it (information centre) is not enough."

Another addition to the same theme is regarding the map of food destinations in Malaysia. An informant suggested that hotels take an active role in promoting food tourism by inserting maps on food tourism in the country. The quote extracted is as follows:

"... Talking about food tourism, it is a very big, very huge (issue) and most of the pamphlets in hotels (in Malaysia), have no maps or information about food tourism. We should do a map of food tourism like in Selangor where is the best place to eat and so on."

Another informant suggested Kuala Lumpur as the starting point in educating tourists about food in Malaysia. The description was extracted as follows:

"... Kuala Lumpur has everything that you can find in other states which can be found in Kuala Lumpur to a certain extend. Except that of course in Penang, you'll get more authentic 'Char Kuey Teow', it's nicer and in Ipoh you'll get better 'Hor Fun'. So as in Kuala Lumpur, you can start with Kuala Lumpur, just to educate them on how would the place is. Ok, on their next trip, if you educate them well, they will come back to Malaysia, (and) then they can start going to Penang as well..."

The second theme identified was tourism gastronomic product. A few informants recommended that Malaysian food ingredients be packaged as souvenirs at the country's airports for the tourists to experience cooking Malaysian food in their home countries. This is to add value to their food experience in Malaysia by extending it to their homes. For example, one of respondents stated that:

> "... Probably you can package in the 'mengkuang' (one of the Pandanus species) basket of food ingredients to take home as souvenir which can be sold at the airport and they might like to try something.... I've already ate this particular food but how to cook it (without the ingredients) and at the airport before departing, at least I have a souvenir pack of 'rendang' ingredients or spices, I have 'masak merah' paste, I have this Chinese black pepper, so I can buy one of these packets to bring home..."

Finally, the last theme originated from the data was food activities. Travel packages were proposed to add food tourism as a part of the activities for tourists who are interested to explore the local cuisine. This was suggested as the starting point in educating international tourists regarding the food destinations in Malaysia. On the other side of the coin, another informant recommended that MTPB develop a calendar year to particularly promote the different food festivals and activities

throughout the country. For example, each month in a year will be assigned to promote a certain kind of food. This would enable international tourists as well as domestic tourists to gain knowledge about the culture or the meaning behind Malaysian food. The quotes extracted from the informants' conversation are presented below:

> "… but then if they really look into the whole package, I think it's worthwhile because when we talk about tourism there may be like the travel package ah... and those kind of things. They go to the jungle, so we can still promote our own food like maybe the native's food in Malaysia. They never (have) been introduced to all over the world! When you go to Borneo (Sabah and Sarawak), you can go there, eat there, have their food, I think they have that but not really well known. Probably they need to develop this one, the food tourism."

> "In my point of view we need to do a lot of activities, the whole calendar of the year, 12 months. Because only 'Ramadhan', people know our activity, a lot of food activity. But if January, February and other months, we (should) have food tourism activities, hawker food and everything that could create people awareness like this month we have to go to Penang. So we need to do all these and people can recognise that we have this we have that."

DISCUSSION AND CONCLUSION

Formerly, food was considered as one of the determinants of a destination's image in attracting potential tourists (Yau & Chan, 1990; Rittichainuwat *et al*., 2001; Govers *et al*., 2007). However, food is becoming a crucial determinant that contributes to the growth in tourism at present, and this is particularly due to the rising interest among culinary tourists (Hashimoto & Telfer, 2006; Okumus *et al*., 2007). In due course, research focusing on food and tourism is on the rise. Researchers argued that food can be a flamboyant image for tourists to retain information of a particular destination, and through eating local food tourists can get to experience a truly authentic cultural tradition and have a longer lasting memory on a particular destination (Okumus *et al*., 2007). Hence, images that meet tourists' expectations will definitely satisfy them, and this will in turn repeat visitation and the likelihood of recommending it to their friends and family will also increase (Chen & Tsai, 2007; Lee *et al*., 2007; González *et al*., 2007).

Traditional cuisine and gracious hospitality are the strengths and positive encounters that Malaysians possess. This study was undertaken due to the rise of food consumption in destinations. Through qualitative approach using focus group interview on the image of Malaysian gastronomy, the definitions, characteristics and types of the food that best illustrate Malaysian food were discussed. In more specific, there are five definitions of Malaysian food, and these include diverse sensory experience, cultural food, hot and spicy, binding grounds and meeting of cultures. Meanwhile, there are eight characteristics of Malaysian gastronomy identified; tinged human senses, easy access, unique stylish, flavourful, alfresco dining atmosphere, culinary adventure and sample of cultures. Although the findings are not generalizable, this study has presented a preliminary groundwork to develop an understanding of what people attached to Malaysian food, in succession to forming an image to be capitalized as a source to market Malaysia.

The findings in this study are definitely useful and crucial to hoteliers and MTPB in gearing up their strategies to promote Malaysia to a higher ground in the food tourism niche market. The multicultural society in this country has contributed to the richness and diversity of Malaysian food; for this reason, the government should aggressively market food tourism as a product that can lure foreign visitors. Different tastes and flavours can be found from Perlis to Johor, as well as Sabah and Sarawak.

Besides, the image attributes identified may provide a more informed and systematic basis for marketing and positioning strategies to managers, marketers in the hospitality and tourism industry on Malaysian gastronomy. Additionally, this study may also assist food marketers in developing a comprehensive strategic marketing plan that focuses on targeting food tourists. Ultimately, this study can serve as a basis for further research on the brand image of Malaysian

food. Future studies could test the items retrieved from the present research by using a quantitative method. However, there are also limitations which should be highlighted here. The findings could not be generalized as they were merely the judgments of 31 informants who had participated in the focus group interviews for the present research purpose.

Finally, it is expected that this study will enrich the body of knowledge in the hospitality and tourism industry, since there have been very few studies reported in this area, particularly in Malaysia. Therefore, the study was carried out to fill in the gap in the food tourism literature, particularly in the Malaysian context.

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PERTANIKA
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The Impact of Empowerment on Emotional Labour:
A Conceptual Framework

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ABSTRACT

This conceptual paper investigated the importance of employee empowerment and its impact on emotional labour in securing success of service delivery. This study advocates that empowerment is essential and also a key factor in the development of service quality and customer satisfaction. It is predicted that employees who are empowered and display suitable positive emotions at work may be able to manage their emotional labour efficiently. Therefore, the major goal of this paper was to develop and propose a conceptual framework on the impact of empowerment and positive emotions on emotional labour. It aimed to help marketers and managements to have a better understanding of empowering front-line employees in the organisation. Accordingly, this study conceptualised the relationships between empowerment, positive emotions, and negative emotions with deep acting, surface acting and expressions of naturally felt emotions. The model was developed based on the extent literature in services marketing, organisational behaviour and services management literature. Meanwhile, structural equation modelling was proposed to analyse the relationships among the predicted antecedents with their outcomes. The paper foresees contribution in services marketing literature as well as hotel management literature on the importance of empowering employee and its impact on emotional labour.

Keywords: Empowerment, emotional labour, service quality, customer satisfaction, front-line employees

INTRODUCTION

Employee is always regarded as an important ingredient in maintaining sustainable competitive advantage of an organization. This is especially important in the current uncertain economic climate and highly

talented competitors. The review of literature and evidence from empirical research has stressed on the importance of customer-contact employees in the provision of service quality and customer satisfaction. Similarly, the provision of the 'moment of truth' by customer-contact employees is critical in ensuring high service quality which can further contribute to customer satisfaction. Previous literature has also emphasised on the influence of service quality and customer satisfaction in relation to employee management; however, not much evidence is available to highlight the impact of management strategies, such as empowerment on service quality and customer satisfaction, specifically from the customers' perspectives. Jain and Jain (2005) claimed that generating an emotional bonding with customers could bring to the establishment of a competitive advantage which promises continuous survival of an organisation. Similarly, Grayson (1998) posited that the articulation of certain emotions typically forms part of employees' job requirement, particularly in the performing services job. To date, however, very little is known about and less empirical work has been carried out on the area of employees' emotions and its influence on customers. It appears that service employees, especially those who are dealing face-to-face with customer, require suitable emotions which could help them perform well in organisations. In more specific, the performance delivered with an engagement of the right emotions will lead them to perceive service as important

and to ensure that customers' expectation is met and eventually leads to customer satisfaction.

The concept of 'emotional labour' has been widely discussed in marketing literature. Emotional labour notion requires employees to regulate their emotions in conforming to organisational display rules. Obviously, managing emotions is difficult, especially at work, where employees face a large number of customers with different types of attitude and behaviour.

RESEARCH BACKGROUND

The behaviour of the service provider plays an important role in customer evaluations of service (Bitner, 1990; Hartline *et al.,* 2000). Thus, the attitudinal and behavioural responses of these service providers are important because of the interactive nature of service delivery. In general, these responses affect customers' perception of the service encounter and judgement on service quality can be either positive or negative (Bitner, 1990). Empowerment of employees who are employed as parts of management strategies to achieve organisational objectives appears to be on the rise in the organisation. It is often described as the act of giving people the opportunity to make decision at the workplace (Vogt, 1997) or the act of granting power to the person being empowered (Menon, 2001).

Some evidence of empowerment (for example ability, willingness, competence, control) possessed by the employees has contributed to customer satisfaction in the service encounter (Bitner *et al.,* 1990;

Bateson, 1985). Several studies carried out in the recent years examined the notion that appropriate individual displays of feelings have a strong impact on the quality of service transactions (Grandey & Brauberger, 2002; Kleinke *et al.,* 1998; Rafaeli & Sutton, 1987, 1989, 1990; Van Maanen & Kunda, 1989). Indeed, a service organisation is dependent on the emotional display of the service provider so that the expectation of the customer can be met (Lashley, 2002). For that reason, service encounters undoubtedly require the service provider to be engaged with an emotional display which is often termed as 'emotional labour' which carries an exchange value.

This type of emotional labour could affect both the service provider and customers in different ways, either positively or negatively. However, this study was more concerned with the impact of empowerment on emotional labour. It is argued that management techniques, like empowerment, could assist in creating an appropriate 'inner psychological state that is in harmony' or suitable with positive emotion in the service encounter (Lashley, 2002). In fact, empowerment is claimed to have a positive impact on both attitudinal and behavioural responses of service provider (Chebat & Kollias, 2000).

Drawing from services marketing and management theories, this paper proposed exploring the effects of empowerment and emotion that are suitable in a high contact service. Despite its widespread importance in delivering service excellence to customers and also a growing amount of

attention in the academic literature on the topic, little is known about the importance of empowerment and its outcomes. Moreover, almost none empirical research has attempted to validate the impact of empowerment on emotional labour. In essence, this paper will try to find out the impact of empowerment on each individual emotional labour facet, namely, surface acting, deep acting and the expression of naturally felt emotions. This paper made use of some previous service marketing theories as the organising framework to propose the drivers or antecedents of emotional labour and its selected outcomes.

Hence, the purpose of this paper was to propose a conceptual framework to study the impact of empowerment on emotional labour and its associated outcomes. Besides empowerment, two other variables, positive emotions and negative emotions, were also included and proposed to be related to emotional labour. In addition, emotional labour was proposed to be related to outcomes, such as service quality, customer satisfaction and word-of-mouth recommendation. Consequently, this paper proposed a structural equation model to test these relationships and also validate the proposed empowerment impact on emotional labour. Thus, it was the main purpose of this paper to demonstrate that empowerment has the potential in reducing the effect of emotional labour, which may lead to better organisational performance.

The organisation of this paper is as follows: First, the research background of the study is considered. Next, the review

of literature is discussed, and the empirical evidence, which supports the present proposed framework and hypothesised model, is also reviewed. Subsequently, the explanation on the proposed structural model, as well as proposed methodology, is provided. Following this, discussions and suggestions for future empirical research are presented. Finally, this paper concludes by giving a discussion on the conclusion.

LITERATURE REVIEW

The previous section has developed an understanding of the importance of customer contact employees and their role in the service organisation. The underlying assumption is that the employees are able to deliver a good quality of service if they are motivated, informed, empowered and well-rewarded by the organisation they are working for. Another key criterion that plays an important role in the performance of employees is the management of emotion during service delivery. As mentioned earlier, the emotions of employees have, to some degree, an influence in shaping their behaviour, attitude and performance. Thus, this section explores the concepts and issues of emotions in further detail with a specific focus on emotional labour which is the main concern of this study. This section also provides some debates on the potential link between empowerment and display of employees' emotions, particularly the emotional labour of employees.

Research on the emotions has only recently begun to examine the role of emotions and their effects in workplace (Brief & Weiss, 2002), despite its pervasiveness and inseparability in the human experience and organisational life (Glomb & Tews, 2004). The role of emotions in the workplace, for example, has gained more attention in the last decade (Hochschild, 1983; James, 1989; Rafaeli & Sutton, 1987, 1989, 1991; Van Manen & Kunda, 1989; Wharton, 1993). The outcomes suggest that the way an individual displays feelings has "a strong impact on the quality of the service transaction, the attractiveness of the interpersonal climate and the experience of emotion itself" (Ashforth & Humprey, 1993, p. 88). 'Emotional labour' is one of the significant areas that has received increased attention from research on emotional areas that have been studied so far. In particular, emotional labour has a special place and relevance in the service encounter (Bowen *et al.,* 1990; Bowen & Schneider, 1988; Brown *et al.,* 1991) because the performance of customer service providers is regularly seen as strongly affecting customers' perceptions of product quality of goods (Bowen *et al.,* 1989). Nevertheless, not much research has been conducted in relation to the role of emotional labour and its impact on customers. Most research concentrates on the negative impacts of performing emotional labour (Ashforth & Humprey, 1993; Brotheridge & Grandey, 2002; Pugliesi, 1999) from the employees' point of view without considering the positive side of it. Moreover, most research still focuses on conceptual or theoretical basis. Additionally, where such research

has been undertaken, it has typically been conducted in the context of a developed country which has apparently overlooked the developing countries where cultural and value differences may be of particular importance.

Emotional labour is first viewed by Hochschild (1979, 1983) as the performance of various forms of emotion work in the context of paid employment. She defines emotional labour as, "the management of feelings to create a publicly observable facial and bodily display" (p.7). This definition implies that emotional labour is a process of emotion management in which individuals regulate their true emotions by displaying what they perceive as right and acceptable to put on show in the workplace. These concepts accentuate on how emotions and their expression are actively generated and managed in the context of social constructions (Thoits, 1989). On the other hand, Ashforth and Humprey, (1993, p. 90) define it as, "the act of displaying the appropriate emotion (i.e., conforming to display rules)". Morris and Feldman (1996a), however, define emotional labour as "the effort, planning, and control needed to express organizationally desired emotion during interpersonal transactions" (p. 987). This definition, according to these two authors, is underlined by four assumptions that they regard as warranting more attention. The assumptions include (1) interactionist model of emotion; (2) degree of effort or 'labour' (p.988) needed in expressing emotions; (3) expression of emotion that now becomes a market place

commodity and finally, (4) standards or rules that dictate how and when emotions should be expressed.

The conceptualization of emotional labour is famously introduced by Hochschild (1983).

Following this, three most influential conceptualizations of emotional labour were established by several organisational theorists like Ashforth and Humprey (1993), Morris and Feldman (1996a) and Grandey (2000) who have also contributed to the confusing nature of an emotional labour definition. Following this, the recent effort in renewing and redeveloping the conceptualization was made by other authors like Zapf (2002) and Glomb and Tews (2004).

In general, each of these conceptualizations made judgements that emotions are being managed at work so that the displayed rules could be met as stated by the organisation's outcomes of emotional labour. Each of these studies also showed contradictions in terms of how to define and conceptualize emotional labour. These contradictions, according to Brotheridge and Lee (1998), will create difficulties for future researchers. For example, Hochschild's work outgrowth from the dramaturgical perspective of customer interactions (Goffman, 1959; Grove & Fisk, 1989), where the customer is the audience, the employee is the actor, and the work setting is the stage. This outlook on behaviour concentrates on customer interface as providing the performance stage for employees which involves impression

management skill. In addition, Hochschild's perspective proposed two main ways for actors to manage emotions; through surface acting, where employees regulate the emotional expression and through deep acting, where employees attempt to modify feelings in order to express the desired emotion. In line with this, Grandey (2000) argued that emotional labour acts as a process of regulating feelings and expression of emotions in order to achieve organisational goal. This regulation of observable expressions of emotions is done through surface acting and deep acting. Moreover, Ashforth and Humprey (2003) and Diefendorff *et al.* (2005) suggested that the expression of naturally felt emotion also forms a part of emotional labour. Thus, based on these conceptualizations (Grandey, 2000, Diefendorff *et al.*, 2005), the current paper proposed a model of emotional labour, including factors hypothesized in association with surface acting, deep acting and the expression of generally felt emotion.

Accordingly, this paper attempted to shed light on the issue by looking at the important factors affecting on emotional labour. It is argued in this paper that there are several components or factors that may influence the emotional labour as perceived by customers. Hence, drawing on the services marketing and management theory, empowerment and positive emotions was expected to positively influence emotional labour and have positive effect on the outcomes, such as service quality, customer satisfaction and word of mouth recommendations. The relationships

between the constructs of the conceptual framework, model and derivation of relevant hypotheses are discussed in the following section.

Antecedents and Outcomes of Emotional Labour

Conger and Kanungo (1988) defined empowerment as "a process of enhancing feelings of self-efficacy among organisational members through the identification of conditions that foster powerlessness and through their removal by both formal organizational practices and informal techniques of providing efficacy information" (p. 471). A qualitative study conducted by Greasley *et al.* (2005) revealed that an empowerment of employees could provoke a strong emotional response. The emotional responses are prompted when employees feel that they are a valuable member of staff; when management takes into account their suggestions and values their effort. This brings a great sense of satisfaction, feel a high level of self-esteem at the same time and thus, really take pride in their work. Based on this, Greasley *et al.* (2005) argue that there is a clear relationship between empowerment and self-esteem, indicating that this perceived "softer" emotional response can have practical consequences. Similarly, Nykodym *et al*. (1994) found that empowered employees are able to reduce conflicts and ambiguity because they are more capable and in better control (to a certain extent) at their workplace. They also suggested that this situation has been helpful in reducing

employees' emotional strain. Thus, it appears that the empowerment of employees is capable of reducing the negative feelings or negative emotions of employees. In line with this, it is therefore reasonable to consider that empowerment may have an influence in reducing the impact of emotional labour. In particular, it could be argued that empowerment of employees will have a positive relationship with expression of naturally felt emotions, as well as deep acting and negative relationships with surface acting. Thus, the following hypotheses are suggested:

H_{1a}: Perceived empowerment of employees is positively related to expressions of naturally felt emotions.

H_{1b}: Perceived empowerment of employees is negatively related to surface acting.

H_{1c}: Perceived empowerment of employees is positively related to deep acting.

Lazarus (1993) defines affectivity as a general tendency to experience a particular mood (e.g. to be happy or sad) or to react to objects (e.g. jobs, people) in a particular way or with certain emotions. There are two kinds of affectivity, which are positive and negative. Whenever someone feels enthusiastic, active and alert, then that person is considered to have positive affectivity (Morris & Feldman, 1996a). In contrast, negative affectivity includes a variety of aversive mood states like anger, contempt, disgust and fear

(Watson & Telegen, 1985). Previous research has provided evidence (Morris & Feldman, 1996b), where both positive affectivity and negative affectivity are correlated with emotional labour. Typically, positive emotional expressions lead to better customer service performances. Thus, it makes sense to suggest that individuals that are high on positive emotions may do less deep acting and are able to express their naturally felt emotions. Similarly, individuals high on negative emotions may do more surface acting and may not be able to express their emotions naturally. Therefore, it can be argued that affectivity is very important in performing emotional labour. Based upon these ideas, the following hypotheses were constructed:

H_{2a}: Perceived positive emotions of employees are positively related to expression of naturally felt emotions.

H_{2b}: Perceived positive emotions of employees are negatively related to surface acting.

H_{2c}: Perceived positive emotions of employees are positively related to deep acting.

H_{3a}: Perceived negative emotions of employees are negatively related to expressions of naturally felt emotions.

H_{3b}: Perceived negative emotions of employees are positively related to surface acting.

H_{3c}: Perceived negative emotions of employees are negatively related to deep acting.

Grandey (2000) argued that surface acting and deep acting are two distinct methods in performing emotional labour. Deep acting may help employees to act in more appropriate manners compared to surface acting. Surface acting, for example, was found to be negatively related with job satisfaction. On the other hand, deep acting appears to be related to job satisfaction (Gosserand, 2003) because individuals may feel a sense of personal accomplishment when they display suitable emotions. Surface acting was found to have a strong relationship with display rules requiring the hiding of negative emotions (Grandey, 2000). In contrast, deep acting was found to be more related to display rules that require the expression of positive emotions. Expressions of naturally felt emotions require individuals to ensure their emotional expressions coincide with organisational display rules and expectations. Delivering high quality of service, as well satisfying the customers, is typically what the organisation expects to achieve. Thus, it could be argued that expressions of naturally felt emotions can promote service quality and customer satisfaction and thus lead customers to promote the organisation through words of mouth. Similarly, it is assumed that employees who perform deep acting may face the same situation where these employees who try to experience and display desired emotions may help deliver service quality and customer satisfaction due to their high levels of positive emotions.

In general, it is proposed that expressions of naturally felt emotions and deep acting may have positive impacts on service quality, customer satisfaction and word-of-mouth recommendations. However, surface acting may, on the other hand, have negative impacts on these outcomes. Thus, the following predictions are made:

H_{4a}: Expressions of naturally felt emotions is positively related to service quality

H_{4b}: Expressions of naturally felt emotions is positively related to customer satisfaction

H_{4c}: Expression of naturally felt emotions is positively related to word-of-mouth recommendation.

H_{4a}: Surface acting is negatively related to service quality.

H_{4b}: Surface acting is negatively related to customer satisfaction.

H_{4c}: Surface acting is negatively related to word-of-mouth recommendation.

H_{4a}: Deep acting is positively related to service quality.

H_{4b}: Deep acting is positively related to customer satisfaction.

H_{4c}: Deep acting is positively related to word-of-mouth recommendations.

Firms have sought to differentiate themselves through the quality of service interactions with customers as competition has intensified. Certainly, emotional labour has implications for service quality (Korczynski, 2002). Apparently, emotional labour can be seen as relevant in four of the five dimensions in the

SERVQUAL model of Parasuraman *et al.* (1991). According to Korczynski (2002, p.139), this model proposes that 'frontline employees' appearance and demeanour should be positive for customers, that they should demonstrate willingness to help customers, that they should be courteous to customers and appear trustworthy and they should show individual empathy towards customers. Similarly, Bailey and McCollough (2000) also contend that three of these five dimensions, namely, responsiveness, assurance, and empathy, have potentially high emotional content. Thus, if management is determined to ensure that customers receive high service quality, they must also be concerned with emotional labour (Korczynski, 2002). Based on the above discussions, it could be asserted that emotional labour could potentially be positively associated with service quality.

H_{5a}: Service quality is positively related to customer satisfaction.

Service quality has long been associated with achieving customer satisfaction (Gilbert & Horsnell, 1988), as well as word-of-mouth recommendations. Meanwhile, a considerable amount of research has concentrated on service quality dimensions as the major determinants of customer satisfaction (Parasuraman *et al.,* 1988; Brown *et al.,* 1993; Zeithaml *et al.,* 1996). Hurley and Estelami (1998) argued that service quality and satisfaction are distinct constructs and there is a causal relationship between the two. As such, it is expected that perceptions of service quality affect feelings of satisfaction, which reciprocally influences customer satisfaction. Similarly, it is argued that customers who are satisfied with the delivered service may promote and tell others about the service and the organisations. It is therefore convenient to propose that:

H_{5b}: Service quality is positively related to word-of-mouth recommendation

H_{5c}: Customer satisfaction is positively related to word-of-mouth recommendation

Conceptual Framework

Based on the preceding discussions and literature reviews, the proposed conceptual framework of the present paper, shown in Fig.1 including 21 main hypotheses, was proposed to be tested. The antecedents of emotional labour are identified as empowerment, positive emotions and negative emotions. Hypotheses 1 – 3 reflect the influence of the key driver antecedents on individuals' emotional labour facet, respectively. Meanwhile, hypotheses 4 - 6 identify the effects of surface acting, deep acting and expressions of naturally felt emotions on service quality, customer satisfaction and word-of-mouth recommendation, respectively. Finally, hypothesis 7 proposes a linkage between service quality, customer satisfaction and word-of-mouth recommendations, as well as a linkage between customer satisfaction and word-of-mouth recommendations.

The intent of the proposed conceptual framework is to advance knowledge based
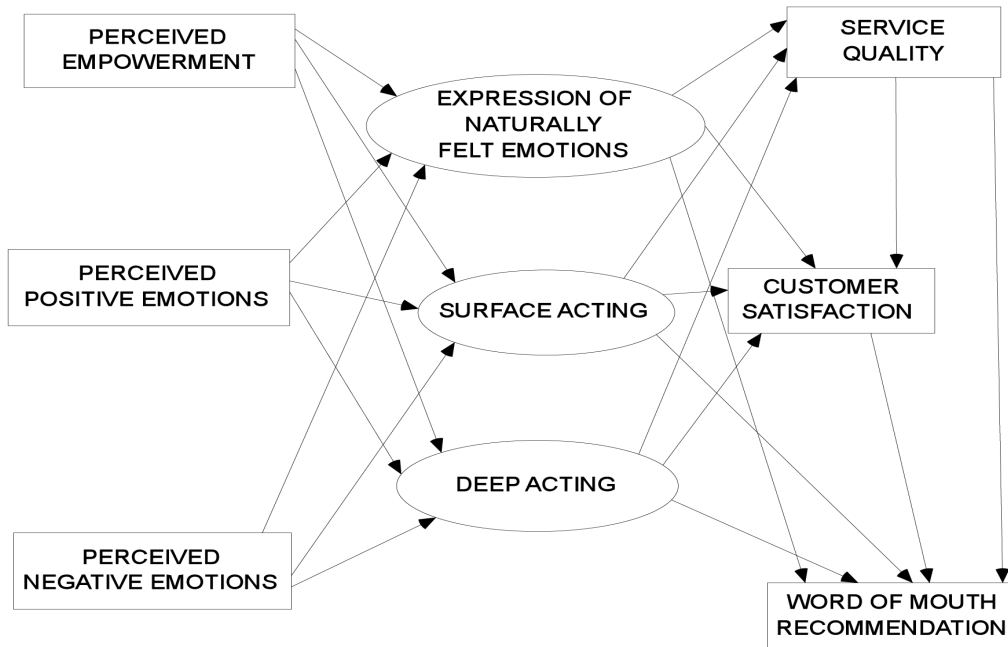
Fig.1: Proposed Structural Model – Emotional Labour Antecedents

on the impact that empowerment may have on emotional labour and to provide a comprehensive emotional labour model for the service industry.

PROPOSED METHODOLOGY

The paper proposed using the quantitative method, i.e. survey to collect the data. As noted earlier, one of the goals of the paper was to develop the structural equation model. This was achieved by specifically hypothesizing each measure which represents each construct in the model that has not been previously explored in the literature.

The structural equation modelling approach, using a two-step process, was proposed for this research. This involved testing the proposed measurement model and the structural model or path analysis (Bollen, 1989, Schumacker & Lomax, 1996). First, a series of confirmatory analysis was conducted to check the factor structure of all scales. Multiple indicators for each proposed construct were proposed to be applied in the measurement model. Using Anderson's (1987) equation, the proposed measurement model could be articulated as:

$$\iota = \Lambda\,\xi + \delta$$

where ι is a vector of i indicators (such that $\iota_i = \tau_i$ from the composition model), ξ is a vector of k organizational constructs, Λ is an $i \times k$ matrix of pattern coefficients relating each indicator to its posited underlying

construct, and **δ** is a vector of indicator-specific errors (Anderson, 1987, p. 530).

Once the individual construct has been assessed, the hypothesized structural model is tested to examine the proposed relationships among the latent variables. The structural model for the proposed relationship between empowerment and emotional labour and its associated outcomes can be articulated as:

$$\eta = B\,\eta + \Gamma\xi + \zeta$$

According to Joreskog and Sorbom (1984, p. 15), η is a vector of c dependent (endogenous) empowerment constructs, ξ is a vector of d independent (exogenous) emotional labour construct, B is $c \times c$ matrix of coefficients that represent the effects of endogenous constructs upon one another, Γ is a $c \times d$ matrix of coefficients representing the effects of the exogenous constructs upon the endogenous constructs, and ζ is a vector of c residuals (errors in equations, random disturbance terms).

Fig.1 above shows a structural model for three independents or exogenous and their interactions as a cause of one dependent. In this model, empowerment, positive emotions and negative emotions are treated as exogenous constructs, while surface acting, deep acting, expression of naturally felt emotions, service quality, customer satisfaction and word-of-mouth recommendations are regarded as endogenous constructs.

DISCUSSION AND SUGGESTION FOR FUTURE EMPIRICAL RESEARCH

This paper is expected to contribute to the current understanding of the empowerment and its interface with emotional labour dimensions and related outcomes. In particular, it is expected that experiencing emotional labour can be reduced or moderated through the empowerment of the employees, as well as suitable positive emotions. More specifically, suitable empowerment practices designed by the organisation may demonstrate effectiveness in service quality contribution, customer satisfaction and consequently service excellence. Reduced level of emotional labour, particularly through expressions of naturally felt emotions and deep acting, is expected to have positive and significant influence on service quality, customer satisfaction, as well as word-of-mouth recommendations.

Thus, employees who perform well due to the positive and natural emotions are expected to influence the customers' perceptions of the services delivered. Similarly, it is presumed that employees who perform deep acting will also contribute to service quality and customer satisfaction. Having said this, employees who view participating and give their fair share will tend to value the service more favourable since they have established social relationships with the organisation in general and with the customers in particular. The employees' positive emotions are also expected to

have positive relationships with service quality, customer satisfaction and word-of-mouth recommendations. Meanwhile, employees who display positive emotions are expected to influence the customers to view services favourably and this will further lead to positive service experience as well excellent service. Similarly, it is predicted that employees who maintain negative emotions will not be perceived favourably by customers. Emotional labour, ultimately and in particular, expression of naturally felt emotions and deep acting, are predicted to have significant positive relationships with service quality, customer satisfaction and word-of-mouth recommendations.

A conceptual framework of empowerment and emotional labour proposed here could serve as a basis for further empirical research and contribute to a more comprehensive understanding of these two concepts. This paper intended to extend the conceptual framework and investigate within the hotel service environment. Hotel organisations are deemed to be suitable to test the model as the industry has become one of the most competitive industries among the service industries. Its competitiveness has therefore forced hotels to find ways to attract new customers and retain existing ones. Moreover, due to the nature of the hotel industry (i.e. highly intangible, perishable, heterogeneous and highly variable), it therefore demands a special attention because of the difficulty in meeting customers' demands. Additionally, this is particularly important as customers nowadays have higher expectations, less

tolerance, and greater sense of significance and power and growing affluence.

This paper was expected to contribute to the theoretical advancement in the field of services marketing and hospitality and tourism industry by empirically testing the structural model to develop a concept of emotional labour in the hotel industry. Theories which are related to the role of employee empowerment have been widely discussed, but almost none has empirically tested these theories in particular and its antecedents in the hospitality industry.

From a practical standpoint, the findings of the study are anticipated to be useful in planning appropriate marketing strategy for an organisation. The management can utilise the findings to satisfy the needs and wants of the customers, and thus exceed their satisfaction by delighting them.

CONCLUSION

This paper has deliberated that empowerment is significantly associated with an interest in gaining competitive advantage. Empowerment is suggested to be a technique to reduce the emotional labour experienced by employees who will contribute to higher service quality, greater customer satisfaction and word-of-mouth recommendations. The proposed model would serve as a foundation for understanding front-liners in greater detail. Similarly, it was important to test the hypotheses proposed in this paper as very little evidence available to understand the potential impact of empowerment on emotional labour.

Additionally, the ideas behind the study would expectantly play a role in contributing to the new body of knowledge to several disciplines, including service marketing, organisational behaviour as well as hotel literatures. In particular, it would provide some guidelines on the potential impacts that empowerment could have on emotional labour. Hopefully, the current theoretical framework will provide a basis for more theory-based research in this area. Similarly, the expected findings of the research are hoped to benefit practitioners by providing the potential influence that empowerment may have in reducing the impact of emotional labour among the front-line employees. This paper hopes to lay groundwork for future research on emotional labour and empowerment phenomenon in the services literature, while offering practical recommendations to managers on how to deliver service excellence. Thus, it was crucial for the proposed framework to be tested so that its validity could be provided.

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Policy Implementation by the New Street Level Bureaucrats in Non-profit Organizations: Overcoming the Dilemma

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ABSTRACT

Policy implementation at the bottom by the frontline workers is a variation from the rational top-down implementation process. This paper discusses services transferred from the public to the non-profit agency delivered by the new street level bureaucrats which are different from what the bottom-up scholars have predicted. The actual agency goals are improvised when dealing with emergency cases or case by case basis. Two agencies were selected such as Tri-City Action Program (Tri-CAP) and Cambridge Economic Opportunity Committee, Inc. (CEOC) in Massachusetts, United States of America. Both agencies receive government Block Grant and deliver many similar services. The research method was qualitative, empirical and exploratory. Intensive interviews were conducted to thirty eight employees with various job positions in these agencies. Themes and categories were established to highlight their perceptions. The results showed that the frontline workers in these agencies provide different work solutions in overcoming the dilemma of rigid work environments.

Keywords: Bottom-up approach, frontline workers, non-profit organizations, new street level bureaucracy, policy implementation, people processing organizations, street-level bureaucrats, the War on Poverty Program

INTRODUCTION

This paper attempts to delineate the theories of policy implementations that focus on people processing organizations particularly the non-profit organizations and the frontline workers. The research analysis clarifies assumptions that have been made by other scholars by presenting alternative solutions to problems encountered by these agencies. Consideration of these variations is essential for the future improvement of not only the organizations that deliver welfare services but for the legislative process that undergirds them. This paper illustrates the results of frontline workers using discretionary action to facilitate their work and to deliver services to needy clients. Rigid work environments influence

workers' behaviour and significantly impact the clients' access to agency services. Thus, this paper introduces several feasible ways to overcome rigid work environments in people processing organizations.

The term "street level bureaucrats" used by Lipsky (1969, 1971, 1976, 1980), supported by other mainstream scholars such as Prottas (1979), Weatherley (1980), Elmore (1979, 1980), and Hjern (1982) has made a profound contribution to the study of frontline workers. Their fundamental idea is that the frontline workers in government offices may modify or redefine agency policy to overcome day-to-day problems encountered with clients. Smith and Lipsky (1993) extended their prediction on the frontline workers' behaviour to non-profit organizations, particularly those agencies processing clients' information. They predicted that the frontline workers are the new street level bureaucrats that are likely to apply their personal discretion in determining benefits and opportunities for their clients. The application of discretion by the frontline workers triggers the way policy is implemented at the bottom in the non-profit community organizations. This situation is referred to by Lipsky (1969, 1971, 1976, 1980) and Smith and Lipsky (1993) as inevitable. It raises an essential question for the researcher of whether or not the frontline workers in the non-profit community organizations behave as predicted by Smith and Lipsky (1993) in providing welfare services to the needy communities.

A few scholars like Goodsell (1981), Meadow and Menkel-Meadow (1985), Finlay, et.al (1990), Keiser and Soss (1998), Kaler and Watkins (2001) have analysed critically the Lipsky's model of behaviour of the street level bureaucrats. They applied Lipsky's street level bureaucracy principles to study various programs in the public agencies that provide child support program, food stamps, Medicaid, and AFDC, medical residencies, and community based family planning in Kenya. Based on these scholars' research, workers' behaviours have been examined without distinguishing the entity of the organizations as either public or non-profit. The gap displayed in these scholars' research allows this article to further analyse the workers' behaviours, specifically in the non-profit organizations. This study is important to the bottom-up policy implementation approach, as workers are viewed as mediators of policy to people. As their roles and actions augment the policy process, assessing the implications of their discretion is vital to understand the framework of top-down and bottom-up approaches.

THE ECONOMIC OPPORTUNITY ACT OF 1964

The involvements of the non-profit community organizations in providing welfare services are supported legally by the Economic Opportunity Act of 1964. This act legitimized the War on Poverty program declared by President Lyndon Johnson in 1964 and it was a crucial step

in combating poverty nationally (Levitan & Taggart, 1976; Lowi,1979; Givel, 1991; Clark, 2002). The philosophy behind the Economic Opportunity Act of 1964 addressed the need to redistribute the existing wealth to the poor and to provide opportunities for the needy to earn a decent living and to maintain their families at a comfortable living standard.[1] The War on Poverty program was administered by the federal Office of Economic Opportunity to set standards, procedures and eligibility guidelines. This policy also adopted a coordinated approach to alleviate the causes of poverty by concentrating on several major provisions as outlined in Title I through Title V.[2]

As the strategy is centred on providing opportunities and developing skills through education and training, this legislation emphasizes a strong collaboration among the federal, state and local governments. A combination of intergovernmental resources is fundamental, as the War on Poverty is viewed as a national issue. Besides this cooperation, the War on Poverty legislation has encouraged the community organizations to participate in helping the government to combat poverty as stipulated in Title II of the Urban and Rural Community Action Programs of the Economic Opportunity Act (Moynihan 1970; Brauer, 1982; Haveman, 1987). Title II of the bill also authorizes the federal financial assistance to community action programs as well as giving technical advice. Programs must be developed and conducted at a community level to combat poverty. This is based on the belief that local citizens understand their communities best and they will initiate ideas, resources, and sustain good leadership. Furthermore, Title II of the bill recognizes the need for community programs to be varied and flexible in their approaches in order to meet the local needs and interests. Therefore, programs may be developed in urban and rural areas or wherever poverty is found.

Financial assistance under the Title II is made available to organizations that show concrete progress toward combating poverty and causes of poverty. Organizations that are competent to implement such programs could be the public or private agencies or a combination of both that has the resources or capacity to develop, coordinate and operate an effective community action program. This title directly encourages a maximum community participation in order to reach individuals who are in need. Community organizations are selected strictly to ensure that the chosen community agencies possess the ability and capacity to implement poverty programs successfully.

PROBLEMS AND PURSUITS

The requirements for Community Action Programs (CAPs) to be developed based on local needs and interests, as addressed in Title II of the Economic Opportunity Act (1964) were closely regulated by the government and became highly political (Greenstone & Peterson, 1973). Generally the chosen CAPs comprised of educated people to manage their organizations, and

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[1] Congressional Quarterly, Congress and the Nation, 1965-1968 (Washington D.C., 1969) Vol. 11, pp. 650
[2] Economic Opportunity Act, Pub. L. No. 88-452, 88th Cong., 2d Sess. 78 Stat. 508 (pp. 2900-2911)

they possessed great advantages to write better proposals for federal grants than the unselected community agencies. In this case the chosen CAPs which were mostly located in urban cities had a better chance than the CAPs in rural areas (Greenstone & Peterson, 1973). Furthermore, to generate competition among the community action agencies is unhealthy and it appears to be inefficient because it delays the implementation of programs to alleviate poverty. As a matter of fact, to treat poverty as a political condition is a risky matter because the urban political power is resistant to change, although following a federal centralized plan would allow speedy funding distribution to state and local agencies (Greenstone & Peterson, 1973).

Following this critique, there has been a widespread disappointment that the implementation of War on Poverty program failed to solve the problems of poverty. Several scholars, Dolbeare and Hammond (1971), Piven and Cloward (1971), Van Horn and Peter (1976), Aaron (1978), Porter (1976), Henig (1985), and Haveman (1987), offered reasons for the failure of this program such as overly broad policy mandates, communication distortion and misinterpretation, federal versus local diversity and interests, and different priorities. Other additional critiques included the lack of information and research, and unfair competition between rich cities and poor cities that affect grants distribution to the poor. All these critiques asked the government to review its administrative weaknesses and came up with a better plan

to improve their management of poverty policies.

THE OMNIBUS BUDGET RECONCILIATION ACT (1981) – OBRA

The Community Action Programs in the War on Poverty were asked to combat poverty, but they had little access to the policy making process, and they were weak in financial resources (Greenstone & Peterson, 1973). On the other hand, OBRA[3] marked the federal government's retreat from directly administering the Great Society Program of the 1960s. OBRA of 1981 provided better power decentralization from top to bottom than the Economic Opportunity Act of 1964 (William & Aponte, 1985). The decentralization of the administration from the federal to state level reduces paper work complexity, and it allows better control over local community agencies with regards to policy administration (Givel, 1991). As a result, this autonomous flexibility provides some leeway for local agencies to plan programs and to meet local needs and demands accordingly.

Moreover, as OBRA of 1981 designated state agencies to administer the Community Service Block Grant as well as to approve or disapprove local agencies' applications, OBRA also protected the existing agencies from severe budget reduction by extending community agency funds until 1984, provided that the existing agencies were entitled to receive funds in 1981.[4] Although

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[3] Omnibus Budget Reconciliation Act, Pub. L. No. 97-35. 97th Cong., 1st Sess., (1981) pp. 1-1668
[4] Ibid, pp.397

OBRA's main objective is to reduce federal spending for a certain period of years, it also represents a major transition from centralization to decentralization, and from federal to state administration of community service block grant. Presently, the Department of Housing and Community Development for each state works as the director.

OBRA of 1981 emerged as a turning point to improve the administration of antipoverty programs by decentralizing antipoverty programs from federal to state authority. Implications of OBRA on administrative issues are as follows:

- It simplifies the layers of grant distribution from federal to state authorities, thus it reduces unnecessary delay.

- It minimizes the administrative hurdles, allowing states to determine grant entitlements.

- Section 321-2 of OBRA simplifies complex requirements for grant applications by requesting community agencies to state their program objectives and the description of the projected use of funds.

Furthermore, OBRA as a budget resolution legally recognized the need for non-profit organizations to participate in providing welfare services to the public as a way to reduce the federal budget. The impact grows continuously when a number of non-profit community agencies participate actively in providing and delivering welfare services to the local communities. In fact, OBRA requires public hearing on the spending of Community Service Block Grants under revised section 104(a). This requirement allows the public to access information regarding the proposed community development, housing activities, comments and new or immediate needs in the communities.

The implications of two pieces of legislation on non-profit organizations' participation and antipoverty programs can be viewed in two ways. The first is legal recognition to legitimize actions, and the second is legal channel as a means to achieve an end. The former is used to legitimize antipoverty programs and to gather support nationwide without much controversy. The latter is manifested through legislations to set up antipoverty programs, participation from community agencies and elimination of changes in unnecessary bureaucratic administration. For instance, OBRA has helped the community agencies to reduce layers of unnecessary bureaucratic procedures, including grant approval and distribution, speed up antipoverty programs to be implemented as well as encourage the local non-profit community agencies to apply for grants. The antipoverty programs that are targeted locally are manageable and communities in need can be reached feasibly. Thus welfare services could be delivered to needy people efficiently.

NON-PROFIT COMMUNITY ACTION PROGRAM: THE NEW STREET LEVEL BUREAUCRATS

There are several important variables related to the study of frontline workers and the Smith's and Lipsky's (1993) prediction on the new street-level bureaucrats in the non-profit organizations. Smith and Lispky developed their theory on the new street level bureaucrats in the non-profit organizations and their prediction emphasized rigid work environments that encouraged workers to exercise discretion. Factors such as insufficient funds, shortages of staff, mounting paperwork, ambiguous and voluminous rules, and conflicting agency goals are reasons for the new street level bureaucrats in the non-profit organizations to exercise personal discretion. A worker's personal discretion was manifested through rationing and routinizing that led to bias, inequality and discrimination in delivering services to clients. Additionally reasons for such outcomes were due to workers in non-profits organizations receiving low wages, few benefits, and facing job insecurity. Consequently, these conditions discouraged the workers from being loyal to the organizations and undermined their commitment toward delivering good services to clients (Smith & Lipsky, 1993). Therefore Smith and Lipsky (1993) assumed that discouraging work conditions affect workers' commitments that will in turn lead to bias, inequality, and discrimination in their services to the clients.

Community action programs are hope for the War on Poverty program to facilitate antipoverty programs. Their participation is vital to improve the lives of the needy populations in their own community. These agencies are formed and operated in their own community and serve the eligible residents only. Tri-City Community Action Program (Tri-CAP) serves residents of Malden, Medford, Everett, and other surrounding areas such as Melrose, Stoneham, Winchester and Woburn while Cambridge Economic Opportunity Committee, Incorporated (CEOC) is concentrated in Cambridge and Somerville. Both agencies are located in Massachusetts and they receive funds from the Community Service Block Grant (CSBG) and they deliver some similar services to the needy communities. Additionally, they share a fundamental goal as the non-profit community action agencies that are established to alleviate poverty. They channel their antipoverty programs to help needy people gain self-sufficiency: sufficiency in basic needs, sufficiency in improving life conditions, and sufficiency in maintaining hope for the future.[5]

Intensive interviews were conducted with a total of thirty-eight respondents in the Tri-CAP and CEOC agencies. Using open-ended interviewing questions and an active probing technique, statements from respondents were recorded and transcribed. The sample represented a wide range of employment levels that ranged from interacting with clients to processing clients' applications to supervising workers. Access to workers in both community agencies was

[5] Tri-CAP and CEOC agencies' brochures and bulletins.

partly determined by the agencies' directors because they identified who were to be interviewed. Then, each person interviewed recommended or identified other colleagues to be interviewed. The respondents included were directors, assistant directors, managers, secretaries, attorneys, paralegals, supervisors, collation specialists, benefit specialists, parents-involvement specialists, coordinators, advocates, fuel generalists, family social workers, translators, and volunteers. Categories and themes reflected the perceptions of those interviewed but they were not verified further.

Insufficient funds and shortages of staff

The most fundamental dilemma in both agencies based on workers' descriptions is insufficient funds that lead to shortages of staff, inadequate facilities, restricted intakes, limited benefits, small programs, and inconvenient locations. These limitations prohibit agencies from expanding or improving their programs to meet people's needs. Shortages of staff create a situation where an employee has to deal with multiple tasks, job overlapping and overworking. This financial scarcity prevents agencies from building a sufficient work force to overcome the mounting paperwork, increasing applications and demands. As a result, workers have little communication among colleagues due to mounting work, and it discourages collective teamwork. An individual's attitude toward work may create an unfriendly environment and thus little cooperation can be garnered. Furthermore, an employee may question an agency's

reward system when asked to do more jobs with fewer benefits than others.

Moreover insufficient funds limit an agency's ability to buy up-to-date technologies to keep up with the escalating applicant records and files. Frequent system breakdowns slow the workers productivity, and loosing data of the established records and files is discouraging when workers have to double their work time to retrieve files manually. The insufficient funds also limit an agency's ability to improve the facilities. For instance, Tri-Cap has three divisions of service where each is located in a different location. These different locations become an issue because the distance limits smooth communication and easy access for clients. In fact, the Tri-CAP energy and weatherization program is located far from the central city where transportation and parking become issues. Additionally the building needs repair and renovation.

Smith and Lipsky (1993) predicted that insufficient funds leads to shortages of staff, low wages, few benefits, and face job insecurity, and results in encouraging workers to exercise personal discretion that leads to bias, inequality and discrimination. However despite these problems, both Tri-CAP's and CEOC's workers show their commitment to serve the clients. They apply personal discretion on a case-to-case basis particularly when dealing with emergency cases. Workers described their willingness to cut screening requirements when they have to face the elderly and the homeless at the food pantry, substance abuse users, and domestic violence victims. Thus, the

insufficient funds and shortages of staff may not influence the workers' decisions to exercise personal discretion in a way that deprives their clients' access to assistance and benefits.

Paperwork and Ways to Get Things Done

Mounting paperwork is tremendous for workers in these agencies, especially for programs that are funded by the government. Most workers admit that paperwork is excessive in their daily jobs. Paperwork includes applications, verifications, follow-ups, appeals, approvals, and monthly/annual reports. Smith and Lipsky (1993) predicted that mounting paperwork leads workers to ration and routinize their daily jobs by simplifying workloads by cutting back on screening requirements, limiting access to benefits for clients, withholding information and delaying services or increasing waiting hours.

Most workers are likely to cutback screening requirements when it comes to emergency cases. Workers attend to a client's emergency needs first and admit to doing the intake later. Workers at the pantry also admit that they will work around an issue, such as proof of residency or social security number, especially when dealing with the homeless, the elderly and perishable food products. Interestingly, the workers admitted that they do not simplify their jobs by limiting access to benefits for clients, withholding information, and delaying services or increasing waiting hours. They described the followings as the ways of overcoming mounting paperwork;

building teamwork, working overtime, bringing work home, and hiring volunteers or seasonal workers during the busiest enrolment seasons.

Therefore, Smith's and Lipsky's prediction that new street level bureaucrats in the non-profit organizations use routine and ration to overcome excessive work does not hold true. The workers explicitly addressed the need to have good teamwork to cope with the organizational demands and the client needs. Most workers also claimed to work overtime and during weekends to keep up with the excessive office work while staying focused on delivering good services to the clients. Dividing jobs among colleagues helps to speed up their work, as each one has his or her own work to complete. In addition hiring volunteers and seasonal workers helps to minimize excessive workloads. The overhead costs are minimized with unpaid volunteers and paid seasonal workers who work only during intake seasons and resign later. In fact, an individual's skill in organizing work also helps to manage excessive workloads within time constraints, as one has to know which work needs to be prioritized to meet deadlines.

Rules and Guidelines: Volume and Clarity

Before further analysis of clarity and volume of rules and guidelines that is applied in both agencies, Smith and Lipsky (1993) predicted that ambiguous and voluminous rules lead workers to exercise personal discretion by modifying rules through ration and routine that result in depriving clients' access to

benefits and services. Although workers admitted that unrealistic guidelines and rules exist, the elements of lobbying, advocating, and attempting to work around the issues showed different results from Smith and Lipsky's (1993).

The federal income guidelines are the main rule that these community agencies refer to in processing their clients' applications. Additional guidelines such as selection criteria, income statements, proof of residency, household size, Social Security number, immunization records for childcare and Head Start, and the Head Start standard performance manual are also mandatory for workers. Although workers believe that these guidelines are clear and easy to follow, guidelines such as income standards are unrealistic to conform to the present standard of living in Massachusetts. Since the federal income guidelines are a fixed standard that applies to all states, this federal standard does not match the regional expectations.

For example, the income guidelines are unrealistic for the low-income families in Massachusetts and New England. The federal income guidelines automatically deny services to a family of three with children that is earning more than the given income standard. Families who fall above the income standard are still poor and they are in dire need of help, but they become ineligible because their income is referred to by the federal income guidelines as "over income." In reality, people live with a net income instead of gross income. These federal income guidelines are unrealistic and

they deprive the needy people eligibility of welfare services. Therefore agencies have to provide "over income" slots, especially for childcare programs for the working poor to be eligible. This service provides 10% of space availability for children to be part of the childcare programs. However, the 10% over income slots are inadequate to supply the high demand in childcare for working poor or single parents.

These agencies are persistent in lobbying the federal government to increase the income guidelines in order to fit this regional standard. Workers' decisions to treat substance abuse, domestic violence and homeless issues as emergency cases allow them to be flexible in processing intakes for clients. As a result workers in community agencies are aware of the unrealistic income guidelines and the difficulties underlying rules regarding benefit eligibility.

Other guidelines that received criticism from workers are the Head Start standard performance manual and the Head Start partnership agreement. The former guideline is tremendously thick and it is discouraging for workers to follow each and every rule thoroughly. Therefore workers become selective in choosing which rules and issues are important to parents and what syllabus is important to be taught in classrooms. The latter is structured with questions that may suggest that Head Start families are in a total mess. Workers are concerned for the well being of the Head Start parents and want their roles to be more as a support team than as a credentialing team. Family service workers believe that the Head Start

partnership agreement should be shorter, with general questions rather than questions that are likely to justify a family condition. For instance, the partnership agreement requires workers to ask about members of the household, problems encountered at home, spouse, gender, and any type of assistance the family is receiving such as food stamps, WIC (Women, Infants and Children), fuel assistance, housing, or rent subsidy. If the family does not know about these services, workers are obliged to inform them. Other questions in the partnership agreement include job training, educational and work goals. In addition workers are mandated by law to ask about child abuse or neglect as well as proper medical and dental care for children.

Further criticism is given to the food stamp and the Department of Housing and Urban Development (HUD) definition for homelessness. The food stamp form is voluminous and unnecessary, with 12 pages of inquiries. The HUD definition of homelessness is vague enough that it would be difficult to determine if someone is homeless, thus it denies him or her. The rules for food stamp application and the HUD definition for homelessness limit poor people from getting the help and resources they need. Workers in community agencies have to work around these problems by representing their clients to the Department of Transitional Assistance office (DTA) for food stamps, advocating for their clients at the DTA or Social Security Income offices (SSI), filing an application for their clients, and helping the homeless with food and referrals to churches for shelters.

Rules and guidelines limit workers from delivering services to needy people on several essential issues with regards to income guidelines, job manuals, definitions for homelessness, and food stamp requirements. Despite these limitations that impede workers abilities to deliver their services to needy people, they attempt to work around the issues with the intention of making sure that needy people get what they deserve. Workers' efforts, such as becoming a representative for their clients to the DTA office and advocating for their clients' rights to services, are important to be recognized. Their efforts also show their seriousness in helping clients, and their roles as community service workers who professionally dedicate themselves to helping the needy people.

Agency Goal: Is there a conflict?

It is essential to look at possible conflict underlying an agency's goal as predicted by Smith and Lipsky (1993) that encouraged workers in the non-profit organizations to exercise personal discretion by rationing and routinizing daily work that leads to bias, inequality and discrimination. The analysis regarding agency goal shows changes in both agencies' goals as ways for these agencies to adapt to new demands and needs rather than inciting conflict. Adding new programs and new goals work as a means to better serve their needy communities. Besides, every worker has his or her opinion of the agency's goal because each person perceives the goal from the different programs in which he or she is involved; therefore it is expected to hear that

the agency goal varies and changes based on individual perception.

As both agencies are non-profit antipoverty organizations, their ultimate goal is to alleviate poverty by helping needy populations. Help is delivered to the needy by providing services that are fundamentally required by local communities. Help is also delivered in the form of empowering needy populations to improve their life conditions through employment training, education, advocacy, and one-to-one guidance. In addition to the goal of alleviating poverty by helping one person at a time, these agencies commit to providing solid help to the needy people for their basic needs such as food and shelter, pro bono legal service, energy and fuel assistance, childcare and Head Start.

Most workers admit that their agency's goals have changed due to service expansion and new program addition. The more services they provide, the bigger the goal becomes. The goals change and evolve based on the most urgent issues at hand. Cases of eviction involving people with mental illness are prominent and community agencies are adding new programs and revising their goals to meet the needs. Cases of substance abuse users who are rehabilitated and need equal access to subsidized housing are also essential to be added to their agency's goals. The relationship between goals and means is intertwined. The majority of workers acknowledge their agency's main goal is to alleviate poverty, but the means of achieving this goal are varied depending on programs, emergent needs or service expansions. Despite changes and additions to each agency's shorter-term goals, series

of observations show that both agencies' goal to alleviate poverty by helping needy people has remained central.

Acknowledging the roots of poverty and the diversity of approaches to alleviate it, adding new approaches to ameliorate poverty through new programs and service expansion are ways to keep agencies up-to-date with new demands. Coping with changes and becoming alert to new community needs is a way for the community agencies to adapt to their complex environments. New cases and approaches indicate that community agencies are reaching out to their communities to deliver solid assistance to them. In fact, most workers in these agencies referred to themselves as community advocacy groups. New cases and approaches bring new opportunities for the community agencies to propose new grants and to keep Congress on their toes with contemporary issues. Federal and State funding mechanisms are continuously refined by debating these issues.

Furthermore, these local agencies have evolved from simple service delivery agencies into client-service agencies. A community agency is not only a medium to deliver services to needy populations but it extends its role to empower them and to improve their unfortunate conditions with training, skills, education, and guidance by helping the clients set an agenda. Workers provide constant follow-up with their clients once an agenda has been set to ensure that clients receive the services that they need.

Overall, the majority of workers show commitment and dedication to their jobs and agency. When workers value their jobs as

rewarding work, this motivates them to treat clients well. Stressful working conditions such as excessive paperwork, time constraints, fraudulent cases, demanding and misbehaving clients are situations that workers described as events that make their jobs challenging. In addition, limited resources and rigid work environments can encourage workers to build teamwork and this has significant implications for the "new street-level bureaucrats" theory and for policy analysis.

IMPLICATIONS ON PEOPLE PROCESSING ORGANIZATIONS

Workers utilize their discretion in delivering services to clients based on needs and circumstances. Despite processing activities such as screening, classifying and labelling clients with new social status and public identity, workers in both Tri-CAP and CEOC do not treat clients as products. They exercise discretion to help their clients with emerging needs despite a set standard of requirements determined by the government. If the requirements limit the intakes of clients but the resources are available for other low income people, then these agencies utilize resources efficiently. The more the eligible people receive assistance, the better distribution of benefits is performed; the more needy people they help, the higher feeling of accomplishment that rewards them. If the standard requirements deterred workers from helping the needy , then workers would find ways to work around the issues in order to help them get the assistance they deserve. For example,

workers allow clients to receive services and assistance first and they will do the intake and the follow up later; workers distribute foods to non-resident homeless, letting them enjoy the meals despite the eligibility requirement for food pantry, because they determine that foods are available and perishable. Their humane intuition factor is in use here; workers lobby legislators and advocate for changes in federal income guidelines that are unrealistic to assess a household income in Massachusetts/New England; workers become advocates for clients who need help in applying for or appealing to public benefits such as Food Stamps, Social Security Disability Income (SSDI) and SSI; workers become mediators between landlords and clients who need help with eviction notice.

The quest for efficiency in service and cost is a goal for most types of organizations. Agency work is organized with divisions and specializations to ensure that service is delivered efficiently. Antipoverty community agencies are encouraged by the War on Poverty and OBRA as efficient mechanisms to deliver welfare services. They are able to reach out to the community and to increase community participation simultaneously. The advantages are; first workers in both Tri-CAP and CEOC embrace a multi-tasking strategy through teamwork as a way to perform their daily jobs efficiently. Workers accept the fact that resource scarcity is always an issue that limits agencies from hiring more workers. Thus one way or another, workers still need to finish their assigned jobs. Building team-

work is an efficient way to complete their jobs. Second, both agencies have volunteers and seasonal workers that help agencies support their daily work. This strategy is cost-efficient, as it does not require agencies to pay long-term benefits to seasonal workers or to reward volunteers.

The emphasis on efficiency in non-profit community organizations as people processing organizations allows these agencies to behave differently from the public welfare agencies. Efficiency is a catch phrase with many ways of expressing and organizing it. Efficiency is a category that remains consistent in any form of organizational studies because human and non-human resources are central for accomplishing goals and objectives. Therefore policy development can benefit from the study of non-profit community agencies, particularly when these organizations offer services and cost advantages to their clients and society.

STREET-LEVEL BUREAUCRACY: AN EVOLUTION OF LIPSKY THEORY

The use of the term "bureaucrat" has been applied in many contexts. Interestingly one may argue that when Lipsky (1969, 1971, 1976, 1980) first labelled frontline workers as "street-level bureaucrats," he was referring to the public officials that exercised personal discretion in dealing with clients directly in daily work. Lipsky viewed workers at the bottom as bureaucrats because they were public officials too, like their top-level bureaucratic colleagues. Furthermore

this does not conclude that "bureaucrat" necessarily carries any negative connotation such as delay or rigidity.

In fact, the Weberian model of bureaucracy is rational, centralized and objectively determinant. Thus this Weberian model promotes the essence of rationality in approaching human decisions, goals, accomplishments, tasks applications, environmental selection based on scarce resources and the ability to resolve issues embedded in organizations. Parsons (1974) observed that Weber has formulated his organizational theory in the systematic approach that is concentrated overwhelmingly on normative patterns of rationality. In this way an organization's efficiency can be achieved through discipline and reliability in exercising control over human beings (Parsons, 1974). This hierarchical model enhances an organization's efficiency through a systematic division of labour, discipline and control, organized rules and regulations, competent administrative conditions, qualified candidates, and a standard system of rewards. Therefore, this bureaucratic administration in an organization results in the essential qualities of efficiency, formality, rationality, calculability, knowledge ability and technical competency.

Daft and Steers (1986) argued that while this bureaucratic model might be needed in large-sized organizations where a central system is able to bring together a large number of people and tasks to achieve organizational goals, for smaller organizations, adversarial bureaucratic

procedures are unnecessary because tasks can be supervised or accomplished by a single or a few individuals. In fact, bureaucratic procedures such as standardizing, regulating, monitoring, and controlling may reduce flexibility and slow productivity and efficiency for small size organizations. Therefore, the question of whether or not bureaucracy promotes high performance is a matter of size and fit (Daft & Steer, 1986). Having bureaucratic procedures may be vital for organizations as they expand in size, employees, tasks, and networks, but too much of bureaucracy may disrupt simple functions in a small-scaled organization.

Furthermore, Hummel (1977) argued that Weber's intention to create a bureaucratic system through division of labour, specialization, training and hierarchy of duties is to maintain control and to produce stability and productivity. However Weber's bureaucracy has unintentional effects: hierarchical authority leads to a powerful centralized system that distorts training, specialization, division of labour and rewards. One extreme result may be to reduce stability and productivity. Therefore bureaucracy is open to many interpretations and it is up to individuals to balance fit with function.

The use of scientific management in a rational top-down bureaucratic model has been criticized by bottom-up scholars like Lipsky (1969, 1971, 1976, 1980), Lipsky and Weatherly (1977), Elmore (1978, 1979), Weatherly (1980), Hjern (1982), Hjern and Porter (1981). Lipsky's (1969,

1971, 1976, 1980) street level bureaucracy theory was revolutionary in late 1960s because it introduced the idea of looking at the implementation processes from the bottom-up in contrast to the rational top-down approach. Lipsky was concerned with the low level public employees who utilized the discretionary nature of their jobs to wield substantial power and in effect create policy for their agency. This term has been defined by Smith and Lipsky (1993) to designate contractual regimes, where non-profit organizations that receive grants from the government will have workers that behave similarly to public officials. A simple reason is that the non-profit organizations have to comply with government's rules and standards that shape work ethics among workers. Thus work ethic is assumed to be similar for both the public officials and the street level bureaucrats, who may also ration and routine work that can result in bias, inequality and discrimination.

Non-profit workers view clients as human beings who deserve to be treated with respect instead of "products." Not only clients do not want to be treated harshly, but workers emphasize that being mean to clients would not make their work easier. Moreover, top administrators train their staffs to respect clients regardless of the clients' situations. They may come to community agencies with urgent issues such as substance abuse, domestic violence, homelessness and eviction, and frontline workers have a client-oriented attitude in dealing with them. As a result this gives a new perspective on the frontline workers

in non-profit organizations who have been labelled "new street level bureaucrats." The following section suggests that this new generation of workers may be better and more humane in delivering services to needy people.

PROBLEMS FACED BY NEW STREET LEVEL-BUREAUCRATS

As discussed above, workers in both agencies experience similar work environments. Rigidity is a problem that exists in many organizations due to limited resources, regardless of their status as profit, non-profit, private or public entities. Ways to cope with work environments presented in Tri-CAP and CEOC are different from Smith's and Lipsky's (1993) ration and routine because the former allows many more advantages for clients. **First,** ration and routine lead to work simplification that results in cutting access to welfare benefits, withholding information and delaying services to clients. On the other hand, ways to cope with work environments in Tri-CAP and CEOC allow better access to service provisions, benefits, and information on other welfare services through referrals.

Second, ration and routine lead workers to apply personal discretion in modifying rules and guidelines based on personal interest as an easy way to lessen their daily jobs. On the other hand, workers in Tri-CAP and CEOC exercise their personal discretion on a case-by-case basis especially when dealing with emergency cases, and workers acknowledge the federal rules and guidelines that are important to be followed simultaneously.

Third, ration and routine alter an agency's goal when access to services and benefits is denied to clients, but teamwork and overtime allow workers to promote an agency's goal by ensuring that access to services and benefits eligibility are delivered to needy people efficiently.

Fourth, ration and routine result in bias, inequality and discrimination of services when personal discretion leads to favouritism and privilege. On the other hand, teamwork, overtime, and work simplification on case-by-case basis allow workers to deliver services and care to needy clients respectfully.

Ackerman (1996) argued that since non-profit organizations are motivated by ideas rather than profit, they offer altruistic services in terms of quality and cost advantages. This research findings support Ackerman's (1996) in that workers in both community agencies try to place the interests of the needy community over agency or individual interests. Considering the limited resources underpinning welfare programs, the goal to help the needy is a driving force that can make non-profit antipoverty agencies a vital part of the community. Likewise, altruism can become fundamental goal for antipoverty community agencies that could result in variations in workers' behaviour. Table 2 of behaviour variations gives a perspective for future research, considering that when personal discretion is applied at the bottom, policy outcomes may be shaped differently by the "new street level bureaucrats."

MOVING BEYOND THE "NEW STREET LEVEL BUREAUCRACY"

The adaptations for coping with rigid work environments that have been discussed are to be viewed as possibilities that one should consider. A few reasons to believe that local non-profit antipoverty agencies are capable of providing services better than the old "new street level bureaucrats" include supportive arguments from scholars. **First,** community agencies that came from the 1960s and 1970s mostly evolved from social movements. The researcher believes that the roots of social movements in both Tri-CAP and CEOC foreshadowed how these agencies would deliver their services to clients; they act locally to rejuvenate society as a whole. MacCarthy and Zald (1977) emphasized the origin of local community organizations that progress from social movements into complex organizations. They argued that a social movement is based on a set of beliefs and opinions that reflect preferences for changing social structure through a redistribution of resources. As a result, a social movement is presumed to be an instrument of metamorphosis that alters societal structure and reimburses society. Freeman (1983) supported this argument, and he provided an example of the national welfare rights organizations in the 1960s and 1970s that began as antipoverty agencies and were formed to help poor people. Many also originated from the community organizations established by liberal church groups and urban civil rights activists, and these groups were scattered throughout the states.

Second, scholars like Rich (1980) and Schuler (1996) argued that community organizations can become agents of change to revitalize society. Community organizations and their networks are the nerve system of human society, and a call for community involvement is vital in addressing concurrent social problems such as poverty, crime, unemployment, drug use, and for meeting basic needs. These problems are manifested within the community and are best resolved by the communities. A strong community commitment would be able to redirect the government resources to facilitate meeting the community needs.

Third, the "not-for-profit" nature and the absence of ownership argued by Weisbrod (1989), DiMaggio and Anheire (1990), Howlett and Ramesh (1995), and Ackerman (1996) allowed the non-profit organizations to offer low cost services to people. Inexpensive services are the basis for quality service delivery and cost efficiency. This is supported by workers in Tri-CAP and CEOC who are enjoying their jobs without complaining about their agency's reward system, treating clients deservingly, encouraging volunteers and hiring seasonal workers to overcome the busy intake seasons while reducing costs.

Stemming from the substantial contributions made by scholars on non-profit community organizations, it is believed that the present antipoverty community agencies such as Tri-CAP and CEOC are **"client-centred"** organizations that offer fair services to needy people. A "client-centred" service is the next step in understanding

workers in the evolution of antipoverty agencies. Just as new street level bureaucrats in nonprofits were predicted by Smith and Lipsky (1993) to respond similarly to public street level bureaucrats, the "client-centred" service providers have led to more creative ways to solve the problems of rigid work environments, resulting in better services and benefits allocation for clients.

CONCLUSION

The rules and guidelines designed for the welfare programs are avenues to ensure that limited resources are utilized to achieve goals and to alleviate poverty by distributing resources and services to help needy people. Further recognition is that rules and guidelines are ways to assess standard eligibility, to allow consistency in decision making, and to provide solutions for anticipated outcomes. As these formal rules and guidelines are codes of action that are determined by the top level decision makers, they are presumed to be followed. These rules remain as a standard procedure that applies to all, but rules and guidelines can be modified at the bottom based on agency expertise and personal discretionary power.

The actual policy rules and guidelines are modified at the bottom when immediate needs and emergency cases require expertise to decide what is doable and what is the best that fits in such circumstances. In fact, errors in exercising personal discretion such as favouritism can be avoided by providing the right help to the right person at the right

time without overlooking basic rules and guidelines for eligibility. Since problems could be similar but never the same, they cannot be treated alike. As a result, rules and guidelines remain as basic references that should be adjusted on a case-by-case basis to provide the right help and services to the right person at the right time. The application of this action would ensure that the distribution of resources can be delivered efficiently.

The mix of precise rules and guidelines, and personal discretionary power is essential to provide efficient decision making and to deliver efficient services. As rules and guidelines for poverty programs may take years of lobbying and stages of procedures to be reviewed by the Congress, personal discretionary power based on agency expertise is necessary. In addition, an agency's goal to distribute resources and to help needy people is achievable when personal discretionary power is applied accordingly. In fact, since poverty is impossible to be eliminated, the need to continuously find ways to redistribute money and resources is essential. Therefore, community action agencies will continue to exist and evolve.

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ISO 9001:2008 Implementation In a SME: A Case Study

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ABSTRACT

ISO 9001:2008 Quality Management Systems (QMS) standard was published as a standard that contains the requirements which an organization needs to fulfil to achieve customer satisfaction through consistent products and services that meet the customers' requirements. The standard accreditation allows the companies regardless of its size, type and product or service to compete in the business. However, most of the standard's implementation models developed focused on large organizations structure. Thus, there is a need for a suitable model to guide small and medium enterprises (SMEs) in implementing ISO 9001:2008. By referring to available published models and framework, eliminating some unnecessary steps and simplifying available implementation processes; this paper provides a simple yet practical model for SMEs to start their quest towards accreditation. The model covers all eight QMS principle in ISO 9001:2008. The model was then implemented as a case study research in one SMEs' company in Malaysia. The result shows that the model is practical as it helps the company to achieve ISO 9001:2008 accreditation.

Keywords: Case Study; ISO 9001:2008, implementation model, Malaysia, SME

INTRODUCTION

Putting quality first is fundamental to the long-term survival of every company. Therefore, quality has emerged as a strategic competitive tool for organizational success (Magd & Curry, 2003). However, many companies have failed in competitive market because they have neglected quality management system (QMS) in favour of fast delivering of product. Many failed to understand that inspection and examinations do not create quality, but quality is built during the product development process by having a good QMS. Companies with effective QMS will not only have a structured product development process but also production system and marketing process. Based on the situation, various standards were introduced as a benchmark of good QMS. The standards act as objective

evidence to customers to show how well the company performs in producing and maintaining high quality products.

One of the standards for QMS is ISO 9001:2008 (referred as ISO 9001 throughout this paper). It is one of the ISO 9000 series of standards that formalizes systems to evaluate the ability of an organization to consistently design, produce and deliver quality products and services (Magd and Curry, 2003). This standard is the revised version of ISO 9001:2000 produced by the International Organization for Standardization (ISO). The focus of this new version is on its application for all organizations regardless of the size.

The standard consists of eight QMS principles which reflect the management's best practice and is designed to enable a continual improvement of the business, its overall efficiency and its capability in responding to customers' needs and expectations. The eight principles are:

1. Customer focus

2. Leadership

3. Involvements of people

4. Process approach

5. System approach to management

6. Continual improvement

7. Factual approaches to decision making

8. Mutually beneficial supplier relationships

The first QMS principle emphasis the importance of organizations to understand current and future customer needs so that these organizations can meet the

requirements in their operation and also strive to exceed the customer expectations. The understanding should be portrayed in the company's policy and objectives. Then, the leadership as the second QMS principle highlights the role of leaders in establishing unity of purpose and direction of the organization. Effective QMS only happens with good leadership especially from the top management in the company because top management has the authority to ensure that all ISO 9001's requirements are implemented.

The standard also regards the involvements of people at all levels as the essence of an organization. This third principle emphasized the employees' full involvements in implementing ISO 9001 and their contribution to the organization's benefits. The fourth QMS principle is about a structured process approach in management. This is because a desired result is effectively achieved when operating and production activities and related resources are properly managed. The fifth principle is system approach to management in QMS. In order to be accredited with ISO 9001, the process of identifying, understanding and managing system needs to be structurally implemented so that it helps the organization in achieving its policies and objectives.

The sixth principle in QMS is the continual improvement of the organization's overall performance. Every company accredited with the ISO certification will undergo yearly audit to check the management system; therefore, it is important for the company to make

continuous improvement as its permanent objective. The seventh principle is about the factual approaches to decision making. This is important because effective and reliable decisions can only be achieved based on logical and intuitive analysis of data and information gathered in the organization. Then, the final principle emphasized in ISO 9001 is the mutual beneficial supplier relationship. This principle is required in QMS because the organization and its suppliers are interdependent, thus both should enhance their ability to create high quality product and the lowest price possible.

There are about 158 countries adopting the standard, thus it allows companies around the world to work together in manufacturing good quality product without worrying the standard of management system at their acquaintance even though the other companies are situated in other regions or countries (International Standard Organization, 2006). The collaborations are usually conducted to expand businesses and minimize transportation cost especially for products. Therefore, in order to choose reliable acquaintance, companies can check whether other companies are accredited with ISO 9001 or not. As mentioned, the standard also enables small and medium enterprises (SMEs) to compete with bigger organizations in the business by having recognition for their QMS.

However, most ISO 9001 implementation models developed in books or journals addressed large company culture and work structure. ISO 9001 researchers

and consultants usually provide a rigid and lengthy generic documentation programme or computerized system which is suitable with various departments and job scopes in large companies. Here, problems that may occur are, guidelines suggested by the consultants are too complicated, as most of them are based solely on their experiences in big companies, giving little idea to SMEs how the implementation really work.

The other critical issue that will have to be considered when discussing the ISO 9001 implementation is the fact that ISO 9001 consists of sets of requirements, thus there are different approaches that could be used to meet the requirements of each element in the standard. SMEs characteristics are different in comparison with large organizations structure, systems, procedures, culture, behaviours, human resources, market and customers (Abdul-Samat & Kamaruddin, 2006; Yusof & Aspinwall, 2000a, 2000b, 2001). However, it does not mean that SMEs need to do major changes in their management system to comply with the requirements. The SMEs only need to adapt their system according to ISO 9001 requirements. In doing so, they need a simple and concise implementation model as a guideline to fulfil the requirements and get accredited.

In some cases, SMEs assign the whole responsibilities of their ISO 9001 implementation process to consultants. This happens because they do not understand their own capabilities or advantages and they do not have simple implementation model to refer to. The situation becomes

a great squander to SMEs in ISO 9001 implementation. Therefore, this paper is written with an aim to develop a simple and concise model that will help SMEs to implement ISO 9001. The focus is to tailor the SME's culture and structure to satisfy the ISO 9001:2008 requirements. The model is developed to assist SMEs to be accredited with the standard. The standard is a proof that a company has a good QMS and is capable in producing high quality products or services. This will allow SMEs to compete with large companies in their business area.

SMES AND ISO 9001:2008

There is no specific definition for small and medium enterprise (SME) yet most countries segregate the companies not based on their profit margins but based on the number of workers employed. For the U.S. Department of Commerce, SMEs are companies with 500 and below workers (Callaghan & Schnoll, 1997). For Aldowaisan and Youssef (2004), companies with less than 100 workers are considered as small companies. The National SME Development Council in Malaysia has classified SME into three distinctive groups as in Table 1. The classification is based on the organization's annual turnover and/or number of employee, whichever is lower (SME Bank, 2009).

The primary difference between large and small companies culture is its management's role and involvement (Berg & Harral, 1998). Typically, the characteristics of the top management of an SME are:

1. Has greater interest and control of the firm through an ownership position.

2. More involved with daily operations in all areas.

3. Knows all employees and their strengths and weaknesses.

4. Understands, and can often perform, all activities or processes.

TABLE 1
SME Table 1: SME businesses classification in Malaysia based on annual turnover (Sources: http://www.smebank.com.my)

Size	Manufacturing	Services
Medium	More than RM 10 million – RM 25 million, OR Between 51 – 150 full-time employees	More than RM 1 million – RM 5 million, OR Between 20 - 50 full-time employees
Small	RM250,000 – RM 10 million, OR Between 5 - 50 full-time employees	RM200,000 – RM 1 million, OR Between 5 – 19 full-time employees
Micro	Less than RM 200,000, OR Less than 5 full-time employees Minimum RM 20,000 loan Funded by Special Programmes Deployed with partners/Agencies	Less than RM 250,000, OR Less than 5 full-time employees Minimum RM 20,000 loan Funded by Special Programmes Deployed with partners/Agencies

5. Knows the customer's representatives and understands customer needs and quirks.

6. Knowledgeable about the relative strengths and weaknesses of the firm's products/services as well as its competitors.

From these points, it can be summarized that the management in SMEs are experts of their system and have the authority over all operation unlike the management in large organizations that only know their own scope of work. Aldowaisan and Youssef (2004) stated some fundamental ways that the SMEs differ from large organizations. The first difference is the scope of SMEs is usually limited in terms of products/services, geographic location, market/customer base and technology used in operation. This is because SMEs have inadequate resources like money and employees. However, every employee in SMEs especially at the supervisor or managerial level is considered valuable. Their departure can cause disruption in operation for the reason of lack of employee to replace them.

Aldowaisan and Youssef (2004) also mentioned that there are typically no employees or departments with the exclusive responsibilities in SMEs. Every employee usually knows the whole SMEs operations and has no specific job description. It is different with large organizations which have various departments and every employee is assigned for specific tasks. Nevertheless, research done by Poksinska *et al.* (2006) showed that SMEs share the same benefits as the large companies do in terms of the internal benefits: improved quality and management control, increased quality awareness, reduced poor quality costs and for external benefits: improved company's' image and ISO 9001 standards accreditation as a marketing tool.

A survey conducted by Idris *et al.* (1996) showed the reasons which initiate the implementation of the ISO standards in Malaysian SMEs. The most important reason was a need to improve their business performance so they can be more competitive. Another reason was because ISO 9001 is a part of total quality management (TQM) which is widely implemented in large and successful companies. SMEs in Malaysia also implement ISO 9001 as demanded by the customers who want an objective proof that the company is producing good quality product or services in effective QMS. Aside from that, the implementation is conducted because ISO 9001 is accepted as good practice in the industry and their competitors are already certified.

Bayati and Taghavi (2007), Zaramdini (2007), and Singh and Mansour-Nahra (2006) conducted researches about the ISO 9000 certification in Tehran, Australia and United Arab Emirates respectively. These survey based-researches focused on the SME works and efforts to implement the ISO standards and the benefits from their work. The researches proved that the ISO accreditation can improve business and quality, reduce cost, and provide proper use of resources, resulting in a complete documentation and standardization of

procedures, while increasing customers' satisfaction to the SMEs at the same time.

Concerning the ISO 9001 implementation, some researchers focus on the methods used during the process. In the case study conducted by Lo and Humphreys (2000) in ten companies in Hong Kong, project management techniques was applied to develop a generic project network and resources loading profile for ISO 9001 implementation. Their objective was to ensure that the SMEs can use a benchmarking approach to efficiently plan the implementation of the ISO 9001. Two project management tools used were network analysis and resource analysis.

Tsim *et al.* (2002) used management activity as the key element in a model to assist certified companies to link their concerned areas with the ISO 9001 requirements. Emphasizing on top management responsibility towards the implementation, the information was used in the analysis to determine the areas for continual improvement. The importance of management contribution and measures of business and operating performance resulting from ISO 9001 standard implementation were also emphasized in Naveh and Marcus (2005).

DEVELOPMENT OF ISO 9001:2008 MODEL FOR SMES

Tailoring SMEs Characteristic for ISO 9001:2008 Implementation

Yusof and Aspinwall (2000a, 2000b, 2001) stated that SMEs face difficulties in implementing the ISO 9001 as they did not have sufficient knowledge about it. The SMEs also lack of strategic thinking and employees to conduct the process. Aside from that, they have inappropriate motivation because the high costs for the implementation and accreditation processes. Berg and Harral (1998) stated that SMEs usually adopt typical, large organization models for ISO 9001. They tend to buy the ready-made documentation programme because of the limited number of management personnel to handle all management tasks and at the same time plan for the implementation and accreditation.

The SMEs will purchase a generic documentation programme that only requires them to simply inserting the organization's name in ready-made forms. However, almost all purchased documentation programmes were based on large companies' models. The documentation covers almost all departments available in large organizations. Thus, these programmes can create more problems than what they can solve for small organizations because of a large number of forms and documents need to be attended to. SMEs usually do not have specific departments like purchasing, quality assurance, research and development and also safety departments. Therefore in the end, SMEs will be entangled in a web of useless documentation which is not applied to them. Some SMEs give up their implementation process when this problem occurs, making them wasting their money and effort.

Another problem is SMEs fails to determine the type of management

documents that are required by ISO 9001. Usually, SMEs already have most of the required documentation, but because the lack of understanding of the standard, their documents are not linked to ISO 9001. Actually SMEs only need to be standardized without having to totally alter their system. SMEs can actually create a customized documentation strategy that will provide them with the maximum benefit for a minimum outlay of resources. They will need documentation only to the extent that its absence adversely affects product's quality, both current and overtime. The documents bridge the gap between an activity's written requirements and the task performed. This way, activities are ensured to be conducted according to QMS in ISO 9001.

Callaghan and Schnoll (1997) suggested that with an effective use of resources and the help of experts, small companies can overcome the obstacle to obtain the ISO 9001 registration. By pooling together resources, supply chain management is better controlled and managed while providing a one-stop solution similar to larger organizations' (Sitathan, 2003). External costs associated with the implementation and registration processes are directly proportional to the company's size. Thus, the smaller the company is, the smaller the fees associated to it. It was suggested that problems like limited resources of capable employee and overlapping of responsibilities in small companies are solved by assigning external consultants towards ISO 9001 accreditation.

However, it is recommended that they do not solely rely on expert guidance like consultants especially one who has little experience with SMEs. As SMEs depend on relatively high levels of employee empowerment, they have the ability to control their own journey towards ISO 9001 accreditations. It is vital for the SMEs to recognize this in their documentation and quality control plans to avoid further problem in the future with the ISO 9001 requirements. ISO 9001 requires a simple and concise model to give accurate information for the implementation process, trained workers to implement it, and cooperation from top to bottom management to ensure its success. All these elements should be integrated together to gain accreditations.

Model Development

To accomplish the aim in producing a model for implementation in compliance with the ISO 9001, available models in literatures are reviewed. Deros *et al.* (2006) defined a model as a set of simplified theoretical principles and practical guidelines to carry out benchmarking implementation and adoption, which can enhance the chance of success that are easy to understand, efficient and can be implemented at reasonable costs and time. According to Yusof and Aspinwall (2000a), a good model that suits the SMEs characteristics are:

- Systematic and easily understood;
- Simple in structure;
- Have clear links between the elements and steps outlined;
- General enough to suit different contexts;

- Represent a road map and a planning tools for implementation;

- Answers "how to?" and not "what is?"; and

- Implementable at reasonable cost and time.

A good model can link up the benchmarking concept and practical application because it guides the organization in adopting and implementing the activities in a more systematic, comprehensive, controlled and timely manner (Deros *et.al*, 2006). There are various implementation model and steps developed in the literatures. These divergences somehow bring confusion to some first timer in the implementation task especially for the SMEs' representative. According to Voehl *et al.* (1994) there are only two steps necessary for achieving ISO 9001 certification; they are (1) design and implementation of a quality system that meets the requirements of the standard, and (2) a successful assessment completed by a suitable assessor body.

One example of complex implementation steps was created by Lo and Humphreys (2000). They developed a network design which consists of 27 activities starting from appointing the management representative and setting up the steering committee, up to the certification process. The activities are listed in Table 2. Another example was by Johannsen (1996) who detailed out seven stages in the preparation of QMS for a company. In the surveys done by Fuentes *et al.* (2000), 18 implementation activities were suggested to companies in pursuing ISO 9001 certification.

Yaacov (1995) provided 12 major steps to achieve certification as listed in Table 2. The author also built up an ISO 9001 project activity chart that shows the model towards accreditations as shown in Fig.1. The model has ten basic steps to implement ISO standard, starting from the act of gaining information up to registration of the standard. The model was built for the SMEs application, with a suggested third party ISO assessment.

The other model for ISO 9001 implementation was by Motwani *et al.* (1994). The implementation steps were prepared as shown in Fig.2. This model was based on a case study conducted to illustrate how a big US manufacturing organization achieved their ISO 9001 certification. Starting in January 1991, the company formed a task team at the managerial level to study the need to pursue ISO 9001 registration and finally after two years, in December 1992, the company was registered and proudly received their certificate. Since then, the company has maintained its registration, continues the internal audits and sets continuous improvement goals. As illustrated in Fig.2, there were eight major steps towards the ISO accreditation in the company.

Based on the available steps and models reviewed, a new model towards ISO 9001 accreditation was built as guidance for the SMEs to implement the ISO 9001. Focusing on a simple and practical model, the steps were developed to enable the SMEs to comply with the eight QMS elements and ISO 9001 requirements. Only the important steps for ISO 9001 accreditation

were selected from the literatures while redundant and repetitive steps were merged or eliminated. Any elaborate and complex steps were also avoided. The model is illustrated in Fig.3.

The model consists of six steps. This model focuses on the full understanding of ISO standards before choosing a suitable standard for the company. The first step is to gather as much data as possible.

TABLE 2
List of authors and suggested steps for ISO 9001 accreditation

Authors	No. of Steps	Steps
Voehl *et al.* (1994)	2	Design and implementation of a quality system that meets the requirements of the standard
		Successful assessment completed by a suitable assessor body
Lo & Humphreys (2000)	27	Appoint management representative (MR) and set up steering team
		Assessment
		Set up work groups
		Documentation Training 1
		Documentation Training 2
		Draft the quality assurance manual (QAM)
		Refine the QAM
		Approve the QAM
		Draft the company operations procedures (COPs)
		Refine the COPs
		Approve the COPs
		Draft the work instruction (WI)
		Refine the WIs
		Approve the WIs
		Awareness training
		Quality training
		ISO requirements training
		Internal audit training
		Implementation training
		Implement the new system
		Internal audit
		Update the procedures
		Restrain
		Implement the changes
		QAM review by certified body
		Formal audit by certified body
		Complete corrective action
		Certified by certified body
Johannsen (1996)	7	Defining scope –selection of services and/or products
		Definition of policy, goals and responsibilities as regards of quality
		Analysis of processes
		Choosing a focus
		Selection of standards and requirements
		Design and quality manual
		Drawing up procedures and instructions

Table 2 (*continued*)

Fuentes *et al*. (2000)	18	Creation of improvement teams
		Creation of evaluation and the recognition systems
		Creation of participatory systems
		Redesign and improvement of the existent documentation system
		Documentation of other processes not included in the ISO standard
		Benchmarking activities
		Improvement of the existing indicator's system
		Design of new control indicator's systems
		Analysis and improvement of existing processes
		Development of a continuous training plan for all employees
		Customer satisfaction analysis
		Employee satisfaction analysis
		Customer participation in product design
		Customer participation in the processes of production/delivery of the product
		Documentation and publication (internally) of goal achieved
		Transfer of more autonomy of employees (task control/task decisions)
		Co-operation with suppliers
		Monitoring reference models of a broader scope than ISO (e.g. European Quality Prize or Malcolm Baldrige National Quality Award)
Yaacov (1995)	12	Management commitment and ISO steering committee
		Assess current system and prepare implementation plan
		Train management, internal auditors, and documentation
		Begin new processes, documentation, and internal auditing
		Select independent third-party registrar
		Continue training and educate all employees on ISO 9000
		Continue process, documentation, and internal auditing
		Pre-assessment and corrective action
		ISO registration assessment
		Corrective actions to resolve nonconformities
		Registration certification
		Periodic surveillance audits
Motwani *et al*. (1994)	8	Awareness stage
		Management decision and commitment
		Initial preparation
		Preparation of quality manual
		Pre-audit assessment
		Initial audit
		Follow-up audit and final assessment
		Registration

Then the fundamental step is to build up a team and educate the employees for the implementation processes. The next step is to document the company's quality management system, implement it, and validate the system by conducting internal audits. After that, the company needs to carry out corrective and preventive action system as conducted in step five of this model. Any incompliance of the QMS should be revised from step three when documentation system is build. The final step is to prepare the company for ISO 9001 assessments before being audited and
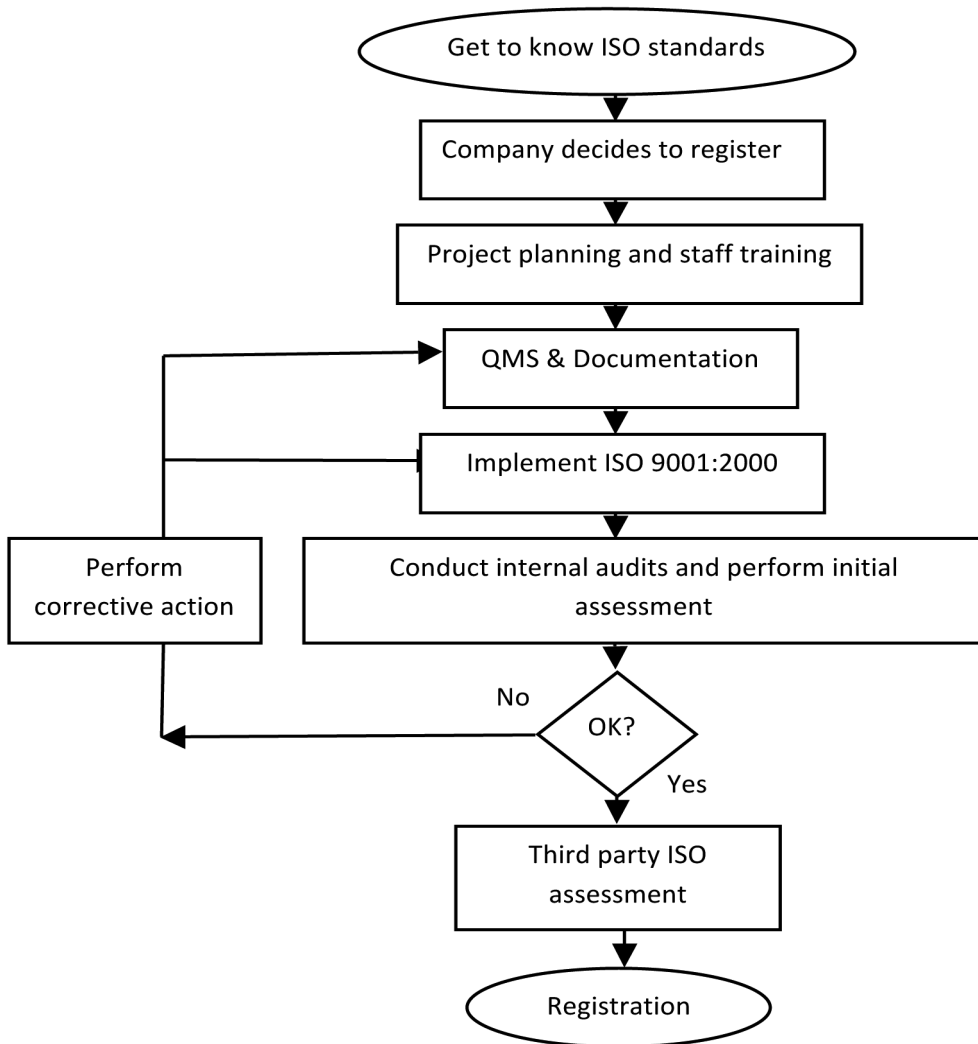
Fig.1: ISO 9001:2000 project activity chart (Yaacov, 1995)

then finally receiving the accreditation. In order to show the effectiveness of the developed model, it is adopted in one of a pharmaceutical company as a case study. Further discussions on the model and the steps involved are discussed in the next section.

ISO 9001:2008 IMPLEMENTATION PROCESS AT THE PHARMACUETICAL PACKAGING COMPANY

Overview of the Company

A case study was conducted in a pharmaceutical packaging manufacturer in east Malaysia. Incorporated in July 2005,

January 1991　　　June 1991　　　　　　　　　　　　　January 1992

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┌──────────┐     ┌──────────────┐     ┌──────────┐     ┌──────────────┐
│          │     │ Management   │     │          │     │ Preparation  │
│ Awareness│ ──▶ │ decision and │ ──▶ │ Initial  │ ──▶ │ of quality   │
│ stage    │     │ commitment   │     │preparation│    │ manual       │
│          │     │              │     │          │     │              │
└──────────┘     └──────────────┘     └──────────┘     └──────────────┘
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December 1992　　　　　　　　　　November 1992　　October 1992

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┌──────────┐     ┌──────────────┐     ┌──────────┐     ┌──────────────┐
│          │     │ Follow-up    │     │          │     │              │
│Registration│◀─ │ audit and    │ ◀── │ Initial  │ ◀── │ Pre-audit    │
│          │     │ final        │     │ audit    │     │ assessment   │
│          │     │ assessment   │     │          │     │              │
└──────────┘     └──────────────┘     └──────────┘     └──────────────┘
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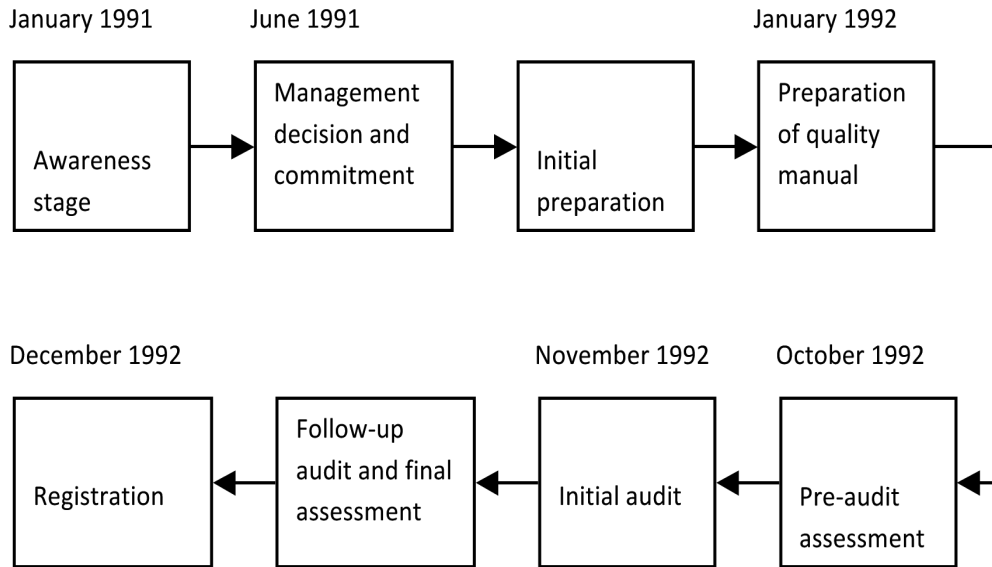
Fig.2: Model to ISO 9000 registration – by the case study corporation (Motwani *et al*., 1994)

the company core business activity is manufacturing of pharmaceuticals plastic products like bottle, canister insert, bottle caps, and others. The main processes involved are injection moulding, blow moulding and auto-capping process. It is a small enterprise with 36 full time employees which fits the criteria of the SMEs listed in Table 1. As the number of employee is small, there are typically no specific employees or departments with an exclusive responsibility. Nevertheless, each employee understands the whole operation in the SME.

The company is responsible to supply the pharmaceuticals products to one of the ISO 9001:2008 accredited companies in Malaysia. This company has already undergone a second-party assessment conducted by their customer to ensure their management system is complied with the ISO 9001 requirements. The second-party assessment is when the customer performs its own assessment of the supplier's quality system using the ISO 9001 criteria as a guideline and judgement. Realising the importance of the ISO 9001 accreditation and to ensure their collaboration goes well, the management decides to implement the ISO 9001 by adopting the model developed in this research.

The Implementation Process

In order to validate the effectiveness and practicality of the model developed, the model was implemented in the Production Department of the company under study.

Step 1: Get To Know ISO 9001:2008

As shown in Fig.3, the first task in implementing the ISO 9001 is to study and
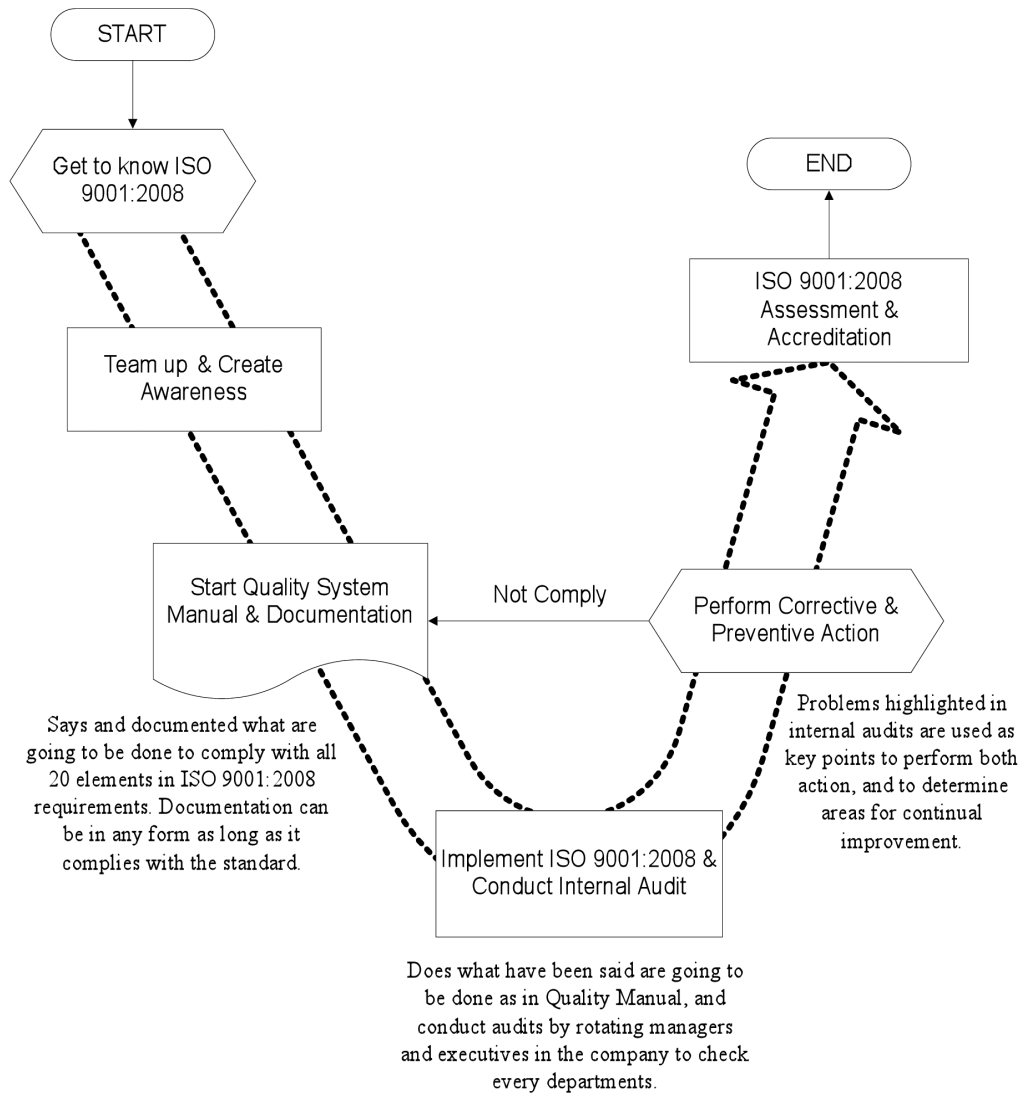
Fig.3: A model used for implementing ISO 9001:2008 in SMEs

understand the standard. The first step in the model is developed to accomplish the 'leadership' requirement in the ISO 9001 by focusing on commitment of the top management. The first reason why they have to commit is the need for resources like money and employee time that can only be authorized by the top management. Another reason is the leaders have to set a positive example for the employees to follow. Thus, the top management in the company has demonstrated its commitment by being actively and visibly involved in the preparation process and being supportive for the company's quality philosophy, quality management principles, continual improvement, and the process approach to the QMS.

In the first step, the company's representatives which consist of one Production Manager and two Supervisors gathered information related to the ISO 9001 requirements from the internet, books and also from the International Standard Organization body available in Malaysia. They also enquired some information from consultants and registrars. The information was then organized and studied. This is to ensure they understand all requirements in the standard and the main steps in implementing ISO 9001. During this step, it is important to seek information from reliable sources like the International Standard Organization webpage and a certified company. Consequently, they know that the standard has 20 QMS elements requirements as stated in Clause 4.1 till 4.20 and as listed in Table 3.

TABLE 3
List of 20 elements of Quality Management System

ISO 9001 Clause	Elements of Quality Management System
4.1	Management Responsibility
4.2	Quality System
4.3	Contract Review
4.4	Design Control
4.5	Document & Data Control
4.6	Purchasing
4.7	Control of Customer-supplied product
4.8	Product Identification & Traceability
4.9	Process Control
4.10	Inspection & Testing
4.11	Inspection, Measuring & Test Equipment
4.12	Inspection & Test Status

Table 3 (*continued*)

4.13	Control of Nonconforming Product
4.14	Corrective action & Preventive Action
4.15	Handling, Storage, Packing & Delivery
4.16	Control of Quality Records
4.17	Internal Audits
4.18	Training
4.19	After-Sales Servicing
4.20	Statistical Techniques

Step 2: Team Up & Create Awareness

The second step is to form an ISO 9001 implementation team. As the company has very limited manpower, all representatives in the Production Department like production managers, supervisors and line leaders were assigned in the team. The team is named as ISO Steering Team. It also includes human resources manager as a representative from the company's top management. The manager acts as the final decision maker in the team. Thus the implementation process is in line with the company's policy and objectives. This gesture satisfies the QMS principle of 'involvements of people' *which includes employees, employers and also customers*. The team has a few important tasks. First, they develop an estimation of the effort in terms of costs for the external services and time for the internal tasks. At this point the estimation is not very precise due to many unknowns, but a range is developed within the actual costs so that the top management can understand the total cost to make a decision either to proceed with the implementation process or not.

Afterwards, the team sets an initial timetable for the project. During the implementation process, six months is allocated for the documentation processes and another two months for the auditing by the ISO 9001's consultant. Research conducted by Fuentes *et al.* (2000) stated that companies usually need six months for documentation and one month for auditing. The ISO Steering Team prepared an ISO 9001 plan covering the critical activities involved in planning, organizing, implementing, and controlling the project. The ISO 9001 standard requires controlled conditions for materials, equipments, processes, procedures, personnel, supplies, utilities and environments to produce quality products. The team spends two months on the processes.

The team's responsibilities also include:

1. Monitoring progress on the implementation plan, and making adjustment when needed,

2. Reviewing and approving policy documents and SOPs,

3. Approving proposed solutions to reduce gap in compliance,

4. Resolving operational disputes among departments and function especially during internal audit processes,

5. Reviewing and approving corrective and preventive actions,

6. Reviewing registrar proposals and selecting suitable registrar

Next, to commensurate with the decision to proceed, the ISO Steering Team begins publishing the information on ISO 9001 to all operators to create awareness. The team communicates with the operators on why their input and support is required in an attempt to enhance the quality and the ISO 9001 awareness. Aside from that, the company's Quality Policy and Quality Objectives are printed out and displayed together with some information regarding the ISO 9001 at the production floor as reminder that the company is aiming for accreditation. Since the budg*et al*located for training purposes is limited, managers and supervisors take advantages of their morning meeting to continuously educate the operators about the ISO 9001 while directing them to follow the company's standard operating procedures (SOPs) when carrying out daily tasks.

Step 3: Start Quality System Manual & Documentation

In the third step, the team starts to construct company's quality manual system and documentation according to the ISO 9001 requirements. The key to approach certification is to understand that it focuses on documentation. The requirements of the QMS principle accomplished in this step are 'customer focus, 'process approach' and also 'factual approaches to decision making'. As the nature of ISO 9001 requirements is general, the ISO Steering team starts to tailor each and every requirement to suit the company's systems. They documented all

the quality system processes related to the 20 elements as previously listed in Table 3. The team established the company's policies in accordance to the ISO 9001 standard. It maintains good controls by ensuring all processes are conducted according to the QMS requirements and, making sure all processes are consistent for all product batches. This is to guarantee that the company produces good quality products.

The ISO 9001 documentation system typically comprises four levels of documents. These are policy, procedure, practices and proof level. As illustrated in Fig.4, the main contribution in QMS is quality manual that contains the company's quality policy, quality objectives and other policies for each clause in ISO 9001. This is followed by procedures explaining what the company has done to meet the policies. Then each standard operating procedure (SOP) is put into practice in the production floor. The third level of the documentation system included work instructions, process specifications, and other clauses requirements like safety elements. The final level to complete the QMS is proof or records like postal order (P.O.), instrument documentation, maintenance record, house-keeping forms, failure analysis record and performance charts. Each and every document used in the Production Floor are compiled and recorded to show that the ISO 9001 requirements are implemented in the company. Table 4 contains the list of records required for the ISO 9001 accreditation.

TABLE 4
List of clauses and the records required for ISO 9001 accreditation

ISO 9001 Clause	Requiring records of:
5.6.1	Management reviews
6.2.2e	Education, training. Skills, and experience
7.1d	Realization processes and product-meeting requirements
7.2.2	Results of product requirements reviews and actions
7.3.2	Product requirement inputs
7.3.4	Results of design and development reviews and actions
7.3.5	Results of design and development verification and actions
7.3.6	Results of design and development validation and actions
7.3.7	Design and development changes
7.3.7	Results of review of changes and actions
7.4.1	Results of supplier evaluations and actions
7.5.2d	Results of process validation (where output cannot be verified)
7.5.3	Product traceability (when required by customer or other)
7.6a	Basis of calibration of monitoring and measuring devices
7.6	Validity of previous measuring result (when equipment is found not to conform)
7.6	Results of calibration and verification of measuring devices
8.2.2	Results of internal audits
7.2.4	Evidence of conformity and product actions
8.3	Nonconforming product and actions
8.5.2e	Results of corrective actions
8.5.3d	Results of preventive actions.

One important point to highlight in this case study is the company has a very limited number of employees in the Production
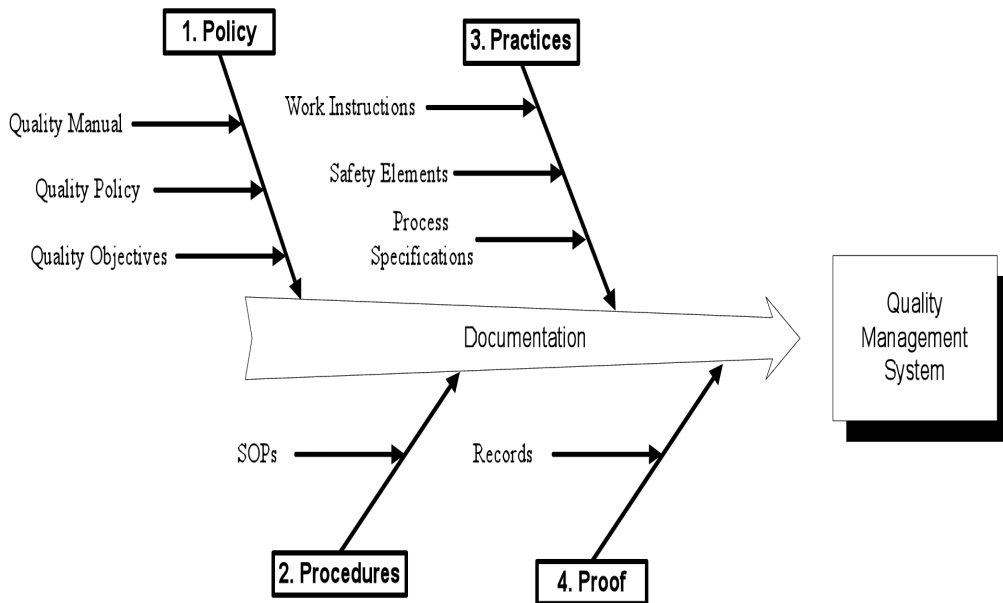
Fig.4: Four levels of documentation system in ISO 9001:2008

Department. Thus, the ISO Steering Team assigned line leaders and operators to build up their own documents and SOPs based on how they conduct their daily work or routines. Managers and supervisors give examples and guidelines of a good SOP and encourage the line leaders to work hand-in-hand with the other operators before submitting it to the ISO team for reviews. By involving them in the process, the ISO Steering Team not only saves time to compile all company's procedures but also instil a sense of responsibility to the operators to work according to procedures they have developed. The team then monitored the implementation progress and made adjustments in their plan as needed. They reviewed and approved policy documents, standard operating procedures, and proposed solutions to gap in compliance between available system in the company and the ISO 9001 requirements. *According to a publication by Fuentes et al. (2000), a typical firm would take about six months for the documentation process. However, the company under study only took three months to complete Step 3 because it is an SME.*

Step 4: Implement ISO 9001:2000 and Conduct Internal Audits

The next step is the company starts to implement the ISO 9001. The main concern here is to implement all the documented procedures in the quality manual developed in the previous step. In doing so, the company collects and keeps all records of their processes and systems and then conducts internal audits. As an example, all trainings in the company are documented in a training log which listed out the type of

training conducted, together with the details about the teaching materials and the level of employees taking part in it. There is also a section to record successful completion of training session of each job function in the production department. The training log is kept on record by the managers in the Production Department.

The ISO Steering Team also starts educating and coaching an audit team on what they should check in the internal audit of the ISO 9001 standard. The audit team consists of two or three higher management from every department in the company. The audits are conducted to check whether the company complies with every clause in the standard as written in their quality manual and documentations. During the audit, critical, new and changes are audited more frequently and more in-depth than others. The internal auditing process gives employees a chance to learn more about the company's processes.

During the process, any data indicating a weakness exists (i.e. customer complaints or previous audit findings) is used to identify processes or departments that deserve more attention during the internal audits. An auditor looks for evidence of compliance to the requirements by asking questions like "Are the activities conducted as planned (i.e. as defined in the quality system documents)? Do managers have data that demonstrates process/system effectiveness? Are corrective, preventive or other improvement actions taken as planned? Are actions taken effective?"

Then, every department in the company receives Corrective or Preventive Action Requests (CARs/PARs) forms from auditors that highlighted areas which do not comply with the ISO 9001 requirements. For example, the most number of CARs in the company under study were issued to the Storage Department. They have incomplete records of material and spare parts. Their SOPs are also incomplete as they did not consist of the process flowchart.

Step 5: Perform Preventive and Corrective Action

Based on the flow chart in Fig.3, the fifth step in implementing the ISO 9001 in SMEs is to perform corrective and preventive action based on CARs and PARs. The forms consist of the information on the system like its strengths, weaknesses and ways to improve. Results from the internal audit are documented and used to carry out the corrective action. Upon receiving the forms, managers and supervisors in the department write and propose corrective action plan to counter the incompliance. They introduce changes based on the plan. Evidences of compliance are collected, for example, by interviewing people, observing activities and looking at records and procedures. Only after the auditor verifies that the corrective or preventive actions are taken that the CARs/PARs are closed. In two months, the company under study managed to close all the CARs and PARs issued to all departments.

Step 6: ISO 9001:2008 Assessment & Accreditation

The final step of the implementation process is selecting a registrar for the assessment process. There are three types of ISO assessment which are:

1. First party assessment: a self declaration accreditation by the company to their supplier and customer that they fulfill all or some of the requirements of ISO 9001:2000 standard.

2. Second party assessment: customer performs its own assessment of its supplier's quality system using the ISO 9001:2000 criteria as a guideline and judgment.

3. Third party assessment: contracts with an independent assessment agency to perform the accreditation.

The main characteristic to keep in mind when choosing a prospective registrar is to choose one which has experiences working with SMEs. This way, the registrar understands the SME's capabilities and does not burden them with unnecessary documents. Registrar should understand the basic requirements of the ISO 9001 and audit whether the SMEs comply or not to the QMS standard. Generally, when signing a contract with a registrar, it will include the Registration Audit, and Surveillance Audits. The Registration Audit is the initial audit that will be done to see if the company comply to achieve registration. After the process, the registrar will come back every 6 months or a year to check whether the organization is maintaining the system and continuing to meet the ISO 9001 requirements or not.

In this case study, the company decided on a third-party assessment since they had already completed the ISO 9001 implementation process suggested by the model proposed in this paper. The company managed to pass the consultants audit and proceeded to apply for the ISO 9001:2008 accreditations. After 14 months since the company first knew and understood the ISO 9001:2008, they were successfully accredited with the standard. Now they have the objective proof that they are producing good products by implementing effective QMS. The standard allows them to compete with larger companies in terms of their product quality.

DISCUSSIONS

There are various models and steps of implementing the ISO 9001 and each varies according to the authors' point of views. These divergences somehow bring confusion to some first timer's in the implementation task especially for the SMEs' representatives. Realizing the problem, the model presented in this paper contains six simple yet applicable steps of implementation. The main significant of the model is it aids the SMEs companies to smoothly implement the ISO 9001 instead of relying on generic or computerized documentation system which is usually provided by a third party. The model also helps the SMEs to accomplish all eight main QMS requirements in the ISO 9001:2008 standard. Unlike 27 steps suggested by Lo

and Humphreys (2000) or 18 steps suggested by Fuentes *et al.* (2000), the model only consists of six simple yet practical steps. This way, the SMEs are not discouraged by a lot of activities towards accreditation.

When comparing the model and steps provided with other publications, the most significant difference lies in Step 6: ISO 9001 Assessment & Accreditation. As suggested in a model by Yaacov (1995) and illustrated in Fig.1, this step is situated at the second level. However in this paper, it is in the final step so that the SMEs' representatives start their own implementation journey before getting involved with the consultants or the registrar. Therefore, they do not spend too much time and money for the whole implementation process. With a clear understanding of what they are involved in, the SMEs will make a wiser choice of assessment body and at the same time capable to monitor their system so that it complies with the ISO 9001.

CONCLUSION

Quality includes everybody and everything that affects satisfactory performances or outcomes. To secure a place in the emerging market, companies must achieve internationally accepted quality management system (QMS) level. Therefore, this paper was written to build an alternative implementation model towards ISO 9001 accreditation which is the international standard for QMS. Focusing on the SMEs, the advantages of the model are it is simple yet comprises all major steps required to implement the ISO 9001. It is also applicable for all industries with simple steps that give brief ideas of the tasks to be done in order to be accredited with the ISO 9001 standard.

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SOCIAL SCIENCES & HUMANITIES

Regional Development of Penang: A Shift-Share Approach

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ABSTRACT

The aftermath of the Global Economic Crisis 2008/09 presents many countries with great challenges to capitalize on their competitive advantages. Understanding the characteristics of the Penang industry, the locomotive of the Northern Corridor Economic Region (NCER), is a crucial step toward formulating a strategy aimed at improving competitiveness in the recovering economy. The objective of this paper is to develop a shift-share model by analysing the industrial mix characteristics and its state competitiveness potential factors for economy development in Penang in order to compare state growth against national development. This study examined the economic competitiveness of the Penang economy using Gross Domestic Product (GDP) and employment data to determine the competitive position of the state. This study provided policy-makers systematic insights into the characteristics of the Penang industry so as to analyse the contributor of the state comparative advantage by targeting industries with strategy and implications which offer significant future growth opportunities.

Keywords: Employment, implications, Northern Corridor Economic Region (NCER), Penang, strategy, and shift-share analysis

INTRODUCTION

Malaysia recorded growth rate of over 7% in 1986 to 2000, except during the global financial crisis in 1998-99. However, the country did not reach 7% of growth rate after 2000. The Gross Domestic Product (GDP) growth was slowed down from 6.3% in 2007 to 4.6% in 2008 and further to retract 1.7% in 2009 (Table 1). Based on

United Nations Conference on Trade and Development (UNCTAD) Foreign Direct Investment (FDI) Database, FDI inflows contributed up to 20% of gross domestic product (GDP) in most of the years from early 1980 to 2006 (except for 1990-6 which was up to 26.7%) and dropped to merely 3.5% in 2009, whereas the FDI outflows attained an average of 7% in 1995-2005, crossed the US$10 Billion mark in 2007, and maintained above 20% even during the global recession year 2009 (Table 2 and Table 3). In quantum basis in US Dollar (*see*

TABLE 1
Gross Domestic Product (GDP) Growth rate (%) in Malaysia, 1986-2009

Year	86-91	92	93	94	95	96	97	98	99	00	01	02	03	04	05	06	07	08	09
%	7.2	7.8	8.3	8.7	9.8	10.0	7.5	-7.5	6.1	8.5	0.3	4.1	5.8	6.8	5.3	5.8	6.3	4.6	-1.7

Source: Bank Negara Malaysia Annual Report, 1986-2008
Source: BERNAMA 24th February 2010 for 2009

TABLE 2
FDI Inflows as a percentage of Gross Fixed Capital Formation (GFCF)

Malaysia	1980-4	1985-9	1990-6	1997-9	2000-4	2005	2006	2007	2008	2009
Percentage	11.9	8.7	26.7	17.0	12.7	15.2	20.1	21.2	16.8	3.5

Source: UNCTAD FDI Database

TABLE 3
FDI Outflows as a percentage of Gross Fixed Capital Formation (GFCF)

Malaysia	1995-2005 (Average)	2006	2007	2008	2009
US$ million	1,983	6,084	11,280	14,988	8,038
Percentage (%)	7.0	N/A	28.0	34.5	20.6

Source: UNCTAD FDI Database

Fig.1) in economy growing year of 2008, the FDI outflow was slightly two times of FDI inflows, while it was about seven times of FDI inflows during the global recession in 2009. The economy growth pattern was very much affected by the FDI inflows.

As shown in the Northern Corridor Economic Region (NCER) Blueprint, the Northern Corridor Economic Region (NCER) located in the north of Peninsular Malaysia encompasses the states of Perlis, Kedah, Penang and the four northern districts of Perak. It covers a land area of 2.4 million hectares which accounts for 7.28% of Malaysia's total land area. The region has a population of 4.29 million people. It also accounts for 21% of Malaysia's manufacturing investments, and contributes to 20.1% of Malaysian GDP (NCIA, 2007).

Over the period since industrialization in the 1970s, Penang's economic growth, which has been largely based on export of electronics products, grew at an average of 8% per year. Penang is the third largest economy in Malaysia, after Selangor and Johor.

The technique of shift-share has been increasingly used in regional economic analysis and planning since 1960. Meanwhile, data of Gross Domestic Products (GDP) and employment have been used to provide a picture of the regional economy. The Shift-Share model lends itself to the analysis of the total growth in each economic sector as a composite of growth due to the national growth, growth due to the unique industrial mix of the region, and growth attributable to the competitive share
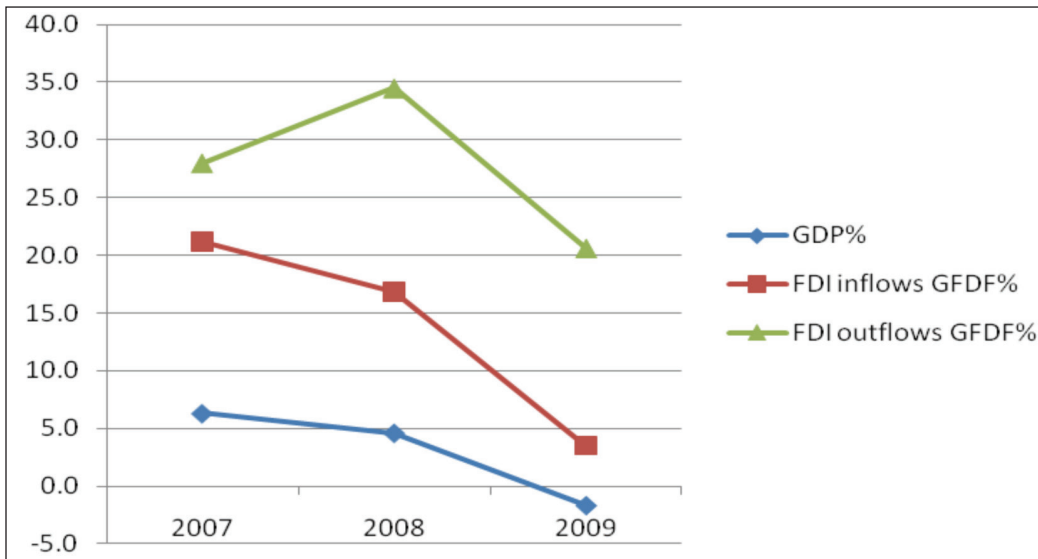
Source: Bank Negara Annual Reports, UNCTAD FDI Database

Fig.1. GDP Growth Rate vs. FDI Inflows and Outflows as GDP percentage

of the region. Industry Mix Effect captures that portion of the industry divergence that is due to the difference between a states composition of industry and the composition of that country's total. Regional Effect measures the effect of differential growth of various industries compared to average national industries. The shift-share model attempts to separate the causes of change into a shift and a share. The technique is based on the assumption that local economic growth is explained by the combined effect of three components, namely, national share, industry mix, and regional shift. The shift-share technique provides a simple, straightforward approach to separating out the national and industrial contributions from local growth. The actual change in a variable over some given periods is different from its expected change which is determined using benchmark figures.

This difference or residual is examined and explained further by a shift and a share. As an analytical tool for this objective, principal component analysis was adopted for the investigation of regional characteristics. Thus, each component's contribution to the local economic growth can be determined. In addition, the shift-share technique may be used to identify a local economy's competitive industries, the industry that outperforms its counterpart at the national level. A shift-share analysis is one way to account for the competitiveness of a region's industries and to analyse the local economic base. This analysis is primarily used to decompose employment changes within an economy over a specific period. It paints a picture of how well the region's current industries perform by systematically examining the national, local, and industrial components of employment change. A

shift-share analysis will provide a dynamic account of the total regional employment growth that is attributable to the growth of the national economy, a mix of faster or slower than average growing industries, and the competitive nature of the local industries.

LITERATURE REVIEW

Regional economy development and policy decision-making are closely related. Carlton (1983) showed that location and employment choice of new firm branches are linked via duality theory. Bauer and Cromwell (1989) found that firm births are positively associated with low wages, low taxes, and a large number of existing firms. The attraction of new firms is an important goal of local economic development policies, which often provide public-sector financial incentives. Their results support the position that bank structure and profitability are significant factors in facilitating economic development. The researchers concluded that since bank credit is an important source of financing for new firms, the differences in bank structure could affect local economic development and growth. Munnel (1992) proposed that only cost-benefit studies could determine which infrastructure projects should be implemented, and while reforms to grant programmes and pricing should occur, the infrastructure investment should not be held off as the public infrastructure investment provides immediate economic stimulus and has a significant and positive effect on output and growth.

In the past, some studies used the shift-share model which was applied in selected industries in Malaysia. Mohd. Arshad and Radam (1997) focused on the export performance of selected electrical and electronics (E&E) products. Chandran and Pandiyan (2004) recommended improvement in diversity, clusters, education, research and development to sustain the progress of high technology industries.

On the other hand, research with application of the shift-share model is rather limited. Ismail and Nik Muhammad (2009) described the growth in Kelantan through shift share analysis. Mondal (2009) developed a Shift-Share model for analysing the unique industrial mix of the East Coast Economic Region (ECER) and its local competitiveness potential for economic development. Mohd Ghazali (2007) found that the manufacturing sector in the Northern Region State, comprising the states of Penang, Kedah, Perak and Perlis, recorded Gross Domestic Product (GDP) contributions as follows: Penang (43.1%), Kedah (21.9%), Perak (16.5%) and Perlis (13.4%), respectively.

OBJECTIVE OF STUDY

The objective of this paper was to develop a Shift-Share model by analysing the industrial mix characteristics and its local competitiveness potential factors for economy development in the state of Penang, and to compare the regional growth against the national development.

METHODOLOGY

Shift-share analysis was used to analyse the composition of the growth of Penang in the 1990s. The shift-share analysis enabled the author to isolate the competitive position of a state from the impact on it of national trends and the industrial mix of GDP that existed in the state at the beginning of the time period being studied. The data were analysed both on a ten-year. The technique of analysis utilised the national GDP data extracted from the Economic Planning Unit (EPU) of the Prime Minister's Department, the state's Gross Regional Products (GRP) data from Penang Statistics published by Socio-Economic and Environmental Research Institute (SERI), and the employment data obtained from the Labour Force Survey conducted by the Department of Statistics (DOS). For the purpose of this research, the growth in five main economic sectors of Malaysia was analysed for the period of 1990-2005. In the case of this study, the data period was selected due to its availability from SERI. Furthermore, it would reflect the achievement of the Five Year Malaysia Plan (MP), namely, from 5MP to 7MP (1990-2000) and 6MP to 8MP (1995-2005). Using the Shift-Share model, the economic performance of Penang in each of its major economic sector could be decomposed to analyse the growth occurring during a period of time. Industries which saw an increase in GDP greater than that implied by Malaysia's overall GDP growth rate are said to have experienced positive net shifts in growth, and conversely for negative net shifts. These shifts in growth were then decomposed into sources of divergence, namely, industry mix effect and regional effect, from which implications for Penang's characteristics of GDP growth could be drawn. The author first investigated the impacts of productivity and output change on employment change in these states by employing the methodology explained by Lann (2005) and Paytas (2002).

$$E_{i,r}^{t_1} \qquad (1)$$

Notation:

is employment or GDP in industry i in region r at time t

If there is no industry subscript, it indicates total employment or GDP in the region

If "r" is for regional subscript, "n" indicates Nation

The technique separates growth into three components; national growth, industrial structure, and regional competition.

National (growth) share estimates the total employment or GDP in industry i in the region if industry i in the region grows at the same rate as the nation, i.e. derived from the base year of region employment or GDP times the total percent national change.

$$NS_{i,r} = E_{i,r}^{t_0} * \frac{E_n^{t_1}}{E_n^{t_0}} \qquad (2)$$

Industry Mix Share estimates the change in employment or GDP in industry i based on the

$$IM_{i,r} = E_{i,r}^{t_0} * \left(\frac{E_{i,n}^{t_1}}{E_{i,n}^{t_0}} - \frac{E_n^{t_1}}{E_n^{t_0}} \right) \qquad (3)$$

difference in the growth rates between industry i nationally and the entire national economy, which was derived from region

industry (base year) times the national growth rate and minus total national growth rate.

Regional "shift" estimated the change in employment or GDP in industry i in the region based on the difference in the growth rates between the industry i in the region and the industry i nationally derived from the region industry (base year) times region growth rate minus total national growth rate.

$$RS_{i,r} = E_{i,r}^{t_0} * \left(\frac{E_{i,r}^{t_1}}{E_{i,r}^{t_0}} - \frac{E_{n}^{t_1}}{E_{n}^{t_0}} \right) \qquad (4)$$

Putting it all together is the shift-share formula for regional growth (Total Employment or GDP Change):

Shift-Share = National Growth Share + Industrial Mix Share + Regional Shift

$$SS = NS + IM + RS \qquad (5)$$

The first step was to identify those industries with very large positive or negative absolute changes. These will be the industries with the greatest likelihood for potential job opportunities. Secondly, the author looked at the local share column. This column gave the first indication as to whether the local area was performing well or poorly and also helped to identify the industry sectors in which the local area might have a comparative advantage. As the local share is larger than the industrial mix, and both figures are positive, these indicate that the local area may have some comparative advantages. Once completed, the analysis provides a representation of the changes in employment growth or decline, and it is useful for targeting industries that

may offer significant future employment opportunities.

The shift-share analysis is a technique used to analyse sources of change in the regional economy, decompose regional economic growth by components and disaggregate regional employment change into three component parts. The results interpreted from the shift-share analysis are listed below:

a. National (Growth) Share (NS): changes in the regional economy/ local job attributable to changes in the national economy.

b. Industrial Mix Share (IM): changes in the regional economy/ local employment attributable to the mix of industries.

c. Regional/Local Shift (RS): changes in regional employment due to unique local factors, or regional competitiveness.

FINDINGS AND ANALYSIS

GDP Growth Performance

Shift-Share (1990-2000):

9,325 = 7,778 +2,186 + (-639)

Shift-Share (1995-2005):

7,873 = 10,801 +2,620 + (-5,548)

As shown in Tables 4 and Table 5, the GDP National Growth Share (Column 10), i.e. a decomposition of Penang's net, shifted in the economy growth by industry up to 2000 and 2005, revealing Penang's strong economy growth performance in

TABLE 4
GDP Growth Performance (1990 – 2000)

GDP (1987 constant prices)	GDP State				GDP National				National Growth Share	Industrial Mix Share	Local Share
Industry	1990	2000	State Change	State Change %	1990	2000	National Change	National Change %			
Agriculture, forestry, fishing	228	228	(1)	0%	17,308	18,662	1,354	8%	225.4	(207.5)	(18.6)
Mining & Quarrying	23	191	168	717%	9,968	15,385	5,417	54%	23.1	(10.4)	155.0
Manufacturing	3,394	7,860	4,466	132%	26,060	67,250	41,190	158%	3,349.6	2,015.4	(899.3)
Construction	250	418	169	68%	3,750	6,964	3,214	86%	246.2	(32.4)	(45.1)
Tertiary	3,987	8,511	4,524	113%	48,892	102,297	53,405	109%	3,934.4	420.6	168.8
Total	7,882	17,208	9,326	118%	105,977	210,557	104,580	99%	7,778.3	2,185.7	(639.2)

TABLE 5
GDP Growth Performance (1995 – 2005)

GDP (1987 constant prices)	GDP State				GDP National				National Growth Share	Industrial Mix Share	Local Share
Industry	1995	2005	State Change	State Change %	1995	2005	National Change	National Change %			
Agriculture, forestry, fishing	216	321	105	48%	17,114	21,018	3,904	23%	172.9	(123.5)	55.4
Mining & Quarrying	163	182	19	12%	13,643	16,387	2,744	20%	129.9	(97.2)	(13.3)
Manufacturing	5,935	9,171	3,236	55%	45,174	107,237	62,063	137%	4,743.0	3,410.9	(4,917.9)
Construction	439	363	(76)	-17%	7,411	9,596	2,185	29%	350.8	(221.4)	(205.4)
Tertiary	6,761	11,350	4,589	68%	83,283	145,547	62,264	75%	5,403.4	(348.5)	(466.4)
Total	13,515	21,387	7,872	58%	166,625	299,785	133,160	80%	10,800.7	2,620.2	(5,547.6)

Manufacturing and Tertiary. Overall, Penang experienced slower growth from 118% in the year 2000 to 58% in 2005, with the share of manufacturing reduced from 46% to 43%, while tertiary increased from 49% to 53% in the same period. On the other hand, the outputs of agriculture products had decreased marginally at 0.31% and constructions experienced a relatively slow growth at 68% during the 1990 – 2000 period, while mining and quarrying grew slower at 12% and a minus growth at -17% for the construction industry for the period up to 2005. Up to 2005, as the National Growth Share of 10,801 was higher than State Growth Share of 7,873, Penang state share should achieve a higher growth if it's the industry composition was same as the national average; nonetheless, all the state industries were found to have under-performed compared to the national growth. In particular, the agriculture growth rate of 48% in Penang was greater than the national agriculture growth average of 23% for the period 1995 to 2005, and the regional growth factor was negative for construction for the same period. In term of GDP Industrial Mix Share (Column 11), the regional shift showed industry-wide changes that occurred due to the local factors that affected unique industry mix of the region. It seemed that the Manufacturing and Tertiary industries enjoyed faster growth rate than national average up to 2000, and only the Manufacturing industry enjoyed a faster growth rate than national average up to 2005. In term of the GDP Local Share (Column 12), Mining and Quarrying, and

Tertiary industries were more competitive than the national average businesses up to 2000, and only the agriculture industry was more competitive than the national average businesses up to 2005.

As for its overall growth, more emphasis and support should be given to the tertiary sector as a strong potential growth sector in Penang's economy. In order to tap on the advantage of large area, undeveloped land (especially those located in Seberang Perai) in Penang should be further explored to search for the potential of the agriculture sector which is more competitive than the national average Local share recently.

Mega projects, such as the construction of the second bridge and Butterworth Outer Ring Road (BORR) running through the region, have not always caused big effects on the agricultural sector although they have great effects on the non-agricultural sectors. Thus, the results obtained may shed useful light into the potential of different economic sectors, with significant policy implications towards accelerating the economic growth of the Penang.

Trends in Penang's Employment Growth

Shift-Share (1990-2000):

168 = 163 +117 + (-112)

Shift Share (1995-2005):

146 = 174 +61 + (-89)

To supplement the analysis, the same shift-share technique was applied to its employment (*see* Tables 6 and 7). In term of Employment National Growth Share

TABLE 6
Employment Growth Performance (1990 – 2000)

EMPLOYMENT Industry	Employment State				Employment National				National Growth Share	Industrial Mix Share	Local Share
	1990	2000	State Change	State Change %	1990	2000	National Change	National Change %			
Agriculture & Fishery	25	19	-5.8	-23%	1738	1188	-550	-32%	8.8	-16.7	2.1
Mining & Quarrying	1	1	0.2	40%	37	45	8	20%	0.2	-0.1	0.1
Manufacturing	173	258	84.9	49%	1333	2616	1283	96%	61.5	104.8	-81.5
Construction	34	2	-32.1	-94%	424	845	421	99%	12.1	21.8	-66.0
Tertiary	225	346	120.4	53%	3154	4372	1218	39%	80.2	6.8	33.4
Total	457	625	167.8	37%	6686	9066	2380	36%	162.8	116.7	-111.9

TABLE 7
Employment Growth Performance (1995 – 2005)

EMPLOYMENT Industry	Employment State				Employment National				National Growth Share	Industrial Mix Share	Local Share
	1995	2005	State Change	State Change %	1995	2005	National Change	National Change %			
Agriculture & Fishery	12	28	16	132%	1,493	1,307	(186.2)	-12%	4.3	(5.8)	17.3
Mining & Quarrying	0	1	0	25%	41	42	1.8	4%	0.1	(0.1)	0.1
Manufacturing	215	207	(9)	-4%	2,028	3,200	1,172.8	58%	77.0	47.6	(133.1)
Construction	27	44	17	61%	717	880	163.0	23%	9.8	(3.6)	10.4
Tertiary	231	353	123	53%	3,721	5,430	1,708.3	46%	82.4	23.4	16.6
Total	486	632	147	30%	7,999	10,859	2,859.7	36%	173.7	61.5	(88.7)

(Column 10), a decomposition of Penang's net shifts in employment by industry up to 2000 and 2005 revealed that Penang's strong economy growth performance was in the tertiary industry. Up to 2005, as the National Growth Share of 174 is higher than State Growth Share of 146, Penang state share should achieve higher growth if its industry composition was same as the national average; especially for the main industry i.e. manufacturing, was under-performed compared to the national growth. First, while employment in Agriculture and Construction shrunk in the 2000, employment in manufacturing experienced a negative growth in 2005. Second, while the state's economy growth experienced slower rate from 118% to 58% respectively in 2000 and 2005, the corresponding employment growth was 37% and 30% for the same years, suggesting that the employment added might not constitute high value added jobs. In term of Employment Industrial Mix Share (Column 11), a positive industrial mix share indicated local employment, especially in the manufacturing and tertiary industries which enjoyed faster growth rates than the national total employment average up to 2000 and 2005. In term of Employment Local Share (Column 12), the tertiary and agriculture industries were more competitive in securing additional employment over those due to national growth and its industrial structure up to 2000 and 2005.

Foreign Direct Investment, Small and Medium Enterprises and Growth

Under the Third Industrial Master Plan (IMP3), domestic private investment (DPI) and foreign direct investment (FDI) were targeted to reach a 60:40 ratio by 2020 (MITI, 2006). According to MIDA (2010), the total approved investment for the manufacturing sector amounted to RM32.6 billion, with a 32:68 ratio between domestic private investment and FDI. Domestic investments accounted for RM10.5 billion while FDIs stood at RM22.1 billion in 2009. The Bank Negara Malaysia Annual Report 2009 showed that the gross national savings (GNS) declined for the first time since 2001 to RM207.2 billion from RM270.9 billion in 2008, led to a savings-investment surplus of RM112.7 billion or 17% of the gross national income (GNI) in BNM (2010). The savings-investment gap has to be lowered further by encouraging domestic private investment. Malaysia dropped to the 20th place in the A.T. Kearney Foreign Direct Investment Confidence Index from 16th in 2007. In contrast, UAE and other Gulf countries were among the top 15 most attractive FDI markets in 2010 A.T. Kearney Foreign Direct Investment Confidence Index (A.T. Kearney, 2010). According to A.T. Kearney Middle East, the Small and Medium Enterprises (SMEs) are the simplest and cheapest way for an economy to diversify and create growth; these businesses contribute more to the GDP and the provisions of jobs. Private

ownership, knowledge, entrepreneurial spirit, flexibility and adaptability are key attributes that enable SMEs to rapidly contribute to the success of a nation's economic development and drive additional FDI (A.T. Kearney Middle East, 2010). In a mature market economy, one of the factors contributing to the growth in SMEs has been an increase in outsourcing activity by large enterprises (Smallbone, 2006).

FDI to manufacturing sector recorded the highest and even achieved RM4.6 billion in the local currency, contributed by the depreciation of Malaysian Ringgit during Asia Financial Crisis in 1999 (Table 8). Based on the latest data, as a manufacturing FDI destination, Penang dropped one rank from the fourth to the fifth place, after Sarawak, Selangor, Sabah and Johor, with investments totalling RM2.17 billion in 2009 during the global recession; RM1.45 billion of which came from overseas, as compared the total investments brought in RM10.16 billion in 2008. Penang's electronics and electrical sector recorded the

highest investment approved in 2009, with RM608.29 mil despite the labour shortage issue (Table 9).

From early 1990s, there have been studies, such as Jomo (1993), Felker and Jomo (1999), Drabble (2000), Narayanan and Wah (2000), Mirza *et al*. (2004) and Henderson and Phillips (2007), which report that FDI provides limited spill over effects and even causes crowding out of the local SMEs. However, from the mid 1990s, other studies have started reported positive inter-firm linkages (e.g. Rasiah, 1995; Jomo, 2001; Rasiah, 2005; Giroud, 2007; Wong *et al*., 2009). According to Hayter and Edgington (2004), Malaysia lacks the domestic entrepreneurs found in abundance in South Korea and Taiwan. Even there is a dedicated SME Bank, the small and medium-scale enterprises (SMEs) are still facing difficulty in securing financing from banks, bureaucracy issue and insufficient incentives, as presented in the National Domestic Investment Dialogue and Seminar reported by the Star (MITI, 2010). Lim and

TABLE 8
Penang Manufacturing FDI (Ringgit Malaysia, billion)

1997	1998	1999	2000	2001	2002	2003	2004
0.42	1.28	4.60	3.56	3.58	1.99	1.46	1.02

Source: MIDA Annual Report as quoted by Lee (2006

TABLE 9
Approved Manufacturing Projects in Penang

Year	2007	2008	2009
Ringgit Malaysia billion	1.15	10.16	2.17
Ranking by State	5th Rank	4th Rank	5th Rank

Source: MIDA. Malaysia: Performance of the Manufacturing and Services Sectors.

Pang (1991) reported that Taiwanese firms, small and large, were not crowded out by FDI. Lee (2009) suggested that the entry of local enterprises into higher value-added industries in South Korea was made possible not by better opportunities, but by capability building associated with tertiary education and private research and development (R&D). In more specific, Chin (2006) and Lee (2006) suggested strategies to enhance the capabilities of the SMEs in Penang to move up the value chain in response to the new business requirements.

CONCLUSION AND LIMITATION

Regional performances provide a basis to assist policy-planning that aids in the decision-making process in allocating funds among the regions. In this paper, the comparative performance of economic growth, as measured by Gross Domestics Product in Penang, was analysed for the period of 1990 to 2005. The research findings concluded that Penang is a rapidly growing region that primarily dependent upon the services and manufacturing industries up to 2000 and 2005 to advance its economic development. From the analyses, significant implications on the economy of Penang could be drawn. First, the key to sustaining robust economy expansion will continue to emphasize on high value-added electronics sectors. Second, while electronics remain its importance in Penang's GDP growth, higher growth in the tertiary sectors could be obtained if greater efforts were made to expand the information and communication technology industry, as indicated in the

Second Penang Strategic Development Plan (PSDP 2). This suggests that the action needed for next stage of Penang development should be improved further based on development expansion policies, such as more open domestic market both for foreign investment and domestic investment. Through NCER blueprint, it stressed that structural changes in the domestic economy could have significant impact on Penang's productivity growth and competitiveness. Thus, Penang can no longer rely on cheap labour, but it should depend on its skills-, knowledge- and technology-capabilities to create a higher value added economy and globally competitive workforce. For this, vocational training and life-long learning are among the efforts done to overcome the issue of lack of technical skills among the industrial workers. The economy will be expanded from predominant assembly and test activities to higher value added activities, including wafer fabrication, chip design, automation design and materials or packaging, Research and Development (R&D), and services, such as tourism and logistics. In addition, private-sector investment of the SMEs should be further encouraged to regain competitiveness. Learning from the experiences of South Korea and Taiwan, and on top of speeding up the capability building policy of the youth enrolment to the tertiary education and R&D spending, further provision of tax and credit concessions are essential in developing the SMEs.

Nevertheless, it is important to note that the shift-share technique is only a descriptive

tool and it should be used together with other analyses to determine a region's economic potential. It does not account for other factors which include the impact of business cycles and the identification of the actual comparative advantages. It is a snapshot of a local economy at two points in time. Thus, the analysis may not offer a clear picture of the local and national economies, as the results are sensitive to the time period chosen. The conclusions of this study could be strengthened if the analyses were made of other time periods or other regions of Malaysia. Therefore, future studies could be improved by using dynamic shift-share formulation (Arcelus, 1984; Barff & Knight, 1988; Harris *et al*., 2004; Li & Huang, 2010), decision tree of industry targeting analysis (McLean & Voytek, 1992), demographically enhanced shift-share model (Brox & Carvalho, 2002), two-category model (Mulligan & Molin, 2004), spatial interaction (Nazara & Hewings, 2004; Fernandez & Mendez, 2005; Márquez & Ramajo, 2005; Evans, 2008), Esteban-Marquillas extension (Toh, Khan & Lim, 2004), decomposition (Felbermayr & Kohler, 2006; Besedes & Prusa, 2007), and incorporation of sectoral structure (Márquez, Ramajo & Hewings, 2009).

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Attitude, Knowledge and Competency towards Precision Agricultural Practice among Paddy Farmers

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ABSTRACT

Previous research indicated that farmers' attitude, knowledge and competency influenced the adoption of technology. Realizing the truth, this study was carried out with the purpose to find factors and answers to questions that influenced the adoption of Precision Agricultural Practice (PAP). The study was carried out on 119 paddy farmers at IADA Barat Laut, Selangor. Results indicated that attitude, knowledge and competency significantly influenced the adoption of the PAP. Hence, to change the farmers' attitude, knowledge and competency are vital aspects in the adoption of the PAP.

Keywords: Attitude, knowledge, competency, technology and precision agricultural practice

INTRODUCTION

Since Malaysia's independence in 1957, food security and self sufficiency became the ultimate goals of the government policy in promoting agriculture as the third engine of economic growth. In the year 2003, the Ministry of Agriculture introduced an innovative measure known as the Precision Agricultural Practice (PAP), with the hope to achieve the aforementioned goals. The PAP was based on Rice Check Manual (RCM), and its purpose was to increase paddy productivity and minimize the dependency on imported rice from major rice exporting countries such as Thailand, Vietnam and Pakistan. Shibusawa (2002) argued that the adoption of the PAP would produce high crop, but minimize productivity and labour cost. Moreover, the adoption of the PAP also encouraged the conservation of the environment (Shibusawa, 2002). In the context of this study, PAP is a method of agriculture management which is a right practice. It refers to the right farming with the right implementation at the right place,

following the right method and the right time based on RCM to get the optimum yield.

Based on the paddy productivity, however, Malaysia was indicated as having the lowest paddy yield among paddy producing countries in the world (FAO, 2008). This can be viewed as the adoption of the PAP in Malaysia only succumbed to partial success compared to other countries which are also adopting the PAP measure. For example, Australia managed to produce three times more the production of paddy even though the area of rice field in Australia is similar to the overall paddy fields in Malaysia (Husain Jahit, 2005). Thus, it is clear that the adoption of PAP in Malaysia has not shown an encouraging progress despite the support of the government in the PAP measure.

The partial success of this adoption might be influenced by farmers' attitude, knowledge and competency towards the adoption of PAP. In more specific, the farmers must be competent in technical efficiency and economical use of input in their rice farming system in order to maximize their productivity and income. Meanwhile, previous research has indicated that attitude, knowledge and competency of farmers are important factors in every level of agriculture agency (Chilonda & Van huylenbroeck, 2001; Burton *et al.*, 2003; Barham *et al.*, 2004). This means failure to follow the standard activities will affect low paddy productivity (Othman Omar, 2008).

According to Rogers (2003), diffusion of innovation occurs through a five–stage

process, and is a type of decision-making process. The process occurs through a series of communication that is channelled over a period of time among members of a similar social system. Rogers (1964) categorizes the five stages, namely; awareness, interest, evaluation, trial, and adoption. One important characteristic of this model is that an individual has the right to reject an innovation during or after the adoption process. In the later version of the Diffusion of Innovations model, Rogers (2003) changed the five previous terminologies to knowledge, persuasion, decision, implementation and confirmation, respectively. However, the description processes of the categories have remained similar throughout this later version of the model.

In the knowledge stage, the individual is first exposed to an innovation, but lacks information about the innovation. It should be noted that during this process, the individual is not inspired to find more information about the innovation. In the persuasion stage, the individual develops an interest in the innovation, and actively seeks information about the innovation. In the decision stage, the individual makes a decision about the innovation, and weighs the advantages and disadvantages of the innovation while considering whether to adopt or reject the innovation. Due to the individualistic nature of this process, Rogers notes that it is the most difficult stage to obtain empirical evidence (1964, p. 83). In the adoption stage, the individual determines the practicality of the innovation

to the context, and further employs the innovation in respect of the context. This stage still requires the individual to acquire further information about the innovation. In the confirmation stage, the individual finalizes the decision to continue using the innovation and may use the innovation to its fullest potential.

Based on this Diffusions of Innovations model, it is necessary to view farmers' attitude, knowledge and competency as the inherent characteristics of innovations that influence an individual's decision to adopt or reject an innovation. Hence, the purpose of this study was to investigate the relationship between the farmers' attitude, knowledge and competency toward the adoption of PAP at Integrated Agricultural Development Area (IADA) in Barat Laut, Selangor. The research framework to be tested is depicted in Fig.1.

The Precision Agricultural Practice Concept

The PAP is based on the recognition of the spatial and temporal variability in crop production. Blackmore (2000) defined precision agricultural as the management of arable variability to improve the economic benefit and reduce management impact on the environment. This definition serves a two-fold purpose. First, it identifies management of variability as the essential factor and not technology, as many people may seem to believe. Second, it aims to change the existing system and to improve economic returns, while reducing the impacts of management practices on the environment. Both of these purposes are aimed to improve the efficiency of the agricultural process.

According to Shibusawa (2002), precision agriculture refers to a management strategy used to increase productivity and economic returns with a reduced impact on the environment. It involves the application of information technology to the extent of variability in the field, variable-rate operations and decision-making system. This process has three technology levels and three strategies in the development of precision farming. According to Shibusawa
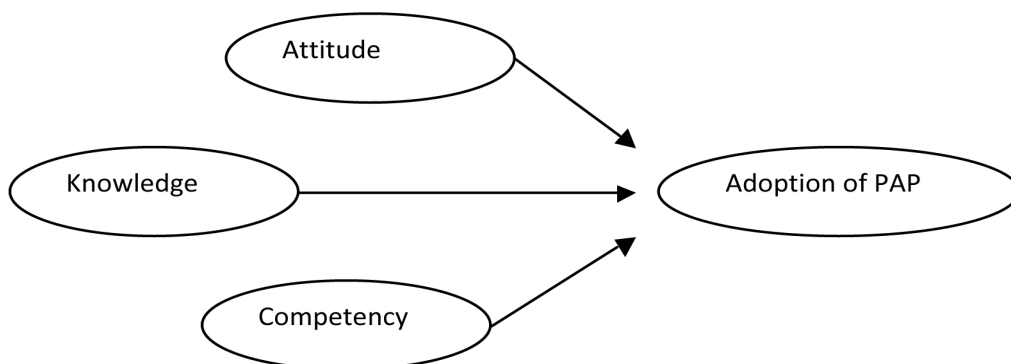

Fig.1: Research Framework

(2002), precision agricultural practices can be used on small farms as well as big farms. Shibusawa (2002) also mentions that precision agriculture plays an important role in rural development programmes which are integrated with the industry.

According to Batte and VanBuren (1999), PAP is not a single technology, but an integration of technologies permitting: (i) a collection of data on an appropriate scale at a suitable time, (ii) interpretation and analysis of data to support a range of management decisions, and (iii) implementation of a management response on an appropriate scale and at a suitable time.

In a study of PAP technologies in developed countries, Tran and Nguyen (2006) highlighted the following advantages to farmers. First, the adoption of the PAP increased the overall productivity. The precise selection of crop varieties, the application of exact types and doses of fertilizers, pesticides and herbicides, and appropriate irrigation meet the demands of crops for optimum growth and development. This led to an increase in productivity, especially in areas or fields, where uniform crop management practices were traditionally practiced.

Second, the adoption of the PAP technology improved efficiency. Advanced technologies, including machinery, tools and information, helped farmers to increase the efficiency of labour, land and time in farming. Third, the adoption of the PAP technology reduced production costs. The application of the exact quantities at the appropriate time was found to reduce the cost of agrochemical inputs in crop production (Swinton & Lowenberg-DeBoer, 1998). In addition, the overall high productivity reduced the cost per unit of output.

Fourth, the adoption of the PAP technology encouraged better decision-making in agricultural management. Agricultural machinery, equipment and tools helped farmers to acquire accurate information, which was processed and analyzed for appropriate decision making, specifically in land preparation, seeding, fertilizer, pesticide and herbicide application, irrigation and drainage, and post-production activities.

Fifth, the adoption of the PAP technology reduces environment impact. The timely application of agrochemicals at an accurate rate avoided excessive residue in soils and water, and thus, reduced environmental pollution. Finally, the adoption of the PAP technology encouraged a better management of farmers' knowledge. All PAP field activities produced valuable field and management information, and the data are stored in tools and computers. Farmers can thus manage the knowledge about their farms and production systems to achieve a much better overall management.

The adoption of the PAP technology in Malaysia is still new. However, measures are taken by government agencies, such as Mimos Berhad, to improve the adoption of the PAP technology through wireless MEMS sensors. These sensors aim to assist farmers to measure humidity, warmth, acidity level, and soil temperature. These wireless MEMS sensors are also able to

assist farmers to measure the level of soil fertility through measurement of the level of nitrate, phosphate and calcium in the soil.

According to Laupa Junus (2008), precision agriculture is a concept of agriculture which allows farmers to control modern-related activities, such as fertilization, irrigation, pest and others, through the use of technology. In other words, precision agriculture refers to implementing the right measures appropriately. Precision agriculture, including agricultural or livestock management methods that are integrated with new information technology, includes several basic factors by results system to enhance productivity and efficiency, thus providing returns the voucher. These basic factors include geographic information systems/ land, fertilizers/ animal feed, and immunization/ pesticides.

Precision agriculture requires new technologies, such as GPS, detector, satellite and information technology systems that can understand and evaluate conditions, such as: (i) a good time to plant seeds, (ii) the correct amount of fertilizer, and (iii) to predict the total harvest yield accurately. Othman Omar (2008) emphasized that neglecting compliance with these standard farming activities would result in low productivity.

Attitude, Knowledge and Competency towards Innovation

The success of precision agricultural on a smaller or a larger scale inevitably depends on these three factors of farmers' attitudes, knowledge and competency (Rogers, 2003). Generally, attitude refers to how people react to certain situations and how they behave in general. Attitudes are the base in developing people, focusing on developing the right attitudes before passing on to knowledge and competency. Knowledge is practical information gained through the learning process, experience or association. Finally, competency refers to the ability to perform specific tasks. Developing or changing someone's attitude requires much more work than developing a competence or gaining some knowledge. A knowledgeable individual will be more successful if that individual also has the right attitude. After developing the attitude, one should focus on competencies. Competencies come before knowledge because it is flexible and can be applied to many different situations.

In agriculture, attitude, knowledge and competency are among three important factors in farmers' decision to adopt innovation (Rogers, 2003). Attitude is stand of ideas, practice and goods (Breckler & Wiggins, 1992). In that conjunction, individual attitude can be positive or negative attitude (Shih, 2004). Meanwhile, research done by Tran *et al*. (2006) on several developed countries indicates that the adoption of PAP showed a positive effect in terms of paddy productivity. However, the paddy productivity in Malaysia is still at a very low level compared to other rice producers in the world. This situation is very unfortunate since the adoption of the PAP has been implemented for the past seven years (FAO, 2008).

Once again, this unsuccessful adoption of the PAP may be explained by farmers' attitudes, knowledge and competency in

its adoption. As Othman Omar (2008) suggested, negligence to comply with these standard farming activities would affect the level of productivity.

Kondoh and Jussaume (2006) analyzed factors when farmers considered the advisability of incorporating new technology into their farming operation. These included how the innovations fit within the specific context of their farming operations and their own attitudes towards technology. Burton *et al.* (2003) also suggested that farmers' attitude towards the adoption of organic horticultural technology in the UK influenced the adoption of organic horticultural technology. Meanwhile, Cavani (2007) examined the influence of farmers' characteristics and their attitude towards improved maize and chemical fertilizer. The researchers found that the farmers' attitude influenced their adoption of chemical fertilizer. Earlier on, in a local study by Rahim and Mazanah (1994), the usefulness of innovation was still found to be low among farmers and this was also influenced by their attitudes towards innovation.

Chirwa (2005) examined the agricultural policies that promoted the adoption of fertilizer and hybrid seed technologies as ways of improving productivity in maize farming by smallholder farmers in Malawi. The researcher found that fertilizer adoption was positively associated with higher levels of knowledge. Similarly, Ahmad *et al.* (2006) also investigated farmers' attitudes and skills of farm management, and found that two-thirds of the respondents

perceived technical skills and enhancing their knowledge as the keys to success. In more specific, the farmers' attitude and skill influenced the willingness and ability to make successful changes to their management practice.

Meanwhile, Alene and Manyong (2007) investigated the effects of farmers' extension education and extension dealings on cowpea production under traditional and improved technology in northern Nigeria. The results revealed the farmers' knowledge affected the adoption of technology and significantly enhanced productivity. The factors supporting technology adoption would thus indirectly raise the minor contributions of farmers' education. This included schooling, participatory technology evaluation, improved seed supply, and market access. The results also indicated that education background not only enhances agricultural productivity, following technology adoption but also promotes the adoption itself. Hence, farmers' knowledge about innovation does influence a decision to adopt that technology (Napier *et al.*, 2004b).

Recently, Useche *et al.* (2009) proposed a model of technology adoption that integrates the demand for individual traits of new technologies with the potential for heterogeneity based on the characteristics of farms and farmers. The results indicated that individual traits, heterogeneity of tastes for traits, and farm/farmers' characteristics shape adoption decisions.

Shibusawa (2002) found that precision agricultural practices can be used on small farms as well as big ones if farmers have

skills, while farmers' skills play an important role in the adoption of technology in rural development programmes. Meanwhile, Barham *et al*. (2004) examined the dynamics of recombinant bovine somatotropin (rBST) implementation to recognize the characteristics that distinguish among non-adopters, and disadopters, as well as early and late adopters. The results confirmed that larger farms with better competency were more likely to adopt rBST.

METHODOLOGY

The total population of the study was 18,947, who were farmers in IADA in Barat Laut, Selangor, Malaysia. The determination of the sample size for this study was on the Statistical Power Analysis. According to Cappelleri and Darlington (1994), Cohen Statistical Power Analysis is one of the most popular approaches in the behavioural sciences in calculating the required sampling size. For this study, the required sample size was estimated using the G Power. Buchner *et al.* (1992) investigated the agreement between the G Power results and the tables published by Cohen in 1988. In general, Cohen (1988) and G Power agreed quite well. According to Buchner *et al.* (1992), a perfect two-digit agreement with G Power's accuracy mode results cannot be expected because most of the power values and sample size tables in Cohen (1988) are based on approximations. Using the G-Power software to identify the sample size, 119 farmers were selected. To achieve the objectives of the study, self-administered questionnaires were distributed using Convenience Sampling Method to 119 farmers during the series of extension programmes from October to December 2009. This sampling method was implemented because this particular research involved a large population in large area (Burns & Grove, 2001).

The topics of the questionnaire included farmers' demographic, attitude, knowledge, competency and the level of adoption of the PAP. The study used an adopted version of the farmers' attitude scale developed by Shaw dan Wright (1967) consisting of eight items. It was used to investigate the perception of farmers towards the adoption of the PAP. This attitude measure required the participants to rate on a 7-point Likert-type scale, ranging from 1 (strongly disagree) to 7 (strongly agree). Farmers' knowledge and competency about PAP were adopted from Rogers and Havens (1961) which consisted of nine items each, and were used to investigate the level of farmers' knowledge and competency towards the adoption of the PAP. Meanwhile, PAP was adopted from Cavani (2007) with some modifications to the 23-item based on RCM. It was used to investigate the extent to which the farmers adopted the PAP in their farms. This measures required the participants to rate on the 7-point Likert-type scale, ranging from 1 (not at all) to 7 (too often).

The scale's alpha coefficient in this study demonstrated a high reliability for attitude ($\alpha = .86$), knowledge ($\alpha = .84$), competency ($\alpha = .94$) and PAP ($\alpha = .86$). Meanwhile, the assessment of the content validity in this study was developed based

on an extensive review of the literature and detail evaluations comprising of two committee members, who are professionals and experts in the related fields.

RESULTS

As shown in Table 1, from the total number of respondents analyzed, results indicated that the average of the respondent age was 52.05 years old. As for the size of land area, farmers harvesting rice average 2.53 hectare area with a standard deviation of 2.24. Meanwhile on average, the rice production in the Integrated Agricultural Development Area Barat Laut Selangor (IADABLS) is at a good rate, which is 5.83 tons per hectare. This rate is much better than the average production of rice for the whole country which is at 3.38 tons per hectare.

TABLE 1
Mean and Standard Deviation of the Demographic and Productivities

Variable	Mean	SD
Age	52.05	13.04
Land size	2.53	2.24
Productivity (tan per/hectare)	5.83	0.82

Based on the results presented in Table 2, the total mean of 5.60, with a standard deviation of 1.01, indicates that the attitude of farmers in this study was at a good level. Similarly, the result for the level of knowledge was also indicated as quite high, with $M = 5.51$, $SD = 0.84$. Meanwhile, the level of competency was found to be slightly lower than knowledge, with $M = 5.47$, $SD = 0.85$, but it could still be considered as a good result. Finally, the adoption of PAP

indicated a high level, with $M = 5.90$, $SD = 0.69$.

TABLE 2
Means and Standard Deviation of the Variables

Variables	Mean	SD
Attitude	5.60	1.01
Knowledge	5.51	0.84
Competency	5.47	0.85
Adoption of PAP	5.90	0.69

In this study, the correlation between the farmers' attitude, knowledge and competency with the adoption of PAP was also calculated. The results indicated a moderate positive correlation between the farmers' competency and the adoption of PAP ($r = .607$, $p < .01$). This finding indicated that higher ratings on the competency scale were associated with the higher ratings on the adoption of PAP.

TABLE 3
Correlation among the Variables

	1	2	3	4
1. Attitude	1			
2. Knowledge	0.532[**]	1		
3. Competency	0.467[**]	0.673[**]	1	
4. PAP	0.496[**]	0.532[**]	0.607[**]	1

Meanwhile, other correlations were also found to be significantly related. The result showed that attitude ($r = 0.496$, $p < 0.01$) was a positive predictor to the adoption of the PAP. This finding is consistent with that of Ahmad *et al.* (2006) who also found that the attitude towards innovation possessed a significant relationship with the adoption of an innovation. This finding also revealed that the farmers' attitude towards the adoption of the PAP would influence

the adoption of the PAP. Finally, this study also found a significant relationship between knowledge and the adoption of the PAP (r = 0.532, p < .01). This finding is consisted with that of the study conducted by Alene *et al.* (2007).

To determine the best set of predictor variable in predicting PAP, a stepwise regression method was used. Based on the stepwise method used, only two predictors were found to be of significance in explaning PAP. The two predictor variables are attitude (X_1) and competency (X_3). Knowledge (X_2) was excluded because it did not contribute in significance ($t = 1.318$, $p = 0.190$) to the variation of the dependent variable (PAP).

As depicted in the coefficient table (*see* Table 4), the estimated of the model coefficients for b_0 is 2.607, b_1 is .235 and b_3 is .408. Therefore, the estimated model is as below:

$$Y = 2.607(b_0) + .235 (b_1) + .408 (b_3) + e*$$

The R^2 of 0.435 implies that the two predictor variables explain about 43.5% of the variance/variation in the PAP. This is quite a good and respectable result. The ANOVA table reveals that the F-statistic ($F = 29.539$) is very large and the corresponding p-value is highly significant (0.0001) or lower than the alpha value of 0.01. This further indecates that the slop of the estimated linear regression model line is not equal to zero and confirms that there is a linear relationship between PAP and the two predictor variables.

As depicted in Table 4, the largest coefficient is 0.330, which is for competency. This means that this particular variable makes the strongest unique contribution to explaining the dependent variable (PAP), when the variance explained by all other predictor variables in the model is controlled for. Thus, it is suggested that one standard deviation increase in competency is followed by .408 standard deviation increase in the PAP. The Beta value for attitude is (0.235), suggesting that one standard deviation increase in attitude is followed by 0.235 standard deviation increase in the PAP.

Based on the collinearity diagnostic table obtained, none of the model demensions has the condition index above the threshold value of 30.0, none of tolerance values is smaller than 0.10, and the VIF statistics is less than 10.0, indicating that there is no serious multicollinearty problem among the predictor variables of the model.

TABLE 4
ANOVA Coefficients

	β	Std. Error	BETA	t	Sig.
Constant	2.607	.358		7.275	.000
Attitude	.159	.057	.235	2.795	.006
Knowledge	.109	.083	.132	1.318	.190
Competency	.330	.078	.408	4.246	.000
R^2	0.435				

DISCUSSION

This study examined the relationship between the farmers' attitude, knowledge, competency and the adoption of the PAP. This study confirmed that attitude, knowledge and competency were significantly and positively related to the adoption of the PAP. As noted by Cavani (2007), farmers' positive attitude towards innovation influenced the adoption of chemical fertilizer innovation in their farms. Therefore, this study verified that the farmers' attitude had positive and direct effects on the adoption of the PAP. It could be concluded that as the positive attitude towards innovation increases, the adoption of PAP will also increase. Unfortunately, to the researchers' knowledge, no study has specifically examined the direct relationship between attitude, knowledge, competency and the adoption of the PAP. Therefore, this study showed that knowledge has positive and direct effects on the adoption of the PAP. The results by Chirwa (2005) also revealed that innovation in fertilizer adoption was positively associated with higher levels of farmers' knowledge. This suggests that taking steps to enhance farmers' knowledge may be an effective way to increase the adoption of PAP. Therefore, this study has verified that the farmers' knowledge has positive and direct effects on the adoption of the PAP. Barham et al. (2004) have also suggested that farmers with competency are more likely to adopt innovation and new technology in their farms. According to many researchers, competency appears to be a key determinant of the adoption of

innovation and technologies (Cummings & Teng, 2003; Alene & Manyong, 2007; Useche et al., 2009). Similarly, this study also verified that the farmers' competency had positive and direct effects on the adoption of the PAP.

CONCLUSIONS AND IMPLICATIONS

On the whole, the findings are congruent with those of the previous studies, and hence, support the Diffusion of Innovation Theory by Rogers (2003). The adoption of the PAP among farmers in IADABLS is at a high level. This is because the IADABLS has received the earliest PAP programme organized by Malaysian Agricultural Research and Development Institute (MARDI) and Universiti Putra Malaysia (UPM). This high level of PAP shows that farmers in this study have good knowledge, attitude and competency in the adoption of PAP. In this study, competency is a big contributor towards the adoption of the PAP. This is evident when it appears from the findings that competency is the most powerful factor influencing the increase in the adoption of the PAP. Consequently, improvement efforts should be based on enhancing farmers' competency, for example, through more extension programmes. The authorities, particularly the Agriculture Department, should strive to maintain and further enhance the adoption of the PAP by improving the competency of farmers in terms of providing training besides changing them to have better attitude and knowledge. The researchers also suggest that future research should

not only look the individual factors, but also cover the roles of the extension agents and the involvement of the agriculture organizations in this project. Other factors should be considered in future research to complement this study are such as the infrastructure, organizational support, local cultural factors, including the role and the influence of politicians in influencing the adoption of the PAP.

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Household Food Insecurity among Urban Welfare Recipient Households in Hulu Langat, Selangor

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ABSTRACT

Food insecurity is defined as a condition whenever people are not able to access enough food at all time for an active and healthy life, as well as the availability of adequate and safe food acquired by socially acceptable ways. This study utilized the Malaysian Coping Strategy Instrument (MCSI) to determine the percentage and the risk factors of food insecurity among the urban welfare recipient households in Hulu Langat, Selangor. A total of one hundred and three women (aged 20-55 years old) from selected welfare recipient households were involved in this study. Questionnaires were used to collect demographic and socio-economic information, as well as food security status of the participating households. The results indicated that 26.3% of the households faced food security, while 39.8% experienced moderate food insecurity, and 34.0% were subjected to severe food insecurity. The risk factors of food insecurity included the presence of children below 7 years old ($F=3.690$; $p \leq 0.05$), school-going children ($F=2.599$; $p \leq 0.5$), disabled members in the households ($F=3.690$; $p<0.028$), income reliance on financial assistance and per capita income ($F=4.349$; $p \leq 0.05$). In conclusion, food insecurity is a major public health problem among the urban welfare recipient households. Meanwhile, diverse risk factors were identified to have contributed to food insecurity in this study. Therefore, welfare recipient households with these circumstances ought to give priority to intervention programmes that address food insecurity by policy makers and programme implementers. In addition, the intervention programmes should be designed to address this issue and other risk factors influencing food acquisition.

INTRODUCTION

Food security exists when people at all time have physical and economic access to sufficient safe and nutritious food that meets their dietary needs and food preferences for an active and healthy life (World Food Summit, 1996). On the other hand, food insecurity occurs whenever people are not able to access enough food at all time for an active and healthy life, as well as the availability of adequate and safe food acquired by socially acceptable ways (Life Sciences Research Office, 1990).

Food insecurity has been recognized as a major public health problem in developing countries. Several studies in the developing countries have reported that the prevalence of food insecurity was 55.8% among poor urban households in Thailand (Piaseu & Mitchell, 2004), 94.2% in East Java, Indonesia (Studdert *et al*., 2001), as well as 58.0% and 44.4% among households in India, with and without children, respectively (Nnakwe & Yegamia, 2002). Conversely in Malaysia, a few studies reported that the percentages of food insecurity among the samples of low-income urban and rural households were 67.0% and 58.0%, respectively (Zalilah & Khor, 2004; Zalilah & Ang, 2001).

Meanwhile, risk factors of food insecurity include any ones that limit household resources, such as money, time, information, health or even the proportion of those resources available for food acquisition (Campbell, 1991). In addition, household food insecurity has been associated with demographic and socio-economic status, such as poverty, household size, number of school children, low income household and low income per capita (Tanumihirdjo *et al.*, 2007). Food insecurity affects dietary intake, nutritional status and physical well-being of individuals (Kirkpatrik & Tarasuk, 2008; Wolfe & Frongillo, 2001). In addition, it also has been associated with inadequate dietary intake, poor nutritional status and quality of life that are indicated as the consequences of food insecurity (Kirkpatrick & Tarasuk, 2008; Olson & Strawderman, 2008). Thus, the purpose of this study was to investigate the percentage and risk factors of food insecurity among the urban welfare recipient households in Hulu Langat, Selangor.

LITERATURE REVIEW

The main factors affecting food insecurity in developing countries include poverty, natural hazards (i.e. drought, floods), political crisis (i.e. failure of governance), war upheaval, macro-economic crisis (i.e. fluctuation in food production and price changes), health and sanitation, HIV/AIDS, gender issues (i.e. families headed by females with children, lack of income controlled by women, single mothers with children), and education inequality (Clover, 2003; Khadka, 1990). On the other hand, in developed countries such as the United States, the major risk factors of food insecurity are poverty and unemployment (Quinonez *et al*., 2003). According to

Smith *et al*. (2000), all these risk factors can be grouped into two clusters which represent either an inadequate national level of food availability or an inadequate sub-national level of food accessibility, such as households and individuals.

Poverty is one of the major factors that contributes to food insecurity and hunger. It occurs when there is a lack of basic needs, such as food, social and cultural life, primary education, health, clothing, housing, water and air. Poverty can almost inevitably lead to little power and choice or serious deficiencies in the amount and control of resources (Susilowati & Karyadi, 2002). Meanwhile, unemployment is always closely related to household food insecurity (Gundersen & Gruber, 2001; Gundersen & Oliveira, 2001). Besides, it is possible that unemployment may contribute to the lack of food choice, as well as the fear of running out of food or major changes in eating habits.

Numerous studies have reported that a large size of household, with a high number of school-going children, is related to food insecurity (Normen *et al.,* 2005; Mohd Shariff & Khor, 2005; Furness *et al.,* 2004; Zalilah & Khor, 2004; Nnakwe & Yegammia, 2002). Larger households will definitely require greater expenditure to meet the needs of food consumption and to ensure an adequate distribution of food among the household members, which may contribute to food insecurity. In addition, with more school-going children in the household, the greater the household expenditures on clothing, footwear and pocket money for school will be.

Several previous studies have also found that food insecurity is associated with families headed by females with children (Lemke *et al*., 2003; Rose & Charlton, 2002). In particular, households with single parents could have extra expenses associated with child care, apart from other expenses, to meet the needs or demands for food consumption (Rose, 1999). Rosenhouse (1989) stated that female-headed households generally have a tendency to be poorer, own less land and have less access to land, labour and government services, including credit.

METHODOLOGY

Background

This study was conducted in Hulu Langat District, which is located about 20 km from Kuala Lumpur. It is the fifth largest district in Selangor, with a population of 915,667 people and comprises both urban and rural settlements, with the majority of the population settling in towns near Kuala Lumpur. Hulu Langat District encompasses an area of 484.32 km^2 with seven sub-districts (*mukim*), including Dusun Tua, Ampang, Cheras, Hulu Semenyih, Kajang, Beranang and Semenyih. According to the Department of Welfare, Selangor, the district had 1,181 households receiving financial assistance, which comprised 9.0% of the total welfare recipients in Selangor in 2004.

This study employed the cross-sectional and survey technique in order to obtain the quantitative data. A purposive sampling

was utilized to determine the households from the Welfare Recipient Households in Hulu Langat, Selangor. Purposive sampling is recommended when the households are selected due to some characteristics (Patton, 1990). This study defines purposive sampling as randomly selecting units without replacement from the particular part of the population which is supposed to yield samples that give the estimate of the population parameter of concern. This sample selection is called as the purposive random sampling (Guarte & Barrior, 2006).

Respondents

A list of welfare recipients was obtained from the Welfare Office of the Hulu Langat District. In total, there were six centres under the Welfare Office of the Hulu Langat District; however, only five centres (i.e. Kajang, Bangi, Hulu Langat, Ampang and Cheras) were selected. The Beranang centre was not selected because of its location, which is in the rural area. A total of 105 households were identified, comprising 66 Malays and 39 Indians. However, two Indian respondents later withdrew from participating in the study. A prevalence of 65.7% of food insecure households in Kuala Lumpur (Zalilah & Ang, 2001) was used in the sample size calculation. The sample size calculation was based on Cochran (1977), as follows:

$$N = z^2_{1-\alpha/2} (p) (1-p) / d^2$$
$$= (1.96)^2 (65.7) (100-65.7) / (10^2)$$
$$= 86.6$$
$$= 87$$

α is set as 0.05 ($\alpha = 0.05$)
z is set as 1.96 (z = 1.96)
d = accuracy level that is allowed for estimating the prevalence of household food insecurity, set as $\pm$ 10% (d = $\pm$ 10%)

The minimum sample size was 87. However, a total of 103 respondents participated in this study.

Data Collection Procedures

Ethical approval was acquired from the Ethical Communities of the Faculty of Medicine and Health Sciences, Universiti Putra Malaysia. Permission was obtained from the Welfare Department of Malaysia, the Welfare Department of Selangor and the Welfare Office of Hulu Langat District. All the respondents were briefed on the study and requested to sign the informed consent forms prior to data collection. In addition, a structured questionnaire (divided into two parts) was also used to collect the data. The first part focuses on the demographic and socio-economic information of the households obtained, which includes the age of the women, household size, number of children, number of school-going children, marital status, education and occupation of the respondents as well as their spouses, total food expenditure, household income and per capita income. Meanwhile, the second part of the questionnaire addresses the food security status using the Malaysian Coping Strategy Instrument (MCSI) as a direct indicator to measure food insecurity (Norhasmah *et al.,* 2010). Norhasmah (2010)

developed and validated the Malaysian Coping Strategy Instrument (MCSI) as a direct indicator to measure household food insecurity because validated and culturally specific direct measurement in Malaysia was not available. The development and validation processes of MCSI employed both the qualitative and quantitative approaches with three phases of study. MCSI was found to be a reliable and valid measurement of household food insecurity based on internal consistency, construct validity, and criterion-related validity, particularly in terms of the demographic, socio-economic and diet diversity.

MCSI consists of 12 and 15 food- and non-food related coping strategy items in relation to household food insecurity, respectively. In this study, the food- ($\alpha = 0.505$) and non-food ($\alpha = 0.527$) related coping strategies had acceptable internal consistency for a preliminary study (Nunnally, 1967). It is important to note that this particular instrument was designed for the person responsible for food acquisition and preparation in the household. The respondent was asked the following question, "In the past month, how often did you have to use this coping strategy due to not having enough food or money to buy food?" (see Table 1). Three of the non-food related coping strategy items were dichotomous (Table 2). If the responses from the respondents were affirmative, the respondents were then asked a question related to the perceived severity of the coping strategies (items) based on the ordinal ranking (i.e. not

severe=1; quite severe=2; severe=3; very severe=4). Notably, the severity of coping strategies was a matter of perception by the respondents (CARE/WFP, 2003; Maxwell *et al.,* 1999). The severity weighting of a strategy was determined using a formula (Norhasmah *et al.,* 2008). A discrete score for each strategy was obtained by multiplying the relative frequency (RF) and severity weighting, and adding it together to make up a cumulative food insecurity score (CARE/WFP, 2003; Maxwell, 1996) or the MCSI score. The higher the MCSI score, the greater the level of household food insecurity will be. The MCSI scores of the households were divided into three tertiles; namely, the 1st tertile, 2nd tertile and 3rd tertile. The households were classified based on their MSCI scores. The 1st tertile of MCSI was indicated as the household food security, followed by the 2nd tertile indicated as the moderate household food insecurity and the 3rd indicated as the severe household food insecurity.

Data Analysis

The Statistical Package for Social Science (SPSS) for Windows was used in the data analysis. A one-way analysis of variance (ANOVA) and Independent Sample t-test were utilized to compare the mean MCSI scores by levels of demographic and socio-economic variables (i.e. household size, number of children below 7 years old, number of school-going children, number of disabled people in the household, income reliance on financial assistance and per capita income).

TABLE 1
The Malaysian Coping Strategy Instrument (MCSI) Items

Question:

In the past month, how often did you have to use this coping strategy due to not having enough food or money to buy food? Please indicate the perceived severity of coping strategy.

Food-Related Coping Strategies	Relative Frequency (RF)*				Perceived Severity**
	Times/ day	Times/ week	Times/ month	Never	
Using less expensive food					
Using less preferred food					
Consuming whatever food is available around the house					
Receiving food assistance from agencies/ neighbours/ siblings/individuals/employer					
Borrowing money to buy food from employer/friends/ neighbours/siblings					
Purchasing food on credit					
Sending children to eat with mothers/ siblings/at neighbours' houses					
Allocating money to buy staple and less preferred food					
Reducing the number of meals eaten in a day					
Favouring certain household members over the others					
Skipping meals the whole day					
Cutting down the portion size or number of dishes for meals					
Non-Food Related Coping Strategies					
Buying less expensive clothes or buying clothes on credit					
Receiving clothes from individuals or agencies					
Buying new clothes for children but not for mothers					
Reducing children's school pocket money					
Children do not take money to school					
Requesting money from relatives or friends					
Selling or pawning of assets (jewellery)					
Being thrifty in using money					
Engaging in odd jobs					
Buying less expensive products or shopping at cheaper places					
Planning for expenditure					
Not attending or giving gifts during parties or festivals					

* Relative Frequency: Everyday = 7; 3-6 /week = 4.5; 1-2/week = 1.5; less than 1/week = 0.5; never = 0 (CARE/WFP, 2003; Maxwell *et al.,* 1999)
** Level of perceived severity: Not Severe =1; Quite Severe=2; Severe=3; Very Severe=4 (CARE/WFP, 2003; Maxwell *et al.,* 1999)

TABLE 2
Dichotomous Questions of the Malaysian Coping Strategy Instrument (MCSI) Items

Question:

In the past month, did you have to do any of these things due to not having enough money to buy food? Please indicate the perceived severity of the coping strategies used.

Non-Food Related Coping Strategies	Relative Frequency Perceived (RF)* severity**	
	Yes	Never
Delaying the payment of the house rental		
Delaying the payment of bills until a warning letter is received or supply terminated		
Delaying the payment of bills		

 * Relative Frequency: Yes =1; Never = 0
** Level of perceived severity: Not Severe =1; Quite Severe=2; Severe=3; Very Severe=4
   (CARE/WFP, 2003; Maxwell *et al.,* 1999)

RESULTS

Demographic and Socio-economic Characteristics and Percentage of Food Insecurity

Table 3 presents the demographic and socio-economic characteristics of the households. The data of the 103 respondents (i.e. 66 Malays and 37 Indians) were analyzed. More than half of the respondents (57.3%) were middle-aged (40-50 years old), followed by those in the age group of 30-39 years (27.2%). The mean age was 41.55 ± 6.57 years old, ranging from 25 to 55 years old. Of all the respondents, 51.5% were divorcees or widows, while 43.7% were married and 4.9% were single living with their sisters, brothers or parents. Approximately 34.0% had 6 to 10 family members and the average household size was 5.86 ± 3.07. Nonetheless, the mean household size in this sample was higher than the national average of 4.5 (Ninth

Malaysian Plan, 2006). The mean number of children was 4.03 ± 2.56.

About 61.2% of the respondents had 1 to 2 family members suffering from chronic diseases, such as hypertension, diabetes mellitus, cancer, as well as physical or mental disability. In addition, 29.1% of the respondents and 23.8% of their spouses had at least completed the primary school education. The mean years of schooling for the respondents and their spouses were 7.03 ± 4.03 and 8.29 ± 3.95, respectively.

Meanwhile, the mean monthly household income was RM894.31 $\pm$ 373.23. The household income was based on the income of the respondents and their spouses, other family members staying together in the household, part-time wages and monthly financial assistance. Approximately 26.2% of the households were considered as poor based on the official poverty line income of the Ninth Malaysian

TABLE 3
Demographic and Socio-economic Characteristics of the Respondents

Characteristics	Total (n=103) n (%)
Age (years)	
25 – 29	5(4.9)
30 – 39	28(27.2)
40 – 49	59(57.3)
50 – 55	11(10.7)
Mean ± SD	41.55 ± 6.57
Min-Max	25-55
Marital status	
Bachelor (lived with somebody)	5 (4.9)
Married	45 (43.7)
Divorcees/Widows	53 (51.5)
Household size	
1 – 5	60 (58.3)
6 – 10	35 (34.0)
≥11	8 (7.8)
Mean ± SD	5.86 ± 3.07
Min-Max	1-18
Number of children	
0	5 (4.9)
1 – 3	49 (47.6)
4 – 6	33 (32.0)
≥ 7	16(15.5)
Mean ± SD	4.03 ± 2.56
Min-Max	0-13
Number of school-going children	
0	17 (16.5)
1 – 2	42 (40.8)
3 – 4	33 (32.0)
≥ 5	11 (10.7)
Mean ± SD	2.40 ± 1.90
Min-Max	0-11
Disable members in the household	
No	30 (29.1)
Yes	73 (29.1)
Number of disable members in the household	
Education level (years)	
Never attended school	17 (16.5)
1-6	30 (29.1)

Table 3 (*continued*)

7-9	24 (24.3)
10-11	29 (28.2)
≥ 12	3 (2.9)
Mean ± SD	7.03 ± 4.03
Min-Max	0-14
Husband's Education Level (years) (n=42)	
Never attended school	5 (11.9)
1-6	10 (23.8)
7-9	10 (23.8)
10-11	11 (26.2)
≥ 12	6 (14.3)
Mean ± SD	8.29 ± 3.95
Min-Max	0-14
Household Income (RM)*	
< 691	27(26.2)
≥ 691	76(73.8)
Mean ± SD	894.31 ± 373.23
Min-Max	99-2040
Per capita Income (RM)**	
< 93	16 (15.5)
93 –155	33 (32.0)
≥ 155	54 (52.4)
Mean ± SD	177. 71 ± 92.50
Min-Max	12.38-533.33

* Official poverty line in Malaysia (Ninth Malaysia Plan, 2006)
** The cut-off point for the per capita income in Malaysia was RM93 (Ninth Malaysia Plan, 2006)

Plan (2006). Moreover, approximately 15.5% and 32.0% of the households were considered as hard-core poor (< RM93) and poor (RM93 – RM155), based on per capita income, respectively (Ninth Malaysian Plan, 2006). The percentage of the household food insecurity is presented in Table 4. Apparently, majority of the households (73.8%) had some kind of household food insecurity with 39.8% assigned to moderate household food insecurity and 34.0% to severe household food insecurity.

TABLE 4
Percentage of Household Food Insecurity

Food Security Status	Total n=103 n (%)
1st tertile of MCSI score (Food Security)	27 26.3)
2nd tertile (Moderate Food Insecurity)	41 (39.8)
3rd tertile of MCSI score (Severe Food Insecurity)	35 (34.0)
Mean MSCI Score ± SD	55.12 ± 19.64
Min MSCI – Max MSCI	16.50 -106.00

Demographic and Socio-economic Characteristics as the Contributing Factors of Food Insecurity

The comparisons of MCSI scores between household demographic and socio-economic characteristics are illustrated in Table 5. The higher the MCSI scores, the greater the level of household food insecurity. The mean MCSI score increased with larger numbers of children below seven years in the households. Households with 2 (62.6 ± 20.2) and ≥ 3 (59.7 ± 18.1) children below 7 years old had a significantly higher mean MCSI score than the households with 1 (51.1 ± 19.0) children below seven years old (F=3.690; p≤0.05). Similarly, the mean MCSI score increased with the increasing number of school-going children. Households with 1-3 school children (56.0 ± 22.0) and households with ≥4 (59.7 ± 15.4) had a significantly higher mean MCSI score compared to the households without any school going children (46.0 ± 10.3) (F=0.079; p≤0.5). Meanwhile, there was a significant increase in the mean MCSI score as the number of disabled members in the household increased (p≤0.05). Households with 1 (62.6 ±20.2) and ≥ 2 (63.5 ± 18.1) disabled members had a significantly higher mean MCSI score compared to the households without any disabled members.

There was a significant increase in the mean MCSI score as household income relied on financial assistance (p≤0.01). Households that received financial assistance ≥ RM250 (65.5 ± 18.0) had the highest mean MCSI score compared to the households which received financial assistance between RM100 to RM250 (52.1 ± 20.2) and < RM100 (49.2 ± 8.7). Similarly, the lower the income, the tendency of a household to receive financial assistance will also be higher. Hence, a decreasing pattern was found in the mean MCSI scores by the household income and per capita income. Households below the poverty line (56.2 ± 21.7) had a slightly higher mean MCSI score compared to those which were above the poverty line (19.26 ± 18.36); however, the difference was not significant. Meanwhile, the poor households (per capita income ≤ RM155) (59.01 ± 19.45) had significantly higher mean MCSI scores than the households with per capita income of ≥ RM155 (51.45 ± 19.28). A low standard deviation of the MCSI scores indicated less severe food insecurity because it was closer to the mean MCSI score. On the contrary, a high standard deviation of MCSI scores indicated more severe food insecurity due to the spread over a large range of mean MCSI score.

DISCUSSION

This study attempted to estimate the percentage and identify the risk factors of food insecurity among the urban welfare recipient households in Hulu Langat, Selangor. The estimation for the percentage of food insecurity in this study was higher compared to the findings identified from the prior study among the samples of low-income urban and rural households in Malaysia (Zalilah & Ang, 2001; Zalilah & Khor, 2004). The possible explanation for higher

TABLE 5
The MCSI Score According to the Household Demographic and Socio-economic Characteristics

Characteristics	CSI (Mean ± SD)	F[1] or t[2]	Sig.
Number of children below 7 years old		3.690[1]	0.028*
1	51.1 ± 19.0		
2	62.6 ± 20.2		
≥3	59.7 ± 18.1		
Number of school-going children		2.599[1]	0.079†
0	46.0 ± 10.3		
1-3	56.0 ± 22.2		
≥ 4	59.7 ± 15.4		
Number of disabled members in the household		3.690[1]	0.028*
0	51.1 ± 19.0		
1	62.6 ± 20.2		
≥ 2	63.5 ± 18.1		
Financial assistance		5.346[1]	0.006**
< MYR 100 (< USD 27.4)	49.2 ± 8.7		
MYR 100- MYR 250 (USD 27.4-USD 68.6)	52.1 ± 20.3		
≥ MYR 250 (≥ USD 68.55)	65.5 ± 18.0		
Household Income[3]		0.325[2]	0.745
< MYR 691 (< USD 189.3)	56.2 ± 21.7		
≥ MYR 691 (≥ USD 189.3)	54.7 ± 19.0		
Income per capita[4]		1.97[2]	0.05*
≤ MYR 155 (USD 42.5)	59.0 ± 19.46		
≥ MYR 155 (≥ 42.5)	51.5 ± 19.28		

[1] One-way ANOVA; [2] Independent samples t-test
[3] Official poverty line in Malaysia (Ninth Malaysia Plan, 2006)
[4] The cut-off point for the income per capita in Malaysia was MYR93 (Ninth Malaysia Plan, 2006)
Significance level: ** = $p \leq 0.01$; * = $p \leq 0.05$; † = $p \leq 0.5$
1 USD = 3.65MYR

percentage of food insecurity in this study could be related to the sample study among the welfare recipients; whereby the basic eligibility for financial assistance from the Welfare Department of Malaysia is to have a household income less than RM400.00 per month. However, the percentage of food insecurity in this present study was lower than the sample among the *Orang Asli* households (81.2%), as studied by Zalilah and Tham (2002).

This study found that the mean MCSI increased with the number of children below 7 years old, the number of school-going children and the number of disabled members in the households. Approximately 82.0% of the households in this study had at least one school-going child. As expected, the higher the number of

school-going children, the greater the household expenditures. Needless to say, having school-age children also means more expenditure needed on clothing, footwear, books and pocket money for school needs. Several studies have also reported that the number of children and school-going children increases with the status of food insecurity (Normen *et al.*, 2005; Furness *et al.*, 2004; Zalilah & Khor, 2004).

Demographic and socio-economic characteristics (i.e. number of children, number of school-going children and per capita income) that significantly contributed to household food insecurity in this study were confirmed by the factors contributing to household food insecurity reported by Norhasmah (2010). The major factors that contributed to household food insecurity reported were related to household members (i.e. big household size, many school-going children, family members with disability and illnesses) and poverty (Norhasmah, 2010). Therefore, due to various constraints on resources and large sharing among household members, the consumption of food was limited and this might contribute to the problems related to food insecurity.

There was a significantly decreasing trend in household income and per capita income with regard to severity of food insecurity. The results were supported by several studies, which found that income is an important risk factor for household food insecurity (Bhattacharya *et al.*, 2004; Zalilah & Tham, 2002). Therefore,

inadequate income among poor households could contribute to the inability to provide basic needs, such as enough food for the household members.

In this study, approximately 26.2% of the households had a monthly household income below RM691 (i.e. official poverty line income). Based on the per capita income, approximately 15.5% and 32.0% of the households were considered as hard-core poor and poor, respectively (Ninth Malaysian Plan, 2006). Poverty can indirectly contribute to food insecurity (Misselhorn, 2005) due to the inability to provide adequate basic needs for household members, such as nutritionally adequate diets and safe food, shelter, water, sanitation, clothing and education (Susilowati & Karyadi, 2002). Several studies have also reported that low income household is one of the most important factors affecting food insecurity (Bhattacharya *et al.*, 2004; Furness *et al.*, 2004).

CONCLUSION

Food insecurity is a major public health problem among urban welfare recipient households. Information on the percentage of food insecurity is important for monitoring the progress of efforts to improve food security status in Malaysia. With rapid urbanization and the increase in urban poverty in less developed nations, food insecurity should be seriously addressed by the governments. Urban welfare recipient households, with higher numbers of children below 7 years

old, school-going children, disabled members in the households, income reliance on financial assistance and lower income per capita, were possibly at risk of food insecurity. Hence, urban welfare recipient households with these or other factors contributing to food insecurity should be given priority in intervention programmes that address food insecurity. In addition, the intervention programmes should be designed to address various factors contributing to food insecurity.

IMPLICATIONS AND FUTURE RESEARCH

The analysis of poverty and food insecurity should be directed towards policy implication. The policy implication that can be derived from this study is to revise the amount of financial assistance or food baskets given to the welfare recipient households or low income households due to the high cost of living in urban areas (i.e. increased food, fuel price, rental, etc.). This policy should be addressed through various agencies, such as the Ministry of Rural and Regional Development, the Ministry of Health, as well as the Welfare Department of Malaysia. In addition, the Welfare Department of Malaysia should also revise the basic eligibility (i.e. household income less than RM400/month for hard-core poor households) for financial assistance to ensure food security of poor households (i.e. household income of RM691) (Ninth Malaysia Plan, 2006). This study is also important because it has

significantly contributed to the formulation of nutrition policy, programmes and projects in urban areas.

Most importantly, the theoretical implication of this study provides valuable insights into the demographic and socio-economic characteristics as the contributing factors to household food insecurity. The factors addressed in this study have added to our knowledge of the importance of understanding food insecurity from the perspective of urban welfare recipient households.

Conducting rigorous studies to assess the prevalence, distribution and severity of food insecurity among the welfare recipient households is highly recommended. The Ministry of Rural and Regional Development, in conjunction with the Welfare Department of Malaysia, should perform the necessary screening in order to identify at-risk households of food insecurity among welfare recipient households. This information can be utilized to develop and implement intervention programmes in order to ensure that the Malaysian population is able to obtain adequate or quantity and quality of food required. Moreover, monitoring of the intervention programmes should be performed so as to evaluate their effectiveness.

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The Female Body in Martin Amis' *Money: A Satiric Portrait*

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ABSTRACT

This paper explores Martin Amis' *Money: A Suicide Note* (1984) as a satiric portrait of the commodification of the female body in the market place. The paper argues that Amis is not misogynistic or anti-feminist, as many critics claim, but anti-capitalist. He uses means of satire to criticise sexual exploitation of young women in the world of trade. The discussion seeks to identify the satiric devices employed by Amis to showcase how women are rendered 'interchangeable goods'. It will be shown in this paper that Amis' primary preoccupation in *Money* is pornography, as a very profitable industry and as a source of income in contemporary society. Through mockery and satire, Amis illustrates the negative effects of capitalism on the life of the individual and society at large. The discussion concludes with the significance of Amis' satirical mode of representation, which shows that women are merely victims of a greed-driven business world and society.

Keywords: Capitalism, female body, pornography, satire, sexual exploitation

INTRODUCTION

Almost all critics agree that Amis' *Money* is a critique of the materialistic trend of the 1980s and primarily aims at "unmasking the ideological underpinnings of Thatcherism" (Doan, 1990, p. 79)[1]. Carlos Silva (2004),

for example, notes that *Money* "combines a complex web of postmodern tricks and narrative devices with an accurate depiction of the 1980s and its materialist philosophy of self-development through material success" (p. 88-9). Nick Rennison (2005) further stresses Amis' *Money* as the archetype of the 1980s novel. Rennison points out that John Self, a protagonist, is,

> *willing to sell what remains of his soul, in exchange for receiving all the immediate gratifications that consumer culture offers - excess. Excess is what this culture teasingly*

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[1] Thatcherism is the name given to describe the political, economic and social policy of the British Conservative politician Margaret Thatcher, who was the leader of her party from 1975-1990. See James F. English (2006). *A Concise Companion to British Fiction* (Ed.). USA: Blackwell, p. 210.

offers, if one has the money to pay for it, and excess -whether for booze, drugs, sex or food - is what Self craves (p. 8-9).

On the other hand, many critics consider Amis to be a male author who has devoted his career to expose the vulgarity and the corruption of women. These critics believe that Amis writes from a "distinctly male perspective," drawing on predominantly male literary influences, especially Vladimir Nabokov and Saul Bellow (Parker, 2006, p. 55). He is, in the words of Charles Michener, a "big-cocked novelist" (*cited in* Parker, p. 55). James Diedrick (2004) also asserts that 'masculine compulsion' and 'patriarchal assumptions' inform Amis' works, while Adam Mars-Johns argues that he "defends the sexual status quo" (*cited in* Parker, p. 56). Little attention is paid, however, to the novel as a satirical critique on the objectification of women.

This paper relies on Northrop Frye and Z. Mtumane's definition of satire to argue that Amis is not as much anti-feminist, as he is anti-capitalist. While Frey views satire as a "tone or attitude" (1994, p. 76), Mtumane considers the satiric devices that express the critical attitude as he defines satire as a "verbal or written attack of a subject by the use of exaggeration, irony, sarcasm, [allegory], wit and ridicule for its folly and vice, with the intention of improving or correcting the existing state of affairs" (2001, p. 234).

The Sex Industry: John Self the Allegory

As this discussion will show, Martin Amis' *Money* focuses on the objectification of the female body in the sex trade to depict the monstrous nature of capitalism. Accordingly, pornography is seen as the mainstream industry in contemporary society. John Self, the narrator-protagonist, confirms this sex-money relation when he says, "I don't know how to define pornography—but money is in the picture somewhere. There has to be money involved" (p. 291). In this novel, Amis frequently stresses the sex-money relation to establish the absurdity of the situation where pornography is not merely an art but a highly profitable industry for capitalists. Amis himself says as much in an interview, "it's just a nasty way of making money for all the people who are in it" (*cited in* Tredell, 64). Douglas Kellner (1989) is very much in agreement with Amis' satiric view as he notes that:

> *In contemporary capitalism, areas once separate from exchange and commodification, such as sex, love, and culture, were becoming integrated into the system of exchange, and were increasingly dominated by exchange values and relationships (p. 53).*

Much of Amis' satirical stance on the pornographic atmosphere is delivered through allegory. John Self is made into an allegorical object of scorn; in effect ridiculing the socio-economic forces that

condition Self's consciousness, and which eventually lead him to establish his own enterprise, and invest in the sex industry. The irony is that Self starts to practice this business after absorbing the major trends of the world market and the priorities of 'market forces'; his pornographic project, a film alternatively entitled "*Good Money* and *Bad Money"*, which he intends to produce in collaboration with Fielding, is nothing less than an aggressive description of the nature of capitalists. Amis seems to be saying here that if you have money you can dominate and exploit women, and if you want more money, you can invest in pornography. Nowhere is this ironic 'truth' more obviously evident than in Self's description of Butch, an actress in his upcoming film. "She looks like a million dollars but she's also a very intelligent and sensitive young woman. I think she's got a great future in our industry" (p. 54). Harsh as it may sound, Self's comments vividly describe the materialistic view of the female body within the world of finance. It must also be noted that the use of the word 'industry' shows that pornography is an organised, manufactured product, and not merely a sub-cultural business.

Amis' bitter grotesque is honed further through the use of exaggeration, which shows the excessive ugliness of this situation, in which pornography is not only ubiquitous, but also shapes minds. This is why Amis (the character) and Self have "pretty much agreed that the twentieth century is an ironic age" (p. 231). That is evident in the characterisation of John Self,

the narrator-protagonist who justifies the states of his consumption of pornography:

> *Can pornography now shape the clouds and hold all sway in the middle air? Wait…the rose, the mouth, the glint. Come on, if that is what it looked like then that is what it looked like. I am probably not alone in supposing that I am shaped by how I see things (p. 231).*

Obviously, Amis grotesquely depicts what Paola Monzini refers to as "the global boom in commercial sex" (2005, p. 24). John Self, the narrator protagonist admits his pornographic habits and blames the socio-economic atmosphere that has turned him into a pornographic addict. Pornography is seen as an essential aspect of contemporary society, and he, as a product of this society, is very much shaped by this, "…pornography is habit-forming, you know. Oh, yes it is. I am a pornography addict, for instance, with a three-mag-a-week and at-least-one-movie habit to sustain" (p. 44). Hence, through Self's overstatement and characterisation, society is shown to be akin to a prostitute, whose life is dominated by sex and money. Amis uses his narrator-protagonist as an allegory of Everyman to illustrate how individuals fall victims to the 'big money conspiracy'. In Self's admissions that he is being controlled by forces bigger than himself: "I sometimes think I am controlled by someone. Some space invader is invading my inner space, some fucking joker. But he's not from out there. He's from in here"

(p. 305)—Amis reveals the manipulation of society by hidden forces, which drive it towards a certain situation or behaviour. Ultimately, Self realises that the big "space invader" (p. 305) in his life is no more than his 'moneyman', Mr. Goodney Fielding, making Self the victim of a widespread conspiracy manipulated by the primary symbol of capitalism in the novel.

Basically, Amis' locus is to ridicule, in Doan's words, "the dominant (patriarchal/ capitalist) ideology", or to "undermine that ideology" (1990, p. 69). His intention, in other words, is to mock and expose the ugliness of 'the human flesh markets' where women are turned into merely "interchangeable goods" (Monzini, 2005, p. 3). Sex in general and women in particular, are important sources of profit-making in late capitalist society. Women are hired in night clubs, modelling agencies and advertising companies as a way of obtaining extra 'surplus value'.[2] That is to say, while such institutions get a lot of money by selling 'female bodies', these girls only receive paltry wages in relation to the amount of work they do.

> *True, the chicks on the ramp provided some variety. None of them wore any pants. At first I assumed that they got paid a lot more for this. Looking at the state of the place, though, and the state of the chicks, I ended up deciding that they got paid a lot less (p. 29).*

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[2] 'Surplus value' is a term coined by Karl Marx to refer to the excess of the value of the product over the value of the wages which are paid to the workers. See John A. Hughes *et al.* (2003). *Understanding Classical Sociology: Marx, Weber, Durkheim*. London: Sage.

In another context, Self obtains extra information about the exploitation of these girls: "the deal being as follows: the punter pays the agency…15 per date, of which the chick gets two. That's right: two quid…So naturally the girls do a bit of business on their own account" (p. 153). The need for money forces them to sell their bodies, but the real benefit is that of the employer, and not themselves.

> *I saw her performing flesh in a fantastic eddies and convulsions, [...], so rich in pornography, that she does all this not for passion, not for comfort, for less for love, the proof that she does all this for money (p. 39).*

Amis' use of taboo words and expressions heaps further humiliation on the subject and reflects the ugliness of the situation, a scorn expressed through words such as 'pornography', 'booze' and 'erotic'. These words are used by Amis to mock all parties involved in the pornographic industry. In the absurd scene where girls are auditioned for the film, the skills being looked for are not related to something useful, but the girls' ability to expose their bodies. "We would like to have you take your clothes off please" (p. 184). These expressions, as well as the situation as a whole, exhibit the vulgarity of the entire pornographic industry that misused and abused women. Hence, John Self as the embodiment of market ideology is used by Amis to indirectly mock the greediness of capitalists who instead of producing

something beneficial for humanity, invests rather in female body to get extra profits.

Thus, Amis carefully employed his major characters, such as using Fielding as an allegory of a capitalist and John Self as Everyman to unpack the impact of capitalism upon society; in doing so, Amis suggests that all members of society are the victims of such hidden forces. Amis' ridicule lies in the idea that while capitalists pretend to work for the welfare of the society, they in fact use their power to mislead and exploit the masses, with the commodification of women being a case in point. Perhaps, this is what leads Amis to question the meaning of the so-called contemporary civilisation and development as his narrator-protagonist asks: "Is this success? Is this money? Is this promotion?" (p. 300). While he mocks the sanctity of the civilisation project of the 20th century through these questions, he is, at the same time, skilfully involving the reader, by casting doubts on social phenomena that are usually taken as a given. What Amis is doing is not seeking answers from the reader, but rather motivating him to think and react against such a situation. He seems to call for a moral revolution against social injustice in general and the commodification of the female body in particular.

Freedom of Exploitation: Amis' Militant Irony

The overtly blunt use of taboo expressions notwithstanding, Amis' critical stance is largely delivered through irony. He employs dramatic irony to ridicule his characters, who are representative of a distinctly 20th-century phenomenon. Dramatic irony—in this case, allied with the usage of the grotesque, which is used to show the absurdity of the situation and the vulgarity of capitalists, as in the following scene:

> *The first candidate came flouncing across the floor. She was a big dark honey …Anyway, after a while, during that sun-bleached, snowblind vigil of booze and lies and pornography…The routine was the same, and Fielding had them in and out of that door like a chainline vaccinator. It's a time-honoured custom in our industry, the easy going atmosphere you try to create while auditioning young women for roles of an erotic nature (p. 184).*

While the situation provokes scorn and indignation towards the pornographic industry and all the people involved in it; it is Self that appears to be the target of ridicule. While he is supposed to exploit and misuse these girls, he later realises that he himself has been exploited and misused by other capitalists. The irony thus lies in the character of Self, who is painfully unaware of his own reality, of the plan being woven by Goodney, which is to lead him to failure, not success. This affirms what John Peck and Martin Coyle state on the use of irony in the novel form, "irony is often used to reveal the inadequacy of the characters' view or grasp of events" (1993, p. 149).

What is at stake here is that Amis makes use of irony to clearly illustrate how late

capitalism has created this pornographic atmosphere, in its practitioners' quest for more profits and wealth. Self, the "embodiment of the market ideology" (Edmondson, 2001, p. 148), expresses the age succinctly when he states:

> *So now I stand in the porno emporium, on the lookout for clues. I flick through the wax-smelling gloss of a cassette brochure…Oh, world, oh money. I suppose there must be people who want all this. I suppose there must be people who like all this. Supply and demand, market forces (p. 299).*

John Self, the deluded narrator-protagonist appears too ridiculous as he sees and speaks of the world of money through the gate of pornography even though his film project does not exist yet. Mockingly, he admits that he has chosen the right project, built on 'market logic' and 'supply and demand'. Ironically enough, however, the overstatement above signifies the widespread 'sex trade' business in 1980s, where, according to Amis, sex in general and the female body in particular became a highly profitable industry, given that Self's frequent reference to pornography as an 'industry' implies that it is a systematic and profitable business, rather than a subcultural fetish. The social atmosphere motivates and encourages investment in this 'nasty business'. It could be argued then that Amis' satire is, actually, directed towards the capitalist system that created such socio-economic conditions. Like any investor, Self is well aware of the situation, and very much falls under market forces, 'supply and demand'.

Irony as the dominant weapon of Amis' arsenal to deliver his satire primarily functions to illustrate what can be referred to as the freedom of exploitation. That is to say, Amis ironically exposes how capitalists hide their exploitation under the mask of false promises such as success and promotion. Girls are truly misled by companies and agencies that totally humiliate and misuse them under the pretence of making them famous 'stars. As Paola Monzini (2005) notes, the growing commercialisation of sex is a characteristic of "capitalist society which created an island of 'sexual freedom' within a social landscape otherwise tightly controlled and regulated" (p. 21). Through his sharp ironical view, Amis depicts how those girls freely and blindly offer themselves and their bodies for investment, believing in fame and wealth. John Self clearly expresses this view when he comments:

> *We sat them down and gave them a drink and asked the usual stuff. They didn't need promoting: you see, they really did think it was possible, likely, certain that money and fame had fingered them, that exceptionality had singled them out (p. 184).*

Ironically, however, this 'exceptionality' is also exactly what Self believes in. He

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imagines himself to be a powerful player who manipulates other people for his personal satisfaction. While he laughs at the girls, however, he himself appears ridiculous as he thinks that his intended project will bring him more money and fame. Like the girls, the ignorant protagonist finds himself trapped in a web of conspiracy, manipulation and betrayal of which he is the final target. As Edmondson (2001) notes "[t]hat Self has been debased and then used and humiliated by the symbol of his own ideology is a masterful irony" (p. 152). What is at stake is that such conceited notions go beyond increasing contempt and scorn for him or the girls, and are an indictment of society at large: Self and the girls are merely victims of capitalist ideology.

The absurdity of the situation is further ridiculed through the character of Vron, the wife of Self's stepfather. Using Vron as a caricature, Amis bitterly mocks such groundless belief in fame and popularity. In a disgusting manner, for instance, Vron explains to her stepson, in tears, how proud she is of herself being included in a book where her naked body is on display; "Vron had… [shown] her prospective stepson photographs of herself having a handjob with no clothes … at throaty length and with hot tears…she has been creative" (p. 166). Obviously, it is the idea of creativity instilled in her mind that motivates her to expose herself publicly in search for fame: "I was always creative John, she said again and again" (p. 166). In this way, Vron appears very ridiculous to the reader as she imagines herself to be an artist, with her insistence on her own creativity showing the paradoxical nature of her character. This paradox, however, renders her a subject of contempt and scorn. What Amis seems to be suggesting here is that such a paradox is created by ideology; in other words, Amis' attack is not directed at Vron per se, but the society, particularly towards the economic system, that created someone like her. Vron's illusions are the result of the "market forces" (p. 71) that dominated and misled people's minds during the 1980s. Like Self, Vron is also completely deluded by the atmosphere that surrounds her, showcased by Amis through his use of dramatic irony:

> 'You see John…if you have…the creative gift, John, then I think you've got to- to give of your gift, John. John.' Look at this. She turned the page. Here Vron reclined on a kittenish white carpet, one leg…one hand busy in the central…'You see how much I'm giving there, John? That's what Rod kept saying to me, the photographer, John. He kept saying: 'Give, Vron, give!' (p. 167).

Vron as Amis' target of poignant and indignation is created in such a way as to evoke the feeling of contempt and disgust towards the existing social affairs. Even though the situation may provoke laughter, being so confident of her creativity, it is meant to shock and humiliate. Amis intentionally and fully exposes the dullness and stupidity of the 'so-called creative stars'. He, in other words, mockingly

draws our attention to the fact that this is no more than abuse but not an art. Amis reserves similar contempt and scorn for the socio-economic system that facilitates the exploitation of women and has reduced them to mere commodities. Vron's photographer and instructor then becomes a symbol for the companies and agencies that financially exploit women bodies to get extra profits, as evident in the way he aggressively motivates Vron to show off more of her body. The use of words such as 'gift' and 'give' suggests that Vron is giving herself over freely to the market audience, with the only motivation in her mind being the promise of being a star.

Ironically, Amis seems to question how much art is really involved in such a situation, and what exactly constitutes a star, and the answer, we find, is proffered in the text: the 20th century is "an ironic age" (p. 231). This is actually an indicator of the moral degeneration of contemporary society, and the changing values in such a society, where corruption is called fame, and exploitation is called freedom. Amis appears to imply that put together, the promise of fame, fortune and freedom, are tantamount to a 'freedom of exploitation'. This is perhaps what leads Amis to question the reality of the situation, when the narrator-protagonist ironically comments, "What's this state, seeing the difference between good and bad and choosing bad—okaying bad? (p. 29).

Supply and Demand: The Cheapness of Chicks

Other than by applying satire through irony and allegory to criticize the commodification of women, Amis makes use of other devices, what Robert Harris (1990) refers to as "the list" such as simile and metaphor. These literary devices are particularly utilised to portray and ridicule the valuelessness of women in the market place. Indeed, a very significant satirical view that sums up the whole of Amis' argument on the value of women is delivered through the use of simile. As the 'money expert', Frank advises Self, "You just take women and use them. Then you toss them aside like a salad" (p. 112). Obviously, Frank does not consider women as subjects capable of entering into a contract, but rather as objects or commodities to be bought and sold for a specified time (Monzini, 2005). More importantly, the simile above shows that a woman is not only a commodity, but a very cheap one, with the insignificance and cheapness further indicated through the use of words like 'use' and 'toss'. These words would also imply the high supply of such commodities on the market, since the more available a commodity, the cheaper it becomes. This is indeed what Amis seems to suggest. Amis' sharp razor is thus directed to the socio-economic system that makes such a commodity too common in the market place to keep its value at a minimum. Another example which further illustrates the exploitation and the devaluation of women is presented through the character of Selina who according to Self, works "like a dog at Helle's boutique. Only Helle's boutique isn't just a clothes shop: it's a sex shop too" (p. 250). This analogy shows that Selina has lost her humanity and is reduced to a mere dog that works on

demand. Furthermore, Selina's devaluation through the use of the simile above reveals her exploitation as a worker. By comparing her to a 'dog', Amis bitterly attacks the sex trade in which a woman is completely mistreated, objectified and devalued, all of which are the result of the exploitation of women in the world of business.

But although Amis seems to criticise women for responding negatively to the situation, and offering themselves for investment at such a low price, the virulence of Amis' message is largely reserved for the society that creates this situation, particularly to those who have shown no respect for mankind by investing in such a 'nasty' business. The very fact that Self receives advice to 'invest' in a female body from a money expert depicts the extent to which such an industry has become common in the world of trade. Amis' view is further stressed when Self is rendered sympathetic with the plight of these women, blaming society for exploiting them; "These working-class women, they're like a sheep trail. It obviously takes it out of you, being working-class. There is a lot of wear and tear involved. And pubs can't help" (p. 139). Self's comments show that the women involved in pornography are just as susceptible to exploitation as other workers, with the cheapness, oppression and humiliation of their profession implied through the aforementioned simile, where they are equated to animals. Amis' depiction of the suffering of women is projected through the sharp contrast between appearance and

reality: the women who entertain the public are themselves the tortured ones, stripped off their humanity and used like animals and objects that have neither human value nor sentience. Feinberg (1967, p. 3) notes that "the essence of satire is revelation of the contrast between reality and pretence". As a satirist, Amis carefully utilised this contrast to highlight a significant issue pertaining to the mistreatment of young women in contemporary social system.

The following extract further elaborates Amis' use of figures of speech to attack the socio-economic system that encourages the sexual exploitation of women; "You know how it is with the street women in hot cities, in concrete jungles. It's not that the weather brings them out. It's just that the weather takes most of their clothes off" (p. 299). Two important figures of speech are used here, a metaphor and personification, through the words "jungle" and "weather". While the metaphor stresses the difficulty of city life for women, the personification explains the way in which that life is difficult. With "concrete jungle", Amis depicts how ferocious city life can be for women, suggesting the presence of primal instinct and primal fear. In other words, this suggests that the city is not a safe place, but is rather a habitat of ferocious and wild animals — with the wild animals being the capitalists, the exploiters. Furthermore, the personification also shows that women are unwilling subjects in the wild jungle. The weather here can stand for the social atmosphere which compels women to sell their bodies. Such an analogy vividly

describes the huge influence of the social system on individuals and society. Amis purposefully exaggerates the situation and carefully interweaves the two figures of speech to suggest that the social atmosphere has created a 'jungle' in which women very much fall prey to wild animals. A view that is further emphasised through Self, who admits towards the end of *Money* that the sex trade is nothing but a money conspiracy; it is a "psychotic industry…Not even an industry—a conspiracy, a money conspiracy" (p. 316).

Distortion is another literary technique employed by Amis to criticise his society. This literary device is read as parallel to exaggeration in which the author changes his perspective on certain matters by isolating an ordinary surrounding or by "stressing some aspects and de-emphasizing others" (Harris, 1990). The distortion is mostly done by Amis through the description of a sexually-oriented society. The narrator-protagonist, for example, mockingly remarks on the scarcity of food in the street: "This restaurant serves no drink, this one serves no meat, this one serves no heterosexuals. You can get your chimp shampooed, you can get your dick tattooed, twenty-four hours, but can you get lunch?" (p. 158). Hence, Amis intentionally "distorts" and "magnifies the bad" qualities of his society in order to "make isolated instances seem typical" (Feinberg, 1967, p. 90). He employs distortion, in other words, to ridicule a society built around perversion—which, paradoxically, supplants essential human needs, evident in the use of a rhetorical question which highlights the stark nature of the situation. Implicitly, Amis is attacking the greedy capitalist system which has created such an atmosphere in the first place, as a result of market forces.

CONCLUSION

As Gilbert Highet notes, satire functions to "wound[s] and destroy individuals and groups in order to benefit society as a whole" (1962, p. 26). That is to say, the significance of satire lies in its essence, the exposure of the contrast between reality and pretence (Feinberg, 1967). With these views in mind, it may be argued that Amis' satire is intended to correct female sexual exploitation in late capitalist society, at least by making the reader aware of the existence of this element, by shocking him or her into reaction. Using the means of satire, Amis vividly depicts the widespread domination and exploitation of women. What is important to note is that Amis uses satire as a platform to clearly illustrate the absurdity of the current social affairs. He aims to create awareness among individuals of the dangerous consequences of the free market economy, where money becomes the god that everybody worships, and where women are reduced to cheap objects. What makes Amis' satire more subtle and interesting is the use of devices such as allegory, irony, exaggeration and distortion. These elements are properly employed to create a vivid satiric portrait of the existing social affairs.

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Blogging in Enhancing Teaching and Learning of Science: A Qualitative Case Study

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ABSTRACT

This article examines the online experiences of a group of Science teachers from five Smart Schools who shared their teaching practices via blogs. The study was undertaken to explore the effectiveness of this technology in improving teaching practices and promoting a community of practice. Data were elicited via blog postings of what the teachers' perceived as best lessons and comments and feedback posted by their team members. These postings were supported with data from a focus group interview. The findings revealed that blogging had to a large extent led teachers to share principles of teaching and practice but only partially succeeded in promoting collaborative efforts among the teachers as evinced by the lukewarm postings and feedback. On the whole, the teachers exhibited concerns related to their awareness, readiness and competency in embracing the changes expected of them.

Keywords: Blogging, teaching and learning, teaching practices, professional development, Smart schools

INTRODUCTION

The advancement of technology can help build a community of practice which shares knowledge and experiences in a collaborative way. Teachers need to take advantage of such innovations in their practices to make continuous progress to facilitate students' learning. However, there seems to be a lack of support to help teachers move in that direction. As pointed out by the National Research Council (2007), teachers need appropriate modern tools to take advantage of online programmes and it is inaccurate to assume

that teachers have the necessary computer skills and equipment to be able to embrace online technology entirely on their own. In line with this, a group of researchers from three universities, the National University of Malaysia (UKM), University of Nottingham (UK) and University of Sabah (Malaysia) undertook a project based on a partnership model for online professional development to support the professional development of a group of Science teachers from five Malaysian Smart Schools through online means and to promote the use of ICT in their teaching practices. The model used is known as CPDelT: Model 2020, which is loosely based on the successful UK-based *Improving the Quality of Education for All* (IQEA) project (Hopkins *et al.,* 1996). IQEA was initially set up by a team of researchers at the University of Cambridge Institute Of Education in the early 1990s. The overall aim of the university-based project was to "produce and evaluate a model of school development and a program of support that strengthens a school's ability to provide quality education for all its pupils building on existing good practice" (Ainscow *et al.*, 1994, p. 5). The eCPDelt (e-Continuous Professional Development for English language teaching) project is closely aligned with the Malaysian Ministry of Education's desire to maximise the utilisation of Information Communication Technology (ICT) in schools (Ministry of Education Malaysia, 1997) and also the goals of Vision 2020, which seek to equip the workforce with essential skills to access knowledge and information and to position

Malaysia as a competitive knowledge-based economy (more information about this project can be found in Thang *et al.*, 2010).

This article shares the findings from the blog discussions of a group of teachers teaching Science from five different Smart Schools. This involved the sharing of effective teaching practices among the teachers by reflecting and sharing their best lessons through their blogs and responding to comments posted by other team members in the discussion online. Data from these postings were supported with a focus group interview.

REVIEW OF RELATED STUDIES

This section reviews the related literature on the Science curriculum, the principles in teaching and learning Science, and the integration of ICT in teaching Science.

Science curriculum and relevant principles in teaching and learning Science

Before looking at studies on how blogs can be a tool in enhancing teaching and learning of Science, it is important to understand some important elements of the Science curriculum. Science education for secondary schools in Malaysia has been designed to provide students with knowledge and skills in Science to develop thinking skills, and strategies to enable them to solve problems and make decisions in everyday life (Ministry of Education Malaysia, 2002). It aims to produce Malaysian citizens who are scientifically and technologically literate, competent in scientific skills,

possess good moral values, are capable of coping with the changes arising from scientific and technological advances, and able to manage nature with wisdom and responsibility for the betterment of mankind (Sharifah Maimunah Syed Zin, 2003).

Employing different ways to present and teach Science and Mathematics is a continuing professional concern. Effandi Zakaria and Zanaton Iksan (2007) urge Malaysian teachers to move away from the traditional approaches in presenting their lessons and to embrace teaching strategies that are more students-centred, such as co-operative learning where students are actively involved in sharing ideas and working co-operatively to complete interactive tasks.

Likewise, Project 2061 (American Association for the Advancement of Science, 1990), Science for All Americans, shares similar sentiments about the need to place greater emphasis on "what students should learn", and how Science ought to be taught. Drawing from "a growing body of research knowledge about the nature of learning and on craft knowledge about teaching that has stood the test of time" (*see* http://www.project2061.org/publications/sfaa/online/chap13.htm), Project 2061 came up with a number of useful principles as guidelines for good Science teaching. Since these principles are universal in nature and relevant to the teaching and learning of Science in Malaysia, it was adopted as heuristics to explicate the practices of Science teaching and learning evident in this study. Fig.1 provides a schematic overview of the principles adapted from Project 2061 used in this study.
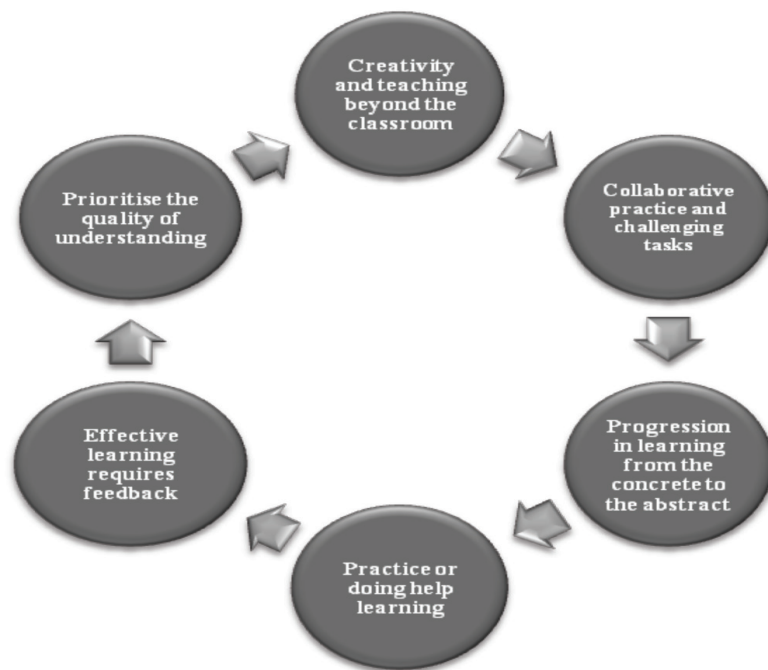

Fig.1: Principles of teaching and learning

1. Progression in Learning from the Concrete to the Abstract
This principle stresses the importance of allowing learners to first learn with concrete examples before progressing to learn more abstract concepts. For example, young learners learn more readily about things that are tangible and directly accessible via their senses—visual, auditory, tactile and kinaesthetic compared to say learning to understand abstract concepts, manipulate symbols, reason logically and make generalisations.

2. Practice or Doing Helps Learning
This principle emphasises that learners should be permitted and encouraged to think critically, analyse information, communicate scientific ideas, make logical arguments, work as part of a team and acquire other desirable skills in many contexts in order to learn.

3. Effective Learning Requires Feedback
For effective learning to take place, learners should be provided with the opportunities to express ideas and obtain feedback from their peers. Besides the provision of feedback, learners should be given enough time to reflect on the feedback they receive, make adjustments and try again.

4. Prioritise the Quality of Understanding
This principle highlights the importance of parsimony in setting out educational goals, that is, prioritising the most important concepts and skills to emphasise and concentrate on. In other words, teachers need to prioritise the quality of understanding rather than quantity of information presented.

5. Creativity and Teaching Beyond the Classroom
This principle of learning stresses the importance of leveraging on learners' past learning experiences. This principle believes that learners actually construct their own meaning regardless of how explicitly teachers or books may attempt to explain things. It argues that concepts are best learned when they are encountered in a variety of contexts and expressed in a variety of ways as this enables more opportunities for the concepts to be embedded in the students' knowledge system.

6. Collaborative Practice and Challenging Tasks
This principle emphasizes on the importance of teachers providing their learners with challenging but attainable learning tasks in groups. It also stresses that learners are quick to pick up the expectations of success or failure that others have for them and argues that the positive and negative expectations shown by parents, peers and the news media affect students' expectations and their learning behaviour.

ICT and the Teaching of Science

The rapid proliferation of Information and Communication Technologies (ICT) in today's world has brought about massive changes in education and school systems. Teachers cannot ignore this tide of change. The Internet is one easily available online source for the teachers to use. It provides an enormous amount of useful and interesting information that teachers can use to complement their classroom teaching. Besides that, the Internet can be used as a social platform for teachers to share their practices.

The blog is one of the most easy-to-use tools for the purpose of social interaction. It has a simple interface and can hence be operated even by those with very basic computer skills. Research has found blog discussions to be effective in encouraging reflective learning (Liaw *et al*., 2008; Chen *et al.,* 2005), and promoting the shift from surface to deep learning (Bartlett-Bragg, 2003). Ferdig and Trammel (*in* Williams & Jacobs, 2004) further reiterate that the immediacy and commentary-based systems of blogging lead to the reflection and analysis and contextualisation of learning via hyperlinks. They further contend that blogs are more successful in promoting conversational interactivity as opposed to other forms of online discussions. In fact, blogs can serve as a platform for the development of communities (Yang, 2009).

From a teaching and learning perspective, blog discussions have been proven to have the potential to significantly alter teachers' perceptions of themselves as education professionals and their perceptions of the power and validity of their ideas by allowing them to respond more creatively (Oravec, 2003) and to interact with the participants beyond the classroom context (Baim, 2004). A local research study by Malachi (2006) on trainee teachers' writing of blogs revealed that blogging helped them in their professional development and the analysis of the blogs showed positive reflections of their practices. However, there seems to be a dearth in the literature with regard to the potential and possible roles of blogs in the professional development of Science teachers in the Malaysian context. This study hopes to address this concern.

THEORETICAL FRAMEWORK

This study is premised on the theory that teachers' personal worlds (reflective and meaning focused), as well as the shared world (collaborative and knowledge focused), if associated with a purposeful and structured educational environment, could provide a worthwhile learning experience (Garrison *et al*., 2000) for their professional development. The idea of building an online community through blogging is based on the constructivist theory of learning, which emphasizes on a social or a situated process of learning and personal construction of knowledge, including modelling, coaching, scaffolding, articulation, reflection, and exploration (Loving *et al.,* 2007). According to Oravec (2003), blogging can be usefully exploited to build a 'community diary' around a large project in which a group of learners can establish and maintain thoughts

and share their insights; this is in line with the ultimate goal of the project which is to develop a dynamic community of practice. According to Lave and Wenger (1991), a community of practice is posited as a social theory of learning. Based on this perspective, learning is conceived as the generation and transmission of tacit knowledge through the sharing of experiences that is mainly done through narratives and informal communications (Lave & Wenger, 1991; Wenger, 1998, 2000). Rovai (2000) further adds that a learning community is a group of autonomous, independent individuals who are drawn together by shared values, goals, and interests and committed to knowledge construction through intensive dialogues, interaction and collaboration.

The concept of community of learners originated from a democratic, student-centred, inquiry-based philosophical perspective grounded in the works of Dewey (1933), Vygotsky (1978) and Bruner (*as cited in* Mintrop, 2001). Vygotsky's work on knowledge construction through social interactions in situated and meaningful sociocultural contexts is especially relevant to building learning communities in which participants engage in critical thinking under the scaffolding provided through peer interactions and from the instructor (Bonk *et al*., 1998; Vygotsky, 1978).

The project hopes that the utilisation of blog as a 'community diary' (Oravec, 2003) will enable the teachers to share common interest and exchange information, which will eventually lead to the building of social and organisational level knowledge. This is

the long-term goal of this project. However, this study will limit itself to looking for evidence of sharing of common interest and exchange of information which has a potential in enhancing teaching and learning among the teachers. In investigating this, the principles of teaching and learning (as illustrated in Fig.1) were used as heuristics for data analysis.

RESEARCH QUESTIONS

Thus, the current study was conducted to investigate the following research questions:

1. To what extent did the blog activities lead to the sharing of principles of teaching and learning among the teachers?

2. What were the challenges faced in using blogs for teacher professional development?

METHODOLOGY

There were several stages in this research project. It commenced with a 'Show and Tell' session on 16 September 2008 at two different schools; one in Kuala Lumpur and one in Putrajaya. Twenty teachers of three different disciplines, namely, English, Science and Mathematics, were involved. There were six English teachers, nine Science teachers and five Mathematics teachers from five different schools in Kuala Lumpur, Putrajaya and Petaling Jaya. These sessions were aimed to introduce members of the project team to all teacher volunteers in a friendly and informal way. The teachers were briefed on the aims

and the objectives of the research project and also informed about the forthcoming training workshops and online journal activities. The teachers were introduced and encouraged to experiment with blogs as many said they had never tried blogging or other related online activities before.

In November 2008, the teachers were invited to a workshop where they were taught how to commence a blog, post entries into their post and respond to others' blogs. The teachers were given two tasks during this workshop. Task one required the teachers to reflect on a lesson conducted by them, which was considered good, whereas task two was reflecting on a lesson they considered as bad (*see* Appendix A). These teachers had to share both lessons with other teachers via a blogging activity. Technical assistance was provided via email and telephone conversations throughout this activity by the mentors from the research team that had been assigned to them. The description that follows focuses only on Science teachers as they were the group under investigation in this study.

Nonetheless, the participation from the Science teachers was rather dismal despite numerous reminders via email and text messages. Only six teachers posted their blogs by the end of February 2009, and no comment was posted by the teachers on the blogs. In view of that, a focus group interview was conducted to look into the cause of the lack of participation (see Appendix B for the questions asked during the interview). The interviews with four teachers were audio-taped and transcribed to be analysed.

After the focus group discussions, there was a marked increase in online blog activities compared to only four postings previously and the comments sent in by members were indeed encouraging. The moderators played their part by giving their comments and feedback on the blogs entries posted by the teachers. These blog entries were then thematically analysed according to the principles of teaching and learning Science, as reflected in Fig.1. Similarly, data from the interview were thematically analysed.

TABLE 1
Teachers' Profile

School	Teacher	Gender	Forms taught	Subjects taught	Teaching Experience
A	T1	Female	4, 5	Chemistry	28 years
	T2	Female	4, 5	Physics	11 years
B	T3	Female	2, 5	Science	6 months
C	T4	Female	6	Biology	10 years
	T5	Female	4	Biology	5 years
D	T6	Female	1, 2	Science, Mathematics	2 years
	T7	Female	1, 4	Biology, Science	4 months
E	T8	Female	3, 4, 5	Chemistry	14 years
	T9	Female	1, 4, 5	Science	6 years

PARTICIPANTS

Nine Science teachers, who were involved in the research project, took part as subjects in the current study. Table 1 provides the participants'/teachers' profile.

DATA ANALYSIS

Postings of the teachers' blog were sorted into five categories and analysed together with the supplementary data from the focus group interview. The six categories were adapted from the Project 2061 (American Association for the Advancement of Science, 1990) framework for quality teaching and learning practices on teachers' blogs. As Project 2061 framework was designed for American teachers, it was therefore modified to suit the Malaysian context as the principles are related to the teaching and learning of Science. The categories used are listed below:

1. Progression in learning from the concrete to the abstract

2. Practice of doing helps learning

3. Effective learning requires feedback

4. Collaborative practice

5. Creativity and teaching beyond the classroom

The collected data were organised into these categories and analysed accordingly. The purpose of this analysis was to find out the extent to which the sharing among the teachers could be fit into the above categories, as illustrated in Fig.1.

RESULTS FROM THE BLOG ENTRIES

Progression in Learning from the Concrete to the Abstract

Excerpt 1 shows the teachers sharing instances where they engaged their students in meaningful activities that would introduce them to concepts in a way that the students could easily understand and digest, and thus moving learning from concrete to abstract. For example, Teacher 6 taught pressure and surface area by getting the students to build parachutes. Teacher 4 used diagram, videos, pictures, and animation that are presented using technology to help her students understand progress more clearly. Teacher 2 taught the concept of radiation by using information from the Internet to show the tug-of-war in the nucleus between the proton and neutrons.

Practice of Doing Helps Learning

Excerpt 2 shows the manner in which Teacher 5 shared how she had helped her students to understand the functions of the eyes by getting her students to dissect a cow's eye in groups following a video presentation.

Effective Learning Requires Feedback

There was no evidence of teachers sharing how to give feedback to their students. However, there was clear evidence of feedback given by the teachers to support each other, as indicated in Excerpt 3. Teachers 3 and 4 praised the teachers who had posted useful ideas. Teacher 1 went

EXCERPT 1

Occurrences of Progression in Learning from the Concrete to the Abstract

> *The most interesting topic Force and Motions (Relationship between Pressure and Surface Area). In this topic, students learned how to relate the pressure and surface area by doing a meaningful activity like build the parachute. In this activity … they can use their ideas involving concepts that they was learned before….*
>
> *In this lesson, they observed … how the concepts were working.*
>
> *I always ask students to apply the concepts by doing simple activities and relate to their life.*
>
> *The interactive modules also help my lesson in my class. By using this module, especially the simulation, it will give my students more understanding.*
>
> *Teacher 6*
>
> *… i'll make sure that my lesson is as simple … i'll explain by using simple english to make sure they can understand. With the help of technology i will show them all the diagram, videos, pictures, animation and etc so that they could see the process clearly….*
>
> *Teacher 4*
>
> *In most text books or reference books, the explanation for radioactive decay is: caused by its unstable nucleus…. What actually causes a nucleus to be unstable is not explained in these books.*
>
> *In my lesson, I served the internet to get information about why a nucleus is unstable before it emits radiation. Then, the information is presented using PowerPoint.*
>
> *It is actually caused by the attractive force and repulsive force acted on the protons and neutrons in a nucleus. These 2 forces reveal a tug-of-war in the nucleus. When the term tug-of-war is used, 'wows and ohs' are heard which means the students understood and they found it interesting – something which they can't get from books.*
>
> *Teacher 2*

further in giving a counter suggestion to further enhance the lesson by presenting their mind maps via powerpoint presentation.

Collaborative Practice

The blog postings in Excerpt 4 show the teachers sharing ways to initiate collaboration among the students in their classes. For instance, Teacher 4 explained how she had tried to introduce self-access learning and project-based learning by getting her students to work in small groups. She took gender, race and academic achievements into consideration when dividing them into groups.

EXCERPT 2

Examples of how practice of doing can help learning

> *Sense of Sight and light. I stressed on the structure of an eye. It is an experiment on observing the structure and function of the human eye.*
>
> *The experiment that i did with them is dissection of cow's eye. With the help of technology i manage to download the video from this website and i asked my student to carry out this experiment in class. Basically we carry out this experiment with the help of the video that i have downloaded before to make sure they know what they are doing.*
>
> *What i did is, i divide my students into 6 groups and ask them to bring a cow's eye for each group. Then they will follow the video that i have downloaded as i show it on the screen by using LCD projector. I will paused and play as they did the disection to make sure they are on the correct path.*
>
> *This was different than other lesson because they have an experience to see the real structure of an eyeball. Humans eyeballs have the same structure as the cows eyeball. So in order to understand the real structure in theoretically they get to feel and see by themselves. This will improved the level of understanding of my students. The reason this lesson successful is because of they get the experienced to see the structure of an eye and relate it with the functions for each part of an eye.*
>
> *From here, i learned that my students needs a hands on approach with the help of ICT approach to make them understand a certain topics better. This will also make my lesson more interesting.*
>
> *Teacher 5*

Creativity and Teaching Beyond the classroom

Teachers also shared creative methods they used in their teaching. As illustrated in Excerpt 5, Teacher 4 used creative tools like diagrams, mind maps and interactive courseware, whereas Teacher 1 exchanged roles with her students and that resulted in students giving very creative powerpoint lessons. She also related stories to liven up a class of bored students.

Teachers also provided examples of how they had gone beyond the classroom to motivate their students. Excerpt 6 shows how Teacher 9 taught the "Balance of Nature" by bringing her class of students outside to look for insects, identify and witness the insect that made up the food web.

Having presented the findings derived from inductive analysis of blog entries, the subsequent section present findings that were derived from the focus group interview using the same procedures employed in analysing the blog data.

EXCERPT 3

Examples of feedback that can help effective learning

> *It is interesting. Your suggestion to do the simulation (the force of tug-of war) interesting too. I can use the idea to teach my students.*
>
> *Congratulations! You succeeded to teach your students very well.*
>
> <div align="right">*Teacher 4*</div>
>
> *it was an interesting lesson to have students involved in a hands on experience! and of course with the assistance of the technology, it can help us to explain complex things to students even clearer. I bet that your students find this experiment to be the most enjoyful class and hopefully it will help them remember well too :)*
>
> <div align="right">*Moderator's comments to Teacher 5*</div>
>
> *T2's methods of teaching benefits the weak students but we can also let the students come up with their own mind mapping at the end of the lesson and let them show and explain it to the class.My students came up with interesting power point presentation and every group was eager to present their powerpoint.*
>
> <div align="right">*Teacher 1*</div>

RESULTS FROM THE INTERVIEW DATA

Principles of Teaching and Learning

There was only limited evidence of teachers sharing ideas they have used to enhance their teaching and learning in the interview data. However, there is a striking example on the use of creativity in teaching and learning. Teacher 5 brought up the example of using a certain Biology book that could help weak students in Biology. She went on to explain:

> *There's one Biology book which is a comic book…has topics on digestion etc. That will interest them. So may be ask them to create comic story. …*
>
> <div align="right">*Teacher 5*</div>

Another teacher, Teacher 4, further brought up the example of a website using a comic story to teach DNA.

> *There's a website that introduces heavy topics like genetics, DNA in a very simple way. With animation etc. they make the genetics topic lighter. May be you can view the website. It is an example of the comic story. It's online and the students enjoy it very much. They can see the DNA…the link between your DNA, your parents, your ancestors and show you how DNA works, what is gene etc.*
>
> <div align="right">*Teacher 4*</div>

EXCERPT 4

Examples of how teachers try to promote collaborative learning among their students

… Based on self-access and project-base-learning approaches, I always ask the students to get into small groups and each group is responsible to complete a special task, one group entitle to one organelle. Teacher introduces, give the main aspects and the basic concept of organelle only. Then, give clear instruction/ guidelines and provide standard template for everybody. Enough time is given to prepare the hand-out and power point presentation. ..... all students have the diagrams/ characteristics/functions of all that 14 organelles. Again, indirectly, I inculcate the interest and encourage scientific communication in the class. Of course, there is a room for improvement; I start with giving 'organelles quizzes' before move to the next subtopic.

Teacher 4

Plan well before hand and help the students in forming the group - harmony in terms of gender, racial and academic achievements. In a nut shell, the best always comes from you
Teacher 2

The lesson went quite well I guess because the students enjoyed the lesson, happy and loosen up because they were given chance to do outdoor study.

Teacher 4

Thus, it is clear that there is sharing of ideas among these teachers and the sharing does cover all the teaching and learning principles described. The challenges faced by teachers in using blogs as a tool for their professional development will be explained in the subsequent section.

Problems Faced by the Teachers and Their Suggestions for Improvement

Out of the nine teachers from five Smart schools who participated in this study, four admitted they were new to blogging. Although all of them contributed their postings to the blogs, a number of them also expressed their dissatisfaction with the approach suggested for blog sharing. They felt the demands to post video clips of their perceived best and worst lessons, and to comment on the peers' posting were too cumbersome and unhelpful. They suggested that the approach to share teaching practices should be conducted in a less threatening environment, such as face-to-face discussions or sharing in designated places.

Some suggestions were put forth on improving the blogs to make them more accessible and less threatening. They suggested alternative online tools, such as chats forum to discuss and share practices, including agreeing on a proposed free day and time to chat. Teacher 6 did not like the idea of commenting on the blogs of other teachers as she felt that she was not qualified

EXCERPT 5

Examples of how teachers try to make their lessons creative

Physiological processes (e.g. : electrochemical events in nervous system) and Biochemical processes (e.g. : photosynthesis) are long processes with many steps, it takes place in the cells, many enzymes and chemicals/ions involved.
A long process should be break into shorter processes, to make it looks easier. students awake and enjoy much, if teacher elaborates step by step on the board, using the best simplified diagrams or mind map, pause many times asking questions (base on my personal experience).

Then only show the animation using biology interactive coursewares, before giving them worksheets. Teacher must answer the essay question together with them, practice the systematic way of answering and emphasies on the usage of keywords in answers.

Teacher 4

I decided to exchange role where students got into groups of four and presented me with powerpoint while l sat at the back and listened. They came out with colourful, well prepared powerpoint presentation and took pride in explaining their presentation. In fact one of the students brought a digital camera to video taped their presentation. There were so much fun as the students were free to question the group that did the presentation. After the presentation i replayed the video for students to see them in action. I believe that at times we must break monotony and let the students show their talent
Teaching chemistry to rural students back in the nineties was a real challenge to me because most students were not interested to come to school. It was a chore and chemistry seemed alien to them. So what i did then was to focus on being friendly and most of the time end up telling them stories instead of chemistry

Teacher 1

EXCERPT 6

Examples of teaching beyond the classroom

I taught on the topic of 'Balance of Nature' on that time. The aims were to identify the organisms in a food web and the role of food webs in maintaining the balance of nature.

First, I brought the students to the school gardens to look for various organisms such as insects, plants or other living things. They had to list down all the living things that can be found … . …in the class, they built food webs based on the data that was collected. After that, we had a discussion on how the food webs play the role in maintaining the balance of nature.

Teacher 9

to do so since she majored in a different discipline from many of them and taught only lower forms. Teacher 4 had a similar opinion. She also felt that it would come across as 'showing off'.

> *My problem is I can't comment on other people's work because they major different subjects. They teach Chemistry, Biology. For me, I'm teaching the lower forms and the science for lower forms is very basic and so I don't need to go into details. Very big difference.*
>
> *Teacher 4*

> *That's one of the reasons. We're worried that we are a bit show off, like as if we are so good, but we are not.*
>
> *Teacher 6*

Other teachers were reluctant to comment as they did not want to offend their team members. In addition, they were not comfortable to respond in the blogs as they were afraid of being criticised in return. As Teacher 4 added:

> *… and at the same time we are not comfortable with other people criticizing us, they may say funny things.*
>
> *Teacher 4*

This led to teachers being very cautious and hesitant in putting too much on the blogs. The teachers were also not able to

perceive the blog as a platform that could help them to improve their teaching practice and to solve the problems they faced in the classrooms. This is indicated in the following excerpt:

> *May be the tasks given to us, the approach must be made more friendly. …. Everybody wants to say something, comment on each other.*
>
> *Teacher 4*

The teachers also faced problems in getting access to computers to perform the blogging activities in their schools as they had to share computers with other teachers. As Teacher 4 lamented:

> *….Like for me, I'm teaching Form 6 and am away from the main block. We have our own building without any facilities, computers. So for any facilities we have to come to the main block. By the time we come to the main building either a teacher is using the materials or the computers or the computers have broken down. Always break down. That's the problem.*
>
> *Teacher 4*

Teachers also complained that computers were not functioning most of the time. This can be a great hindrance to them as it can kill enthusiasm. However, time seemed to be the biggest obstacle for these teachers. The teachers claimed that in view of the fact that they had to spend a lot of time preparing lessons, they did not

have time to participate more actively in the blogs. For this, Teacher 7 said:

I also have problem with time as a lot of time I spend to prepare my lessons. Because I concentrate on my teaching because this is the first time I'm teaching Form 5 Biology. There's a lot of pressure on me. I've got to prepare the teaching materials. So sometimes I'll do until midnight. So it is hard to find the time to do blogging.

<div align="right">

Teacher 7

</div>

Teacher 9 further complained about having to attend meetings and carry out administrative work. Hence, she claimed she did not have the time to participate in the blogs.

FINDINGS AND DISCUSSION

The exploration of blogs, as a resource in enhancing teaching and learning, fulfilled several goals set out in the current research study. At one level, the experience was designed to increase awareness in the Science teachers about the power of blogging. At another level, one goal was to help teachers develop a sense of themselves as creators of knowledge, rather than just consumers of information, and to see themselves as meaningful contributors to professional development. At yet another level, their participation in the online community (blog) suggested the idea that peer sharing among teachers could be seen as a valuable source for professional development, a connection that would ideally be continued long after the completion of this study.

In exploring whether blogging actually leads to sharing of good teaching and learning practices, it can thus be concluded that blogging does to a large extent lead to the sharing of teaching and learning practices. The sharing of practices, as evinced in the findings discussed, shows that blogging can be used as a platform to discuss and share practices among teachers from different schools, which otherwise would not be possible due to geographical differences. With the use of blogs created for subject experts that offer an abundance of advice and information to teachers (Clyde, 2005), teachers have more access to information and resources within their grasp, and the geographical factor of collaborating with other teachers can be eliminated with an online community of educators. Through blogs, teachers can communicate and support one another as they continue to learn and develop in their respective schools. This study has also indicated that the blog studied here demonstrate a community of practice, albeit at an infancy stage, in that it was used by the participants as a discussion space. It was a forum that required teachers to share their perceived best and worst practices by discussing beliefs, learning from each other, and demonstrating to each other how they would act in their actual classrooms. The blog is a place for these teachers to voice their doubts, struggles, discomforts, and successful and unhappy teaching and learning experiences because the participants share very similar

experiences of being Science teachers. Dewey (1933) claims that if we want to make our experience educative, it is essential to support ongoing growth in a process of continuing new inquiry. Getting together in a group armed with the same concerns for Science teaching and learning enabled these teachers to identify persistently problematic questions, work together to think through the questions, and push their thinking further as a group.

As reported earlier (Lee, 2009), one of the major challenges confronting Smart School teachers is the lack of opportunities for teachers' professional development. Blogging in this study provides an avenue for reflective learning, thereby supporting the findings of Chen *et al*. (2005), and Ferdig and Trammel (*in* Williams & Jacobs, 2004), as discussed earlier. Blog postings made it possible for the teachers to reflect on the practices and ponder their potential utilisation in Science teaching and learning contexts. It also has the potential in breaking down the "firewall around the classroom" and opening lines of communication between teachers, researchers, and teacher educators (Carraher, 2003). Posner (1993) adds to the discussion, stating that reflection allows teachers "to act in deliberate and intentional ways, to devise new ways of teaching rather than being a slave to tradition, and to interpret new experiences from a fresh perspective" (p. 21). Therefore, the advantage of purposeful reflection is that it enables practitioners to be proactive rather than reactive when organising learning environments.

In examining the opportunities afforded and the challenges faced in using blogs for teacher professional development, the focus group interview data revealed that the teachers faced a number of challenges, ranging from difficulty in accessing computers to the lack of time for active engagement. One of the most revealing findings concerns the teachers' reluctance to accept an audienceship for their written diaries, along the line of Oravec's (2003) concept of a 'community diary', where a group of learners establish and maintain thoughts and share their insights. One possibility for such reticence might be attributed to the public nature of blogs, where teachers may feel threatened. However, they may have been anxious for many reasons and further research will need to be conducted to find out what those reasons might be.

Thus, in overall terms, the findings seem to indicate that blogging has succeeded to a certain extent to encourage collaborative efforts among teachers to share their best practices; however, further probing via focus group interviews revealed that the teachers exhibited concerns relating to their awareness, readiness and competency in embracing the changes expected of them. Thus, as researchers and moderators, we have important roles to play to further support their learning experiences in terms of initiating and encouraging further teachers' participation. Since blogging is a new experience for many of the teachers, further scaffolding will need to be provided. With more experiences of this nature, we

are confident that teachers will contribute more and look at blogs as a non-threatening environment for enriching their practices.

CONCLUSION

This study has shown that blogs can to a certain extent be used as an extra tool for Science teachers to engage in computer-supported communication that resulted in better teaching and learning. Most teachers who experienced teaching as an isolated job, and one where they bear a heavy burden of responsibility behind the closed doors of the classroom (Hawkes & Romiszowski, 2001) should find blogs useful to break down the firewall around the classroom, open lines of communication, and help them to become reflective practitioners. While blogging appears to be helpful in encouraging and supporting teachers to be engaged in reflective practice with one another, caution has to be exercised as well on the basis of the partial evidence presented here, i.e. the public nature of blogs can be simultaneously a motivating and threatening resource for teachers, as most of whom are not accustomed to publishing their ideas for worldwide consumption via the Web. Finally, simply making blogs available in the context of this study is unlikely to be enough to motivate teachers to make full use of these resources. The degree to which mentors should participate in the online discussions, as a strategy to encourage teachers to join in and stay in the conversation, needs to be determined and clearly worked out. Moreover, since sharing of practices and reflection via blogs

does not happen magically, as with any knowledge, skill, or disposition, teachers must acquire, and reflective blogging must be promoted and supported. Our research team ought to think of purposeful steps to encourage teachers to develop the habit of engaging in this activity if it is ever to become generalised into the teachers' professional lives.

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APPENDIX A

Task 1 and Task 2 in the blog.

Dear everyone,

Thank you for participating in this Online Continuing Professional Development project. We appreciate your participation and commitment. We assure you that this blog is private; therefore, nobody from 'outside' the group will be allowed to view the entries in this site. So, please do not hesitate to share your views here. Now, please look at the questions below and answer them as best as you can.

Task 1:

1. Describe one of your lessons that went very well. For this lesson, explain what you were teaching, how you were teaching and how you knew it went well. In your description of your lesson consider the following:

a.   Where did your ideas for this lesson come from?

b.   How was this different from other lessons?

c.   What do you think made the lesson successful?

d.   Did you learn anything from the experience?

e.   If you want to improve this lesson how would you do it?

f.   Have you shared your experience with anyone else?

Task 2

All teachers experience challenges. Could you describe one that was very challenging. Where did your ideas for this lesson come from?

a.   Where did your ideas for this lesson come from?

b.   How was this different from other lessons?

c.   What do you think made the lesson challenging?

d.   Did you learn anything from the experience?

e.   If you want to improve this lesson how would you do it?

f.   Have you shared your experience with anyone else?

Now read the other entries posted by your online community and discuss them. You might consider what you have learnt from reading each others' entries.

Posted by eCPDelt: Model 2020 at 3:46 PM

APPENDIX B

Questions for the interview

1. How do you find the blogging activities?

2. What about the blogging activities that you like?

3. What about the blogging activities that you don't like?

4. What are some of the problems you faced (if any)?

5. How do you think things can be improved?

6. How do you feel about the role of the mentors in this?

7. What do you want more?

8. What do you want less?

9. How do you feel about your involvement so far?

Framing the Contemporary Education Issue: Analysis of News Stories from Selected Malaysian Daily Newspapers

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ABSTRACT

The policy of teaching and learning of Mathematics and Science subjects in English was decided in 2002 and implemented in the following year. After five years of using pupils' second language in learning these two highly cognitional subjects, the policymaker attempted to reconsider the medium of examination for the 2008 Primary School Achievement Test. On 27 October 2007, the then Prime Minister made a surprise announcement that the test for these two subjects would continue to be set in dual languages, namely, English and the respective mother-tongues. The main objective of this framing study was to explore the frames dominantly portrayed by policymakers, movements, and other parties involved. A content analysis on daily newspapers of the four languages was conducted for a period of one month after the above-mentioned announcement was made. This research adopted the format of Semetko and Valkenburg (2000) in scrutinising framing from "responsibility," "conflict," "morality," "economic consequences," and "human interest" perspectives. The research findings met the objective of establishing the source frames. The policy frame is more responsible in nature, while the movement frame is more confrontational and the editorial frame tends to highlight the morality aspect of life. The reader frame is deemed to be somewhat close to the movement for its aggressiveness.

Keywords: Frame building, generic frame measures, news frames, source frames, education issue, and content analysis

INTRODUCTION

Framing in communication, according to Reese (2001), "refers to the way events and issues are organised and made sense of, especially by media, media professionals, and their audiences" (p. 7). Sociologist Erving Goffman is often credited with

introducing the framing approach in social and economic studies for decision-making. In his classical work on framing, Goffman (1974) elaborates on how new information could be successfully processed by people in applying human interpretive schemata to organise information and interpret it meaningfully.

Frames, be it published on media or submerged in human mind, are thus the cognitive shortcuts that people employ to understand the complex world. Frames help journalists to describe or explain the happenings of an event and thereon audience interprets them in order to understand the world which may be far from his/her reaching. They help people to organise the multifaceted occurrences into simple, consistent, and understandable categories. In other words, framing involves both constructing the interpretive frames and then representing them to others in mediated communication processes. Framing studies in communication are seen as lacking the distinctness in meaning and require comprehensive nature of the term (D'Angelo, 2002; Scheufele, 1999, 2000). This could be the reason why framing has become more popular than agenda-setting and priming in the past decade (Weaver, 2007).

According to Scheufele (2000), McCombs has earlier attempted to apply the framing theory in order to expand and develop the existing agenda-setting theory. In a paper presented in Chicago in August 1997, McCombs further defines framing as "the selection of a restricted number of thematically related attributes for inclusion on the media agenda when a particular object is discussed" (quoted in Scheufele, 2000, p. 297-298). In his argument, framing together with priming should be adopted into the family of agenda-setting paradigm and regarded as the second-level agenda-setting. If the original theory, i.e. the first-level agenda-setting, concerns with the salience of issues, then the extended second-level agenda-setting study emphasises on the salience of issue attributes.

Although there are efforts to absorb these two approaches under the broad concept of agenda-setting, Scheufele (2000) believes that the integration of agenda-setting, priming, and framing into a single model is inappropriate. The attempts to combine them as one entity have largely ignored the differences among the theoretical premises of these three models. Despite some similarities, framing is indeed a distinctive by-product of the agenda-setting model. Scheufele (2000) asserts that agenda-setting and priming are based "on the notion of attitude accessibility" (p. 309), while framing assumes "subtle changes in the wording of the description of a situation might affect how audience members interpret this situation" (p. 309).

The 2007 special edition of *Journal of Communication* has fruitfully reified these three models of communication effects. The guest editors, Scheufele and Tewksbury (2007), stated that the emergence of these three models has signalled a paradigm shift in the political-communication research. The agenda-setting emphasises on the

transfer of news salience by media, while both priming and framing are based on the notion that media have potentially strong attitudinal effects. Nonetheless, these effects depend heavily on audience's schemata or human frames. In this respect, Scheufele (1999) is of the view that framing is deemed as both macro- and micro-level constructs. In understanding the macro-construct, communication scholars are at ease to scrutinise the presentation approaches of news reports, in which journalists and news sources usually advocate a frame in such a manner as to resonate the audiences' existing underlying schemata. Whilst micro-construct is vital in the framing process, the psychological indulgence of information within human interpretive schemata plays an important role, too.

This research study has limited the scope to scrutinising the frame-building aspect of print media on a predetermined education issue in Malaysia. Hence, the frames in the news coverage on teaching and learning of mathematics and science subjects in English are the emphasis of this study. Many media studies have examined news frames from the journalistic perspective. Some researchers interpret the frames from the issue-specific perspectives (e.g. Entman, 1991; Norris, 1995), while others measure the frames in the generic manner (e.g. Hallahan, 1999; Iyengar, 1987, 1991; Semetko & Valkenburg, 2000). There seems to be a gap where the source frames have been neglected in all those research studies. We could see the sources of news stories having their preferred views highlighted

by media. They may attempt to project the frames that are in favour to their positions. Nevertheless, it is also up to the journalists to decide how to frame the sources' views. In this respect, journalists may assign certain frames that reflect the sources' images while constructing the news stories.

The lack of research in examining the source frames by itself is indeed a problem that has been overlooked. The shortage of framing studies on source frames has triggered the authors' interest in trying to understand the media allocation of prominent frames to respective news sources. In studying the announcement on the examination format pertaining to the languages used in setting papers for the Mathematics and Science subjects for primary school achievement test (UPSR) in 2008, the authors attempted to explore the dominant frames portrayed by the respective news sources in selected daily newspapers.

THE CONTEMPORARY EDUCATION ISSUE

In 2002, the then Prime Minister Mahathir Mohamad announced that the government might revise the education policy to bring back the English medium schools in order to elevate the standard of English language in Malaysia (*Utusan Malaysia*, 2002, May 7). Nonetheless, the Cabinet deferred this plan as the re-introduction of English medium schools as not in line with the spirit of the national education policy in promoting Bahasa Malaysia (*Berita Harian*, 2002, May 9). Two days after the Cabinet shelved the said idea, Mahathir suddenly made

another announcement that English would be used as the medium of instruction for the Mathematics and Science subjects for all Standard-One pupils effective the following year (*Berita Harian*, 2002, May 11; *Utusan Malaysia*, 2002, May 11; *New Straits Times*, 2002, May 11). Subsequently, the then Education Minister, Musa Mohamad reaffirmed Mahathir's claim by saying that a special committee had been established to determine how and when to implement this new education policy (*New Straits Times*, 2002, May 12).

Most ethnic groups in the country felt threatened of the possible changes in the mother-tongue education. This issue became intense and was heatedly by policymakers, policy-support groups, non-governmental organisations (NGOs), opposing political parties, media, and the general public. On 19 July 2002, Musa officially announced that from the year 2003 onwards, all students in Standard-One, Form-One, and Lower-Six would have to learn the Mathematics and Science subjects solely in English. In line with the effort to promote this language, the medium of examination for these two subjects would be in both English and Bahasa Malaysia. From 2008 onwards, all the examination papers on Mathematics and cience subjects would be set in English only (*Utusan Malaysia*, 2002, July 20). While revealing this education policy, however, Musa did not make any firm decision on whether the national-type schools would follow the same ruling.

The news coverage on the teaching of Mathematics and Science subjects in English became a controversial issue in the mid of 2002. With the demands from Chinese NGOs and appeals from Chinese-based ruling political parties, a resolution was finally made among the Barisan Nasional (BN) component parties in October 2002. The pupils of Chinese primary national-type schools would be allowed to learn these two subjects in both English and Chinese (Mandarin) languages. The 2-4-3 Formula that served the said purpose was eventually declared by Musa on 31 October 2002. Three years later, another formula for the second phase was announced by another Education Minister, Hishammuddin Hussein, on 23 December 2005. The 4-2-2 Formula was designed for Standard Four to Standard Six pupils of Chinese schools from 2006 onwards. The first digit in these formulas denoted the number of periods of English language subject, the second digit for the number of periods of Mathematics in English, and the third digit for the number of periods of Science in English.

This issue dragged on and with no definite decision on the language to be used for the 2008 UPSR examination as the second-half of 2007 was approaching. The Malaysian Chinese education movement, Dong Jiao Zong, widely recognised as the guardian of Chinese vernacular education in Malaysia (Tan, *et al.*, 2005; Tan, 2005), had once again taken the lead on 8 July 2007 to launch a campaign in appealing for the return of mother-tongue to be the language for teaching these two subjects. Subsequent to the above campaign and the pressure from various NGOs, Malaysian Chinese

Association (MCA) as the leading Chinese-based ruling political party had to respond to those voices reflected in the news coverage. Consequently, a motion was passed by MCA Youth Wing to urge the government to continue using Chinese language as the medium of examination for Mathematics and Science in the forthcoming 2008 UPSR. Hishammuddin, who was also the chief of United Malay National Organisation (UMNO) Youth Wing, eventually informed that he would announce the examination format by the end of 2007 (*Sin Chew Daily,* 2007, August 20). On 27 October 2007, the then Prime Minister Abdullah Ahmad Badawi made an announcement on retaining the exam format. He declared that all the primary schools could use two languages, namely, English and their respective mother-tongues, in answering the Mathematics and Science subjects in 2008 UPSR (*China Press*, 2007, October 28; *Guang Ming Daily*, 2007, October 28; *Nanyang Siang Pau*, 2007, October 28; *Oriental Daily*, 2007, October 28; *Sin Chew Daily*, 2007, October 28).

From this contemporary education issue, the news coverage revealed that different actors in their respective organisations attempted to portray different frames or certain aspects of the controversial issue. Under the frame-building aspect of the typology illustrated by de Vreese (2005), framing in the newsroom must undergo the test of both the internal and external factors. Besides the internal factor of newsworthiness and editorial policy, frame sponsors being the external

factor play an important role, too. Frame sponsors are described by Gamson (1984) as media sources who make efforts to frame information in news stories. They will make sure that the stories are slanted and framed in a way that is consistent with their preferred framing (Hallahan, 1999).

FRAMING LITERATURE

It has been widely accepted that frames help organise human central ideas in debates, which incorporate symbolic devices to characterise the nature of a controversy. Moreover, frames help to simplify complex controversial issues by highlighting certain dimensions of a topic. The frame advocates will always strive for greater visibility of their preferred frames than the alternative frames promoted by their competitors. Advocates and their competitors engaged in debates are all players of the scene. They are also the sources of information in the news reports. They utilise frames to strategically define issues in favour of their preferred outcomes, and also to affect audience to act according to their expectations. In this respect, news sources can be defined as an individual or an organisation associated with direct or indirect quotes in news reports.

Many researchers have studied news framing by content-analysing the news coverage of a particular issue in a stipulated period. Among other, Entman (1991) examined the contrasting frames on the news reports of Korean Air Lines versus Iran Air incidents. Another event-specific framing study was conducted by Norris (1995) in outlining the network news framing for three

different periods of cold war, transition, and post-cold war. On the generic perspective, Iyengar (1987, 1991) named the television news format of covering an issue in terms of individual event as the episodic frame and in terms of a larger historical social context, thematic frame. On the practitioner aspect, Hallahan (1999) listed down seven generic frames and pragmatically applied them in public relations practices. These distinct types of framing are situation, attributes, choices, actions, issues, responsibility, and news. Recently, Chyi and McCombs (2004) applied a two-dimensional measurement scheme in analysing the media frames on the tragic issue of Columbine school shootings. The two dimensions under study were space and time.

Meanwhile, Semetko and Valkenburg (2000) content-analysed the generic frames of printed and broadcast media news on European politics. There were five news frames being investigated by the two scholars, namely, responsibility, conflict, morality, economic consequences, and human interest. These five generic frames with their attribute statements are further explicated in this study. In operationalising the source frames, the authors have adopted the five frames with 18 attribute statements

TABLE 1
Generic Frames with Attribute Statements

Frames	Attribute Statements
Responsibility	The story suggests that a certain level of government/organisation (source of information) has the ability to alleviate the problem. The story suggests that a certain level of the government/organisation (source of information) is responsible for the issue/problem. The story suggests solution(s) to the issue/problem. The story suggests that an individual (or a group of people in society) is responsible for the issue/problem.
Conflict	The story reflects disagreement between parties, individuals, and/or groups. Party, individual, or group reproaches one another. The story refers to two sides or to more than two sides of the problem or issue.
Morality	The story contains moral message. The story makes reference to morality, God, and other religious tenets. The story offers specific social prescriptions about how to behave.
Economic consequences	There is a mention of financial losses or gains now or in the future. There is a mention of the costs or degree of expense involved. There is a reference to economic consequences or pursuing or not pursuing a course of action.
Human interest	The story provides a human example or "human face" on the issue. The story employs adjectives or personal vignettes that generate feelings of outrage, empathy caring, sympathy, or compassion. The story emphasises how individuals and groups are affected by the issue/problem. The story goes into the private or personal lives of the actors. The story contains visual information that might generate feelings of outrage, empathy, caring, sympathy, or compassion.

developed by Semetko and Valkenburg (2000) in the subsequent analysis. These attribute statements have been validated in the study and are listed in Table 1.

Instead of looking at the frames associated with media organisations, this research emphasises the five distinct generic frames portrayed by or assigned to the respective news sources. To be more precise, the authors have grouped the news sources into five main categories, namely, policy, movement, opposition, editorial, and reader.

METHODOLOGY

This research employed the methodology of content analysis in scrutinising the frames portrayed in news stories. This method is an objective and systematic procedure that examines the content of recorded information (Babbie, 2004; Walizer & Wienir, 1978). In understanding the source frames, two key variables are measured by this procedure, i.e. the sources of news and the projected frames. Research framework plays an important role by providing a structure in detailing the linkages among the variables in this study. Fig.1 depicts the work to be carried out in content-analysing the news reports. Source frames are established consequent to the measurements of the news sources and the attributes in news frames.

In looking for the sampled newspapers for various language categories, the authors had decided to select those with the highest circulation in their respective language categories. Four daily newspapers, together with with their selected circulation figures are outlined in Table 2.
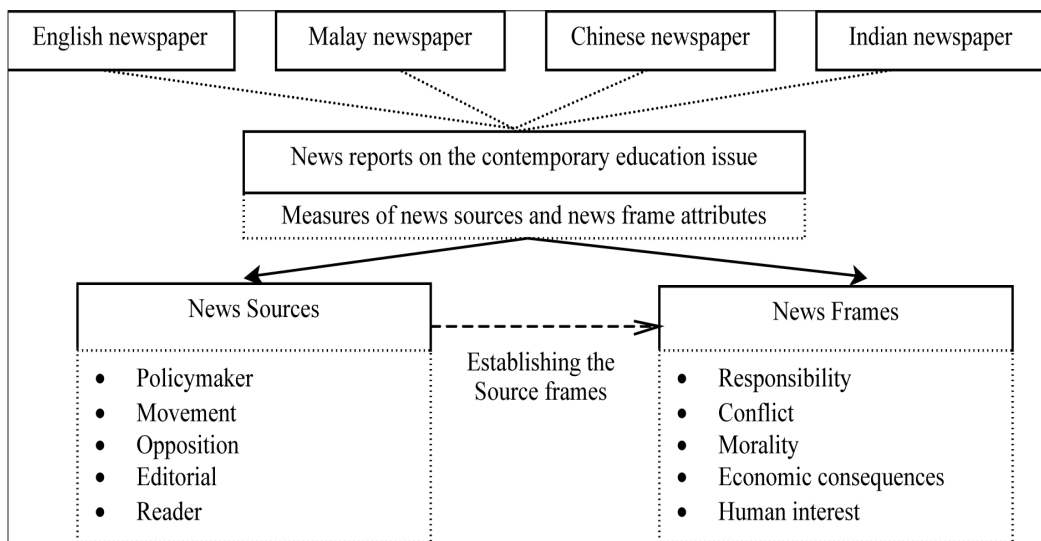
Fig.1: Research Framework

TABLE 2
Circulation of the Sampled Daily Newspapers for the Study

Language	Sampled Daily Newspaper	Circulation
Chinese	Sin Chew Daily	336,401
English	The Star	309,181
Malay	Utusan Malaysia	197,033
Tamil	Malaysia Nanban	60,000

Note: Circulations for the three former dailies are audited figures for 2007; while Malaysia Nanban is claimed figure for 2006.
(Sources: ABC News, 2007; Media Guide, 2007)

The sampling for the study duration of thedaily newspapers has various choices. Chyi and McCombs (2004) conducted a study on a tragic school shooting which took a month to study the media frames immediately after the incident first appeared in the news. In the attempt to understand the framing process which built the salience of the contemporary education issue, the news coverage was content-analysed for a period of one month. Hence, the study started on 28 October 2007 and ended on 27 November 2007. In other words, it was a 30-day period commencing a day after the then Prime Minister Abdullah's official announcement of the examination format for 2008 UPSR.

Two pairs of coders were engaged to carry out the coding of data from the selected newspapers. Prior to coding, all coders had been trained for important concepts and procedures in content analysis. The instruction in choosing a unit of analysis had also been made clear to all coders. Musa and Ezhar (1999) emphasised the importance of the unit of analysis as the key element for content analysis. All the coders were told of what was to be studied after which they could only determine on the unit to be recorded. The recording unit could be measured by word count, area of coverage for print media, or duration of broadcast time for electronic media. Many scholars (e.g. Berelson, 1952; Weber, 1990) listed down some common choices of units, such as word, word sense, sentence, theme, paragraph, whole text, character, item, space, and time. In this study, paragraphs contained in related news story were taken as units of analysis for measurements.

Other than training the coders in determining the units of analysis and recording them into a standardised coding sheet, they were also instructed to focus on the main paper and the regional section for the relevant news stories. At the same time, they were also trained to use the coding book which defined each and every observation that was fitting and could be put into a particular category. The coding scheme for the news sources in this empirical study was derived from the players who were involved in the issue. As mentioned above, there were five categories under this construct of initiator of news story. Generally, the office-bearers in the government and the politicians in the ruling political parties were those with the authority to decide on a public policy. Meanwhile, the activist groups or the NGOs, who were deemed as interested parties, had given their views and comments on the policy executed by the authority. There were some other news sources, such as the opposing political parties, media workers for constructing the news, and readers for voicing their concerns.

All the coders were given a list of possible wordings or expressions used by the news sources and a coding book for their frequent references. This coding book contained detailed instructions on how these elements or the variables to be analysed were to be recorded. As for the sources of news, the coders were required to specify whether the individuals or the groups fell under a specific category as per Table 3.

TABLE 3
Categorisation of News Sources

News Source	Representation in Organisation
Policy	Policymaker and policy-support groups: government and ruling political parties (e.g. UMNO, MCA, MIC, etc.).
Movement	Non-governmental organisation (NGOs) and education movement (e.g. Dong Jiao Zong, etc.).
Opposition	Opposing political parties (e.g. DAP, PAS, PKR, etc.).
Editorial	Editorial write-ups and spot news.
Reader	Letters to editors and comments or views from readers.

As mentioned above, the authors had adopted the five generic frames applied by Semetko and Valkenburg (2000) in their study of European politics. The scheme for coding the source frames applied the format of taking the marks by ticking "yes" or "no" if the attribute statements corresponded with the unit of analysis. The construction of the scale to measure the source frames applied the same procedure as in the studies of Semetko and Valkenburg (2000), as well as Valkenburg *et al.* (1999). The simple yes-no categories were chosen to measure the occurrence of the frames portrayed by the news sources. For an answer of "yes" in corresponding to the statement, the coders recorded "1" score, while "0" score was used for answering "no." The scale for each of the five frames was constructed by averaging the scores on the statements that were placed under the factor that they had been predefined. The values ranging from "0" indicated that a particular frame was not present at all to a perfect "1" which indicated that the frame was fully present.

Human interest frame had five attribute statements, in which each affirmative answer to the attribute statement contributed 0.2 score to the frame. If all the five statements were ticked "yes," it indicated the human interest frame was fully present. The four attribute statements in the responsibility frame carried a weight of 0.25 score each, while the three attribute statements in conflict frame, morality frame, and economic consequences frame gave 0.33 score each. In every unit of analysis, five scores were to be obtained and high scores on any frames would reflect the scenario as exhibited in Table 4.

To ensure a high level of consistency, inter-coding between the two coders was conducted for reliability test. The coders conducted the intercoder reliability test in two stages during the process of data collection. The reliability test determined the extent of agreement between the two coders in the following: (1) identifying the items with their news sources and (2) measuring the frame attributes. About one-third of the whole sample had gone through the test. The coders' decisions were checked

TABLE 4
Explanation of High Score on Respective Frames

High scores on:	The scenario:
Responsibility frame	High degree of the attribution of responsibility for its cause or solution to either the government or to an individual or group.
Conflict frame	High degree of conflict between individuals, groups, or institutions as a means of capturing audience interest.
Morality frame	High degree of putting the event, problem, or issue in the context of moral prescriptions.
Economic consequences frame	High degree of reporting event, problem, or issue in terms of the consequences it will economically have on an individual, group, institution, region, or country.
Human interest frame	High degree of bringing human interest or emotional angle to the presentation of an event, issue, or problem.

against each other and Holsti's (1969) percent agreement index was applied in this statistical procedure.

Firstly, in examining the reliability level in identifying the items with their news sources, the percent agreement indexes for four types of newspapers achieved more than 0.916, a level higher than 0.7, i.e. the acceptable value by convention. For the second stage, the coders compared their measures of the 18 frame attributes. All the indexes achieved more than the required 0.7, except for the agreement index for the Chinese newspaper which was quite close to the said value. Reconciliation was conducted between the two coders of Chinese newspapers. Recoding had been done and the coders eventually acquired the indexes within the range of 0.781 to 0.874, which met the obligatory level.

RESEARCH FINDINGS

Due to the Deepavali festival which fell on 7 November 2007, there were no publications on 8 and 9 November 2007 for *Malaysia*

Nanban (Tamil), and on 8 November 2007 for *The Star* (English) and *Sin Chew Daily* (Chinese), whereas, *Utusan Malaysia* (Malay) published the papers everyday throughout the research period. From Table 5, a total of 95 news stories were shown to be related to the issue undertaken in this study. *Sin Chew Daily* contributed 60 items (63.2% of the total), while 20 items (21.1%) came from *The Star*, 11 items (11.5%) from *Utusan Malaysia*, and another 4 items (4.2%) from *Malaysian Nanban*. Looking at the main sources of the news, 46 items (48.4%) were quoted from the policy source. It was followed by movement source with 26 items (27.4%), reader source with 16 items (16.8%), editorial source with 6 items (6.3%), and opposition source with only 1 item (1.1%).

As the sample size for the news from opposition source is too small, it was excluded from the subsequent analysis. This sole news from the opposing political party had only three paragraphs. The contribution from the Tamil daily was also considered

TABLE 5
Crosstabulation of Sampled Daily with Main Source of News for News Items

Main Source of News	Sin Chew Daily	The Star	Utusan Malaysia	Malaysia Nanban	Overall
Policy	30 (31.6%)	6 (6.3%)	7 (7.4%)	3 (3.2%)	46 (48.4%)
Movement	25 (26.3%)	-	1 (1.1%)	-	26 (27.4%)
Reader	2 (2.1%)	11 (11.5%)	3 (3.2%)	-	16 (16.8%)
Editorial	2 (2.1%)	3 (3.2%)	-	1 (1.1%)	6 (6.3%)
Opposition	1 (1.1%)	-	-	-	1 (1.1%)
Overall	60 (63.2%)	20 (21.1%)	11 (11.5%)	4 (4.2%)	95 (100%)

Note: Values in the parentheses represent the overall percentages.

TABLE 6
Comparing the Mean Paragraph (Unit of Analysis) by Newspaper

Newspaper	Sin Chew Daily	The Star	Utusan Malaysia	Overall
Unit of Analysis	409 (49.6%)	260 (31.6%)	155 (18.8%)	824 (100%)
News Items	59 (65.6%)	20 (22.2%)	11 (12.2%)	90 (100%)
Mean	6.93	13.00	14.09	9.16
Standard Deviation	3.478	8.909	6.363	6.244

Note: Values in the parentheses represent the overall percentages.

as small, and it had been decided that all the four news items (or 4.2% of total) from *Malaysia Nanban* be taken out from further analysis. There was a total of 26 paragraphs in the four Tamil news stories. After the deduction of these five news items, a total of 90 items were measured for their paragraphs to be applied as the unit of analysis.

In counting the unit of analysis for this study, there was a total of 824 paragraphs being scrutinised. Of which, 409 units (or 49.64% of total) were from *Sin Chew Daily*, 260 units (31.55%) from *The Star*, and 155 units (18.81%) from *Utusan Malaysia*. As exhibited in Table 6, the paragraphs contained in a news item from *Sin Chew Daily* are significantly smaller than that of its two counterparts. Comparisons were also made between the three daily newspapers.

Sin Chew Daily obtained a mean score of paragraphs in a news item or $M = 6.93$ ($SD = 3.478$), *The Star* with $M = 13.00$ ($SD = 8.909$), and *Utusan Malaysia* with $M = 14.09$ ($SD = 6.363$). Analysis of Variance (ANOVA) with Post Hoc test produced a result of $F (2, 87) = 14.838$, $p < .001$ had significantly proven the differences. This shows that on average, *Sin Chew Daily* has lesser paragraphs in a news article as compared to its counterparts.

In relation to this, a tabulation of the units of analysis according to the daily newspapers by the main sources of news is displayed in Table 7. This table should enhance the understanding of the contribution of units for the analysis from the various sources of news in the respective daily newspapers. The policy source in

Sin Chew Daily contributed the most units of analysis, with an overall percentage of 26.0%. This was followed by movement source in the same newspaper (18.3%), reader source in *The Star* (15.0%), policy source in *Utusan Malaysia* (10.4%) and *The Star* (9.5%), etc. Nonetheless, there were no contributions from movement source in *The Star* and editorial sources in *Utusan Malaysia*. Overall, policy source contributed 45.9%, followed by reader source overtook movement source (19.5%) with 24.0% contribution, and editorial source (10.6%).

The main objective of this study was to ascertain the different weights of the five generic frames assigned by the daily newspapers and also as portrayed by the news sources. Table 8 on the following page reveals no significant differences for transferring the salience of responsibility, conflict, morality, and economic consequences frames among the daily newspapers of different languages. The mean score of human interest frame for *Utusan Malaysia* was significantly lower than that of its two counterparts. ANOVA tests with the following results proved similar trends of attributions of frames by

these different newspapers: $F_{\text{Responsibility}}$ (2, 821) = .860, p = .423; F_{Conflict} (2, 821) = 1.775, p = .170; F_{Morality} (2, 821) = .637, p = .529; and F_{Economic} (2, 821) = 2.844, p = .059. However, the test result for human interest frame tends to be different: F_{Human} (2, 821) = 8.734, p < .001, in which the mean score for human interest frame for *Sin Chew Daily* with M = .059 (SD = .10) and *The Star* with M = .050 (SD = .09) are significantly greater than that of *Utusan Malaysia*, with M = .025 (SD = .07).

To further explore the source frames, the independent variable had been changed from daily newspaper to news source in terms of examining the weights of visibility of the five generic frames. In the ANOVA tests of the five frames by news sources, the results show an obvious emphasis in the portrayal of frames by different players involved in this social discourse. Table 9 illustrates this scenario and the different weights of visibility which will be explained later in the next section.

In terms of the responsibility frame, the test result of $F_{\text{Responsibility}}$ (3, 820) = 10.475, p < .001 ascertained the significant differences between the news sources. With the Post Hoc test, it was found that the policy source

TABLE 7
Crosstabulation of the Sampled Daily with Main Source of News for Units of Analysis

Main Source of News	Sin Chew Daily	The Star	Utusan Malaysia	Overall
Policy	214 (26.0%)	78 (9.5%)	86 (10.4%)	378 (45.9%)
Movement	151 (18.3%)	-	10 (1.2%)	161 (19.5%)
Reader	15 (1.8%)	124 (15.0%)	59 (7.2%)	198 (24.0%)
Editorial	29 (3.5%)	58 (7.0%)	-	87 (10.6%)
Overall	409 (49.6%)	260 (31.6%)	155 (18.8%)	824 (100%)

Note: Values in parentheses represent percentages of overall.

TABLE 8
Mean Scores of the Visibility of Five Generic Frames in Daily Newspapers

Daily	Responsibility		Conflict		Morality		Economic		Human		N
Sin Chew Daily	.083	(.12)	.110	(.17)	.024	(.09)	.008	(05)	.059 [a]	(.10)	409
The Star	.073	(.12)	.091	(.15)	.021	(.08)	.019	(.08)	.050 [a]	(.09)	260
Utusan Malaysia	.071	(.11)	.086	(.15)	.015	(.07)	.009	(.05)	.025 [a]	(.07)	155
Whole Sample	.078	(.12)	.100	(.16)	.021	(.08)	.012	(.06)	.050	(.09)	824

Note: Values in parentheses represent standard deviations.
[a]   There is no significant difference between Sin Chew Daily and The Star at 95% confidence level. Utusan Malaysia is significantly lower than the other two dailies at 95% confidence level.

TABLE 9
Mean Scores of the Visibility of Five Generic Frames by News Sources

News Source	Responsibility		Conflict		Morality		Economic		Human		N
Policy	.101 [a]	(.13)	.058 [b]	(.13)	.013 [c]	(.07)	.009	(.05)	.048	(.09)	378
Reader	.066 [a]	(.11)	.120 [b]	(.17)	.014 [c]	(.07)	.015	(.07)	.052	(.09)	198
Movement	.042 [a]	(.09)	.168 [b]	(.20)	.035 [c]	(.10)	.015	(.07)	.046	(.09)	161
Editorial	.072 [a]	(.13)	.107 [b]	(.16)	.046 [c]	(.12)	.012	(.06)	.060	(.10)	87
Whole Sample	.078	(.12)	.100	(.16)	.021	(.08)	.012	(.06)	.050	(.09)	824

Note: Values in parentheses represent standard deviations.
All the ANOVA tests are at 95% confidence level or .05 level of significance:
[a]   Policy is significantly higher than Movement and Reader but not Editorial. Movement and Reader are significantly lower than Policy but not Editorial. Editorial is neither significantly lower nor higher than other sources of news.
[b]   Policy is significantly lower than other sources of news. Movement is significantly higher than other sources of news. Both Editorial and Reader are at the middle level in between Policy and Movement.
[c]   Policy and Reader are significantly lower than Editorial but not Movement. Movement is neither significantly lower nor higher than other sources of news. Editorial is significantly higher than Policy and Reader but not Movement.

with M = .101 (SD = .13) revealed more responsibility frame than the movement source with M = .042 (SD = .09) and the reader source with M = .066 (SD = .11). Nonetheless, it was not able to claim that the policy source depicted the said frame more than the editorial source with M = .072 (SD = .13). Neither could the editorial source claim to be greater than the other two sources in portraying this particular responsibility frame (see Table 10 for the differences).

While looking at the conflict frame, the greater F-ratio indicates a greater difference among these news sources. The test result of $F_{Conflict}$ (3, 820) = 20.228, $p <$ .001 had separated the four sources of news into three groups. In Table 11, the mean

TABLE 10
Post Hoc Test for Responsibility Frame

	Group 1		Group 2
Policy:	$M = .101$ ($SD = .13$)		
Editorial:	$M = .072$ ($SD = .13$)	Editorial:	$M = .072$ ($SD = .13$)
		Reader:	$M = .066$ ($SD = .11$)
		Movement:	$M = .042$ ($SD = .09$)

TABLE 11
Post Hoc Test for Conflict Frame

	Group 1		Group 2		Group 3
Movement:	$M = .168$ ($SD = .20$)				
		Reader:	$M = .120$ ($SD = .17$)		
		Editorial:	$M = .107$ ($SD = .16$)		
				Policy:	$M = .058$ ($SD = .13$)

TABLE 12
Post Hoc Test for Morality Frame

	Group 1		Group 2
Editorial:	$M = .046$ ($SD = .12$)		
Movement:	$M = .035$ ($SD = .10$)	Movement:	$M = .035$ ($SD = .10$)
		Reader:	$M = .014$ ($SD = .07$)
		Policy:	$M = .013$ ($SD = .07$)

score in portraying the conflict frame by the movement source with $M = .168$ ($SD = .20$) was significantly greater than any other news sources. On the contrary, the mean score for the policy source, $M = .058$ ($SD = .13$), which was very much lower than any other sources and significantly alienated from the others. Meanwhile, the reader source with $M = .120$ ($SD = .17$) and the editorial source with $M = .107$ ($SD = .16$) were in between these two confronting players in this issue.

The ANOVA test for morality frame also displayed a significant difference among the news sources. The outcome of F_{Morality} (3, 820) = 6.238, $p < .001$ with Post Hoc test depicting that the editorial source was significantly greater than the reader source and the policy source. However, it was not the case when these were compared with the movement source. As outlined in Table 12, the editorial source with $M = .046$ ($SD = .12$) and the movement source with $M = .035$ ($SD = .10$) could not establish a significant difference between them. The movement source could not claim to be greater than the reader source with $M = .014$ ($SD = .07$) and the policy source with $M = .013$ (SD

= .07). The editorial source was found to be significantly greater than the two latter sources in portraying the morality frame.

The ANOVA test on human interest frame carried out for the three different daily newspapers exhibited a significant difference within the said independent variable. However, once the independent variable was substituted by the news sources, no significant difference could be established. The outcome of F-ratio was small with F_{Human} (3, 820) = .534, p = .659 and hence no claim of significant difference could be made. A similar case was found for the economic consequences frame where the test result of $F_{Economic}$ (3, 820) = .595, p = .618 failed to determine the significant difference between the news sources in portraying this particular frame.

DISCUSSIONS AND CONCLUSION

From the above analysis of the daily news contents on the coverage of teaching and learning of mathematics and science subjects in English, it is confirmed that the Tamil newspaper does not seem to have paid sufficient attention on the said issue, unlike its counterparts, the Chinese newspaper, which dominated in reporting this contemporary education issue. Although the size of content (measured by counting the number of paragraphs) is relatively smaller than that of the Malay and English newspapers, this vernacular daily still contributes the most units of analysis for the study. It has managed to create an impression that the Chinese educated group pays most attention to this issue. It is reported in the Chinese newspaper that this unpopular policy may affect the practice of mother-tongue education in the country, and in particular, the Chinese education system.

Besides allocating the most space for the coverage on this particular issue, the Chinese newspaper is the only one which has given room to the opposing political party to participate in media discourse. However, this opportunity is rather small or limited as members from this news source category were not given enough space to voice out their views on the issue. Although the Chinese newspaper has little space for the opposing political party, it has allocated the most space to the movement groups and NGOs. There is no news story attributed from this news source category in the English newspaper and only one reported in the Malay newspaper, which is sourced from Yayasan Karyawan. Meanwhile, the news stories attributed from the movement source in the Chinese newspaper are mainly from Dong Jiao Zong. In this respect, the Chinese newspaper appears to be more accommodating to the education movement in terms of counter-framing.

Comparing the weights assigned to both the news sources of policy and movement, the Chinese newspaper produced a ratio of 30:25 or 1 to 0.83 in terms of the news item count. However, the ratio is relatively smaller if the news paragraph count is taken into consideration, in which 214:151 or 1 to 0.71 is the comparison. As can be seen from the above ratios, the policymaker and its supporting groups are given the most media space vis-à-vis other sources of news. This

is apparent for both the Chinese and Malay newspapers but not in the case of the English newspaper. On the other hand, the English newspaper received the most news stories from the readers' views. As this education issue involves the usage of English language for two highly cognitional subjects, the English daily newspaper has given the most space for its readers to debate on both the pros and cons of the policy. Similarly, the other two newspapers have also allocated some room for their readers to discuss the issue. In addition, the editorial boards of both the English and Chinese newspapers have assigned ample space to deliberate on the impact brought upon by the said policy. Nonetheless, their Malay counterpart does not seem to have such interest. There is no editorial write-up, except for the hard news and letters from the readers in the Malay newspaper on the discourse of teaching and learning of Mathematics and Science subjects in English.

As for the framing of the news stories in the print media, all the newspapers do not purposefully differentiate each other on the five predetermined frames. Semetko and Valkenburg (2000) and Valkenburg *et al.* (1999) reveal in their studies that media with different natures of business and targets at disimilar audience tend to portray varied frames in the same issue. In this study, it is noted that in the human interest frame, the Malay newspaper tends to provide less emphasis on it as compared to the English and Chinese newspapers. In other words, the Malay newspaper touches the least in bringing human interest or

emotional angle to the presentation of the said issue. Overall, all the three newspapers undertaken in the current study do not establish significant differences for the other four frames, namely, responsibility, conflict, morality, and economic consequences. This could be attributed to the same nature of business for the three newspapers but a slight diverse readership from different cultural backgrounds.

It became a different scenario when the frames of the the main sources of news information were compared. Hence, it is obvious that the policymaker and its supporters portray a very strong responsibility frame vis-à-vis other news sources. This communicative behaviour through media intends to frame the mind of the readers for what the policymaker does, i.e. to demonstrate the accountability of the government for solutions on the issue. The editorial source is also inclined to add weight in portraying this particular responsibility frame but no significant differences can be found when it comes to comparing the same with the movement and reader sources.

The editorial and reader sources indeed score higher in the portrayal of the conflict frame. However, their scores are not as high as the frame attributed from the movement source. The education movement and NGOs, being the champion in challenging the implementation of this education policy, have performed counter-framing by confronting the actions and decisions made by the policymaker.   On the contrary, the policy source is seen to be the least offensive

body. Its score for the conflict frame is much lower than that of the editorial and reader sources. Both the editorial and reader sources are at the middle level among all. The research finding has ascertained that the movement source emphasises the most on conflict frame in capturing audience attention.

Thus, it is clear from the above outcomes that the policy source is linked closely with the responsibility frame, while the movement source is associated itself with the conflict frame. From the statistical test in finding the significant difference in the portrayal of the morality frame, the editorial source attains higher scores than the policymaker and its supporters, and also the readers' views. Although the education movement and NGOs display a certain level of importance on this morality frame, no significant difference was found when the movement source was compared with the policy and reader sources. As a result, this finding puts the editorial source in the perspective of trying to put the issue in the context of moral prescriptive.

In line with the objective of this research, i.e. to establish the source frames for the issue under study, some conclusions can be made from the interpretations of the analysis of the statistical tests. The frames portrayed by the sources of news information may not be solely their personal thoughts on the issue but more of their positions or representations in the organisation. Thus, it can be concluded that the policy frame is more responsible in nature. Unlike its counterpart, the movement frame is more

confrontational in capturing attention when counter-framing the policy source. Meanwhile, the editorial frame tends to highlight the morality aspect of the issue. The reader highlights less on morality but comparitively more on human interest and economic consequences. The statistical tests, however, could not establish that the two latter frames portrayed by the reader were significantly greater than that of the other news sources. Hence, the reader frame was found to be only relatively close to the movement for its aggressiveness.

As mentioned earlier by Reese (2001), framing in communication is indeed how media, media professionals, and their audiences make sense of a particular issue or event. Symbolic forms of expression plays the role to entail patterns or categorisations of pictures in their heads and then to represent them to others. It is apparent that all news sources applied such symbolic forms of expression through mass communication. The source frames encountered in this study such as policy frame, movement frame, editorial frame, and reader frame, have their own unique pattern of salience of news attribution. This particular strategic action in communication is regarded as "an ideological contest…in which participants manoeuvre strategically to achieve their political and communicative objectives" (Pan & Kosicki, 1993, p. 40).

News sources as frame sponsors much highlighted by Hallahan (1999) always ensure their expressions are consistently framed and slanted to their preferences. In framing their news stories, the news

sources "select some aspects of a perceived reality and make them more salient in a communicating text, in such a way as to promote a particular problem definition, causal interpretation, moral evaluation, and/or treatment recommendation for the item described" (Entman, 1993, p. 52).   The present study had successfully observed what had been made salient in media text by the news sources. However, how they communicate in describing the news stories is beyond the scope of this study.

The present research is confined to the news coverage on a contemporary education issue.   It has thus caused the limitation to scrutinise various types of issues, such as economics or political issues, which might help to make a better generalisation of the findings. Hence, the inferences made in the analyses of this research are narrowed to the scope within the issue of teaching and learning of Mathematics and Science subjects in two languages for Chinese primary schools only. Other education issues beyond this boundary were not examined and therefore no further inference is to be made on the whole education policy. Besides that, the analysis was conducted on only four, and subsequently three, daily newspapers at a specific time and hence, no representation of all media in the country is to be made on their stands in evaluating this specific education policy. The authors have to highlight that no broadcast media had been studied in this research. Another perspective of the media frames projected by radio and television has not been examined. Alternative media, such as online news and

blogs, were also not examined. Furthermore, the study of print media was limited to only selected newspapers. The authors have no doubt that these limitations can be overcome in future research.

In this study, it is not the authors' intention to rule out the significant role of the people in the media organisation to frame an issue. However, the contribution of the news sources is very much greater in determining how an issue is to be framed. In this respect, the framing process of selection, exclusion, and emphasis of a particular aspect of an issue happened on both the media workers and sources of news. Nonetheless, the sequence of the framing process should begin with the sources' choices before going to the hands of the media workers to decide on what and how news stories are to be written.

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The Effectiveness of the Barton Intervention Programme on Reading Skills of Dyslexic Students

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ABSTRACT

The purpose of this study was to determine the effectiveness of the Barton intervention programme on reading skills of dyslexic students. This study used an experimental design. The population included 138 fourth and fifth graders of male and female dyslexic students in Ilam, Iran. A total of 64 dyslexic students were randomly selected and assigned into two groups, namely; the control group and the experimental group. The experimental group received three months of treatment. Pre-test and post-test for the reading skills (i.e. reading recognition, reading fluency and reading comprehension) were carried out on the students to measure their reading skills. The reliability of the reading skills was also confirmed. In addition, the content validity of the scales was investigated using the judgments of 10 psychology experts, whose expert knowledge also confirmed the scales. The analysis of the findings using the Multi-variate Analysis of Variance and the Analysis of Variance showed a significant difference between the control and experimental groups after the treatment of Barton intervention programme, i.e. at p< .000.

Keywords: Intervention, reading, fluency, comprehension, reading recognition, dyslexia

INTRODUCTION

Dyslexia is a specific learning disability that is neurological in origin. It is characterized by the difficulties with accurate and/or fluent word recognition and decoding abilities. These difficulties typically result from a deficit in the phonological component of language that is often unexpected in relation to other cognitive abilities and the provision of effective classroom instruction. Secondary consequences may include problems in reading comprehension and reduced reading experience that can impede growth of vocabulary and background knowledge (Hennessy, 2003). Byrne and Fielding-Barnsley (1995) carried out a 12-week intervention in which the kindergarteners were taught the principle of phoneme identity, such as the words that can begin and end with the same sound. At the

end of the training period, the children from the experimental group outperformed those from the control group. Two years later, at the end of the first grade, the experimental group performed better than the control group in reading and they showed a marginal advantage when reading regular words. At the end of the second grade, i.e. three years after the intervention, the experimental group remained ahead of the control group in decoding skills and they also did better in reading comprehension.

For dyslexic students, there are specific and significant difficulties with fluent reading and the phonological components of language, which are related to the left hemispheric language functions of the brain. Many prominent researchers have linked dyslexia to cortical anomalies and neurophysiological dysfunctions, particularly to the areas of the brain impacting language functions (e.g. Duane, 1991; Galaburda, 1999; Ojemann, 1991). According to Shaywitz (2003), the automatic detector in the left occipito-temporal area of the brain breaks down in children with dyslexia. A neurological anomaly prevents their brains from gaining automatic access to the word analyzer and phoneme producer areas of the brain. A microscopic examination of dyslexic brains conducted by Galaburda (1994) revealed several abnormalities in the brains involving ectopias and dysplasisas (a kind of scarring) of the neurons. These cortical lesions were taken to suggest atypical patterns of neuronal circuitry. An associated finding was symmetry of the planum temporal.

Rather than finding the left planum to be larger than the right in these dyslexic brains, they were equivalent in size, with the right larger than normal. Taken together, these findings suggest that the differences in the brain structure in dyslexic children date back to prenatal brain differentiation, i.e. a process that is under genetic control.

According to Shaywitz *et al.* (2004), phonologically reading intervention will improve reading and development of the neural systems serving reading. The experimental intervention was structured to help students increase phonological knowledge, and at the same time, develop their understanding of how the orthography represents the phonology. Students who received the experimental intervention programme not only improved their reading but also demonstrated an increase in activation in the anterior system as well as in the parietotemporal and occipitotemporal system, as compared to their preintervention brain activations. A study by Temple *et al.* (2003) showed that intervention programme resulted in improvement in reading accuracy and increased brain activation in the posterior reading systems as well as in right hemisphere and cingulated cortex.

READING

The National Reading Panel Report recommended integration across all three areas, namely; alphabetic, fluency and comprehension – in order to create a complete reading programme (Daly *et al.*, 2005). Research indicates that phonological

coding ability is the primary determinant of a child's success in mastering the alphabetic code and learning to attach names to printed words, whereby both are essential components in learning to read (Vellutino, 1991). Dyslexic students experience severe phonological processing problems (Lovett & Steinbach, 1997). Since success in reading in the elementary grades is best predicted by measures of phonological awareness and phonological processing skills in kindergarten, difficulties with decoding and word identification should be addressed as early as possible in a child's school experience (Wagner *et al.,* 1994). However, research also suggests that phoneme awareness deficits are characterized in dyslexic students at all ages (Bruck, 1992).

The development of reading fluency has been linked to successful reading since the research on the psychology of reading (Chard *et al.*, 2002). Reading fluency is developed through repetition, like playing tennis which is perfected through repetition (Chard *et al*., 2002). In 1974, Laberge and Sumuels discussed how reading involves automatically processing letters into words and words into meaningful texts (Chard *et al*., 2002). In spite of research stating the necessity of reading fluency, it is still an element that is often overlooked in the development of reading programmes (Chard *et al*., 2002). After the primary grades, students are expected to read independently to learn contents for pleasure, and if they are unable to process the assigned material, they may develop negative attitudes towards reading and fall behind in content acquisition (Worthy & Prater, 2002). Thus, being a fluent reader makes the workload in the upper elementary and secondary grades manageable. Fluency is rarely taught after the primary grades, although fluency instruction has been found to be appropriate for all ages and a crucial component of completion and enjoyment in reading (Cunningham, 2001).

Many dyslexic students depend on semantic-contextual cues and pictures to figure out word meaning because they do not know how to decode words (Kim & Goetz, 1994) and are unable to focus on meaning (Williams, 1991). When a great deal of capacity is required for decoding, comprehension suffers (Laberge & Samuels, 1974). Given the increasing difficulty of words found in content textbooks, dyslexic students need to learn strategies to re-decode words accurately and automatically. Dyslexic students know alarmingly few words (Beck & McKeown, 1991). Typically, these students do not read books, and thus, lack exposure to words (Carlise, 1993). In addition, many dyslexic students do not read fluently because of continued difficulties with phonology, language structure and decoding (Samuels, 1979). They have difficulties with basic word recognition (Beck & McKeown, 1991), and thus, they read word by word at a slow rate (Henk *et al.,* 1986). This reflects a lack of sensitivity to grammatical boundaries and makes it difficult for them to read fluently and comprehend the text. Given the strong relation between fluency and comprehension

(e.g., Anderson *et al.*, 1991), strengthening students' fluency may further boost their comprehension (Fuchs *et al.*, 1999).

Dyslexic students do not brainstorm and activate prior knowledge before reading or making connections to old and new information (Campbel *et al.*, 1998). Torgesen (1982) found that students with reading disabilities were inactive readers and were lacking in comprehension strategies that would assist them in understanding the meaning of text. These students have difficulty summarizing and comprehending text because they tend to reflect on information that is not central and tend to omit pertinent pieces of information (Winograd, 1984). In particular, one of the largest problems for dyslexic students is differentiating peripheral details from main ideas in the text (Wong, 1991). As noted by Daneman (1991), vocabulary is partially an outcome of comprehension skills, and likewise, reading comprehension is partially an outcome of vocabulary. Dyslexic students need specific strategy training in monitoring comprehension and specific strategy instruction in previewing and activating prior knowledge (Langer, 1984), predicting (Readence *et al.*, 1998), clarifying and summarizing to facilitate content text understanding (Torgesen, 1982).

Reading comprehension is an active process that requires an intentional and thoughtful interaction between the reader and the text. As reader tries to comprehend the material he/she reads, he/she must bridge the gap between the information presented in the written text and the knowledge he/she possesses. Reading comprehension thus involves thinking. The reader's background knowledge, interest and the reading situation affect comprehension of the material. Each person's integration of the new information in the text with what is already known will yield unique information (National Reading Panel, 2000). All reading instructions should provide for the development of reading comprehension. For dyslexic students, reading comprehension is a major problem. Comprehension skills do not automatically evolve after word-recognition skills have been learned. Although most dyslexic students eventually learn the basics of word-recognition skills, many continue to have great difficulty with tasks that require comprehension of complex passages. These students need to learn strategies that will help them become active readers who understand the text (Lerner, 2006).

Reading comprehension is the reader's ability to understand what is read; ultimately to be able to restate it in his or her own words (Harris & Hodges, 1981). Thus, the reader must be able to decode words on the printed page, recognize important elements of the text, manipulate the ideas presented and reorganize them so they are recalled readily when needed. There is inter-relatedness between fluent reading and comprehension (Cheek & Cheek, 1986). Comprehension, like reading, is divided into a hierarchy, the scope of which includes literal, interpretive and critical skills. Literal comprehension is the process of getting verbatim details from the text, and is thought of as the basic skill. Proficiency must

be developed with literal comprehension before higher level skills can be acquired, making literal comprehension an integral part of the total reading process. Interpretive skills involve drawing conclusions, making generalizations, predicting outcomes and synthesizing ideas. Drawing inferences and interpreting the language of the author are important in comprehending the inner meaning of the material read (Cheek & Cheek, 1986). Lastly, critical comprehension skills require that evaluative judgments and reasoning be put to use by the reader. Burns and Roe (Burns & Roe, 1980) stated that critical reading is the evaluation of writing, which includes skills such as the ability to differentiate between fact and opinion, or between fantasy and reality (Rubin, 1991).

Comprehension has been studied repeatedly in the literature (e.g., Kamps *et al.*, 1994; Layton & Koenig, 1998). There are a variety of methods regarding measurements of comprehension and retention. Researchers have investigated the area of reading comprehension using retelling assessments. For example, Askew (1985) explored the effects of a measurement task and retelling on sixth-grade students' comprehension of expository text. In another investigation, Morrow (1985) examined the effects of preschool children's comprehension and sense of story structure using retelling as the dependent measure. Additionally, retelling is also used to evaluate the effects of study skills instruction as related to comprehension of expository tests (Adams *et al.*, 1982; McCormick & Cooper, 1991). Likewise, a number of techniques for aiding

students in understanding text have been evaluated empirically in the literature. For example, previewing text has been found to have a positive effect on comprehension. Dowhowe (1987) found that a group of students instructed with guided oral reading showed significant gain in comprehension in comparison to the unassisted group who read alone.

The aim of this study was to compare between the experimental group and the control group of dyslexic students after the treatment of Barton programme. The research hypotheses were as follows:

- There is a statistically significant difference in the reading skills between the control group and the experimental group of the dyslexic students after the Barton treatment programme.

  ○ There is a statistically significant difference in the reading phonic between the control group and the experimental group of the dyslexic students after the Barton treatment programme.

  ○ There is a statistically significant difference in the reading fluency between the control group and the experimental group of the dyslexic students after the Barton treatment programme.

  ○ There is a statistically significant difference in the reading comprehension between the control group and the experimental group of the dyslexic students after the Barton treatment programme.

METHODOLOGY

Design

Based on literature review, the experimental design was employed for the current research. This design controls the threats to internal validity. Explanations of how this design controls these threats are as follows: (1) History: This was controlled in that the common history events, which might have contributed to the pre-test and post-test in the experimental group effects, would also produce the pre-test and post-test in the control group effects, while a solution to history in this research is the randomization of experimental occasions, i.e. balanced in terms of the experimenter, time of day, week and so forth; (2) Maturation, testing and mortality are controlled in which they are manifested equally in both the treatment and control groups.

Procedure

In this study, the students of the fourth and fifth grades with dyslexia were first identified by using a questionnaire called "Dyslexia Screening Instrument". Two 100-word passages from their book, with 10 comprehension questions, were selected and assigned to the students to read. Their marks were scrutinized in the first semester and found to be lower than their counterparts. In order to examine their IQ, Raven's Test was performed to differentiate dyslexic students from the other groups with learning problem like slow learners, and the students with the average IQ higher than 90 made up the population of this

research. Finally, the population consisted of 138 dyslexic students in the fourth and fifth grades in Ilam, Iran. The population included 40 male students of the fifth grade, 37 male students of the fourth grade, whereas 38 female students of the fifth grade and 22 female students of the fourth grade. Their age ranged from 10 to 12 years. The researcher used the random number tables to select 64 dyslexic students and to categorize them into two groups, namely; the control group and the experimental group, with 32 students in each group. The tests for the reading scales ("Letter-Word Identification", "Reading Comprehension" and "Reading Fluency") were conducted on both groups. The children were given verbal instructions on how to complete the "Letter-Word Identification", "Reading Fluency" and "Reading Comprehension" (Woodcock *et al.*, 2004). The measures were used one by one in the classroom by the researcher who read the items aloud and circulated in the classroom, while observing the students' understanding of the instrument and providing assistance whenever necessary. In addition, demographic variables, such as age and IQ, were obtained as well. When the students had completed the measures (approximately 40 minutes later), they returned to their classroom.

Treatment

The Barton (2000) Intervention Programme was used in this study. The Barton Reading and Spelling System has 10 levels which are broken into lessons, and each lesson, in turn, is further broken into procedures. In

this study, only level one and level two were taught with some adjustments. In advance, level one and level two were adjusted to fit this study. Considering the fact that there are 26 consonants (6 vowels, a digraph and a few exceptions) in Persian, 6 lessons were specified for level two. Like the Barton (2000) Intervention Programme, the teaching procedures in the adjustment programme started with the easy level and gradually became complicated. Since instruction tools were not available in Persian, the researcher provided the necessary tools based on the Barton programme. The instruction tools included: (1) colour-coded tiles of letters, (2) word lists, (3) cards, on which words are written in blue for the consonants and red for the vowels, (4) a whiteboard, (5) blue and red markers, and (6) a notebook for dictation, along with red and blue pencils, an eraser and a sharpener. According to Barton (2000), level one is taught first, followed by the teaching of 6 consonants and one vowel in each session of level two. Sometimes, due to the difficulty of some consonants or vowels, some lessons were repeated for 2 to 4 sessions. Therefore, the instruction was done one by one for 36 sessions in 12 weeks. Each week, three sessions were conducted, whereby each session lasted for 45 minutes. It seems necessary to note that the students received the treatment in their school one by one, which was arranged by the principal. Meanwhile, the instruction time was set by the tutors. If the students could not learn a lesson properly, the lesson would be repeated till they learned it.

Pilot Study

The purpose of carrying out the pilot study was to evaluate the suitability and appropriateness of the use of the instruments. For the pilot study, 30 dyslexic students with similar characteristics to that of the participants in this study were randomly selected in Ilam. These consisted of 19 male and 11 female students. This study was carried out from 1st to 10th March, 2010. The data were entered using the SPSS Version 17 Windows XP software to determine reliability of the scales. The reliability test was applied by calculating the Cronbach's alpha on most variables to measure the inter-item reliability. It appeared that there was consistency in the following variables: Letter-Word Identification, Reading Fluency and Reading Comprehension. Internal consistency is usually measured by using Cronbach's alpha, a statistic that is calculated from the pair-wise correlation between items. Meanwhile, internal consistency ranges between zero and one. Cronbach's alpha coefficient of reliability, an alpha of .70, is normally considered to indicate a reliable set of items (De vaus, 2002). The reliability coefficient for each instrument used in this pilot study was also obtained. Cronbach's (1951) alpha reliabilities of the Letter-Word Identification, Reading Fluency and Reading Comprehension were found to be .84, .85 and .83, respectively. The results of the reliability coefficient showed a high reliability for all the three instruments, suggesting that these instruments were considered as appropriate to be employed further in this study.

Validity

In order to achieve the validity of Letter-Word Identification, Reading Fluency and Passage Comprehension Scales, 10 psychology experts first graded the scales from 1 to 5. The acceptable degree figures are shown in Table 1. Although there was no statistic for content validity, a statistical figure and mean were introduced (*see* Table 1). It is important to note that what have been presented in Table 1 are the acceptability degree criteria among the judges.

TABLE 1
Juror rank given by experts (Gregory, 2004)

Juror	Mean Fluency	Mean Comprehension	Mean Letter
1	4.61	4.85	4.59
2	4.3	4.7	4.9
3	4.65	4.75	4.82
4	4.45	4.92	4.9
5	4.66	4.78	4.85
6	4.7	4.9	4.94
7	4.45	4.7	4.6
8	4.75	4.8	4.9
9	4.75	4.8	4.75
10	4.75	4.87	4.94

Measures

Diagnostic Reading Battery: The Diagnostic Reading Battery (WJ III DRB) by Woodcock, Mather and Schrank (2004) was developed for reading skills. WJ III DRB can be used to determine and describe the status of a student's ability and achievement in five areas, such as phonemic awareness, reading fluency and reading comprehension. WJ III DRB is also useful in the diagnosis or the identification of specific weaknesses that may be interfering with school learning. The wide age range and breadth of coverage are important advantages of WJ III DRB for research at all age levels, i.e. from early childhood through mature adulthood. In this study, reading skills refer to phonemics, reading fluency and reading comprehension. In order to assess these three sub-variables, the researcher used three WJ III DRB sub-scales, namely, phonemic awareness, reading fluency and reading comprehension.

Letter-Word Identification Test: Letter-Word Identification measures the subject's word identification skills. The initial items require the student to identify letters that appear in large type on the subject's side of the Test Book, and the remaining items require the person to pronounce words correctly. The student is not required to know the meaning of any word. The items become increasingly difficult as the selected words appear less and less frequently in written English. Letter-Word Identification has a median reliability of .91 in the age range between 5 to 19 years, and .94 in the adult age range (Woodcock *et al*., 2004). In this research, the Cronbach's alpha reliability for the scale was .87, while the test-retest reliability was .86.

Passage Comprehension: The initial Passage Comprehension items involved symbolic learning, or the ability to match a rebus (pictographic representation of a word), with an actual picture of the object. The next items were presented in a multiple-choice format and required the students to

point to the picture which was represented by a phrase. The remaining items require the student to read a short passage and identify a missing key word that makes sense in the context of that passage. The items become increasingly difficult by removing pictorial stimuli and by increasing passage length, and the level of vocabulary and complexity of syntactic and semantic cues. In this modified cloze procedure, the subject must exercise a variety of comprehension and vocabulary skills. Performance on this reading task can be compared directly with the performance in one of the counterpart Oral Comprehension tasks. The Passage Comprehension has a median reliability of .83 in the age range between 5 to 9 years, and .88 in the adult age range (Woodcock *et al.*, 2004). In this study, the Cronbach's alpha reliability for the scale was .85, while the test-retest reliability was .87.

Reading Fluency: Reading Fluency measures the student's ability to read simple sentences quickly in the Subject Response Booklet, decide whether the statement is true, and then circle on the Yes or No answers. The difficulty of the sentences gradually increases to a moderate level. The students attempted to complete as many items as possible within the time limit of 3 minutes. Reading fluency has a median reliability of .90 in the age range between 6 to 19 years and .90 in the adult age range (Woodcock, *et al.*, 2004). In this study, the Cronbach's alpha reliability for the scale was .85, whereas the test-retest reliability was .88.

Dyslexia Screening Instrument (DSI): The Dyslexia Screening Instrument (DSI) consists of checklists of basic neuropsychological skills that were designed by Coon, Waguespack and Polk in 1994. This instrument is a rating scale that was specifically designed to describe the cluster characteristics associated with dyslexia and to discriminate between the students who display the cluster characteristics and those who do not. It was designed to measure the "entire population of students or the students who exhibit reading, spelling, writing or language-processing difficulties" (Coon, Waguespack, & Pollk, 1994). Besides, DSI was also designed to be used with students in Grade 1 to Grade 12, i.e. aged 6 to 21. The internal consistency reliability coefficient is .99 for elementary students, which is determined using Cronbach's coefficient alpha, while the inter-rater reliability for elementary students is .86 of the DSI that is assessed by determining the homogeneity of the statements and the consistency of ratings across examiners. Coon *et al.* (1994) stated that the "content is based on an extensive review of relevant literature and on experts in the field of dyslexia" (p.20). On the other hand, construct validity is supported by the discriminate analysis classifications, which place elementary and secondary students accurately (98.2% and 98.6%, respectively).

A classroom teacher who has worked directly with the students for at least four months should complete the DSI Scale. This caused a rating that would bring more accurate results because the teacher

had observed the students over a lengthy period of time and could compare their performance to that of the classmates. As for elementary students, the preferred rater is the teacher who instructs the student in a variety of subjects. The teacher should complete the DSI form (based on the questionnaire answers, as follows: Never exhibit, Seldom exhibit, Sometime exhibit, Often exhibit and Always exhibit). In this study, the Cronbach's alpha reliability for the scale was .89.

Raven's Progressive Matrices Test: Raven's Standard Progressive Matrices (SPM) Test was constructed to measure the educative component of "g" (general IQ), as defined in Spearman's theory of cognitive ability (Raven, Raven, & Court, 1998). Kaplan and Saccuzzo (1997) stated that "research supports the RPM as a measure of general intelligence. The advanced form of the matrices contains 48 items, presented as one set of 12 (Set I) and another of 36 (Set II). Items are again presented in black ink on a white background and become increasingly difficult as progress is made through each set. These items are appropriate for age 5 to 65. Lynn and Vanhanen (2002) summarized a large number of studies based on normative data for the test, which have been collected in 61 countries. The internal consistency reliability estimate for the Raven Progressive Matrices total raw score is .85 in the standardization sample of 929 students. This reliability estimate for the revised SPM indicates that the total raw score on the SPM possesses "good" internal consistency reliability, as provided

in the guidelines of the US Department of Education (1999) for interpreting a reliability coefficient. SPM has been widely used for decades as a measure of educative ability or "the ability to evolve high level constructs which makes it easier to think about complex situations and events" (Raven *et al.*, 1998). In an extensive analysis of the cognitive processes that distinguished between higher scoring and lower scoring, examinees on the Standard Progressive Matrices and Advanced Progressive Matrices, Carpenter, Just and Shell (1990) described the Raven's test as "a classic test of analytic intelligence". In this research, the Cronbach's alpha reliability for the scale was .83.

Reading Text

The Reading Text was developed based on the text contents of the fourth and fifth grades. During the administration of the research, 80 percent of the text-book had been taught, and thus, the developed tests were based on 80 percent of the Persian text-books. The tests were evaluated by the fourth and fifth grade teachers. After 3 times revisiting, they evaluated the tests as conveniently. The tests included a story of one-hundred related words understandable to each education level and followed by 10 questions which indicated the students' level of understanding. The students were required to read the tests out aloud and answer the questions. If any student could read the text correctly in less than 90 percent of the text and perform less than 50 percent on the reading comprehension, he/she

commits more than 10 errors and answers less than 5 comprehension questions, that particular student is identified as dyslexic. To determine reliability, the Cronbach's coefficient was employed. The reliability coefficients for the fourth and fifth grades' reading tests were 0.87 and 0.90, respectively.

RESULTS

In this study, data analysis was carried out using SPSS Version 17.0. The results of the pre- and post-test for the Reading Skills Tests (Letter-Word Identification, Passage Comprehension and Reading Fluency) used in this study are presented in Table 2.

Table 2 reveals the means and standard deviation for the Letter, Fluency and Comprehension Scales of the pre-intervention programme and post-intervention programme. The table also shows that there is a significant difference in the post-test means of Letter-Word Identification, Fluency and Comprehension for the experimental and control groups of the selected dyslexic students.

Table 3 displays the multi-variate analysis of variance, before and after the treatment of Barton intervention programme. From the table, it was revealed that there was no statistically significant difference before the intervention programme; however, the results showed a statistically significant difference after the intervention programme. Similarly, the fact that Roy's and Hotelling's statistics are equal tells us that this particular effect is probably due to just one of the dependent variables is rather highly correlated. This can easily be checked by using the Analysis of Variance.

The results in Table 4 showed the sum of squares between the groups and within

TABLE 2
A comparison of the pre-test and post-test of reading skills

	Experimental group				Control group			
	Pretest		Posttest		Pretest		Posttest	
Test	M	SD	M	SD	M	SD	M	SD
Letter	42.25	9.92	53.61	9.38	42.46	10.9	42.76	11
Fluency	52.58	9.82	59.67	8.81	52.03	11.6	53.33	12.7
Comprehension	27.22	9.57	34.67	7.26	27.06	8.7	27.66	9.12

TABLE 3
Multi-variate Analysis of Variance for reading skills

	Pre-test			Post-test		
Test	Value	F	Sig	Value	F	p
Pillai's	.001	.019	.996	.971	6.311	.00
Wilks'	.998	.019	.996	.029	6.311	.00
Hotelling's	.001	.019	.996	33.215	6.311	.00
Roy's	.001	.019	.996	33.215	6.311	.00

TABLE 4
Analysis of variance for reading skills

Test	Pretest SS	df	MS	F	p	Posttest SS	df	MS	F	p
Fluency between groups	4.56	1	4.56	.04	.84	613.608	1	613.61	5.146	.027
Fluency within Groups	6770.515	59	114.75			7035.441	59	119.25		
Letter between Groups	.663	1	.663	.006	.938	1793.541	1	1793.5	17.26	.000
Letter within Groups	6387.402	59	108.26			6130.722	59	103.91		
Comprehension between Groups	.386	1	.386	.005	.946	749.346	1	749.35	11.05	.002
Comprehension within Groups	4947.287	59	83.852			4001.441	59	67.82		

the groups, df, the mean square between the groups and within the groups, F, and the statistically significant difference before and after the treatment of Barton intervention programme. This table also confirms the statistically significant difference after the treatment of Barton intervention programme (f= 5.146, 17.26, 11.05, p<0.027, 0.000, 0.002).

DISCUSSION

In this study, the following hypothesis was investigated: There is statistically a significant difference in the reading skills between the control group and the experimental group of the dyslexic students after the treatment of Barton intervention programme. Additionally, both groups were compared with each other with regard to reading phonics, reading comprehension and reading fluency variables. In this study, it was hypothesized that the experimental

intervention affected the reading phonics, reading comprehension and reading fluency. It appeared that the data analysis supported the hypothesis. Similarly, the results also showed that there was a significant difference in the reading skills of the experimental group (who received the treatment) and the control group. Apparently, the results are in line with several studies done in this area (e.g., Barton, 2000; Carnine *et al.*, 1990; DeFord, 1991; Rivers & Lombardino, 1998; Snow *et al.*, 1998). Likewise, these studies also revealed that the intervention programme caused reading comprehension to improve. Notably, dyslexic students need direct instructions of alphabet since teaching alphabet directly makes teaching of primary reading easier. Besides, the studies also showed that if multi-sensory methods were used in teaching the dyslexic students, their level of learning would increase (Barton, 2000; Orton, 1976). Most

dyslexic students have a lot of problems with phonetic skills and they cannot learn these skills as easy as other normal students. Multi-sensory methods, such as the Barton intervention programme, can improve the dyslexic children's reading skills. Using the Barton intervention programme, reading and spelling are taught at the same time. In addition, in this programme, the whole word was not used at the beginning of the course. Instead, the lesson began with the teaching of sounds, and this was followed by some parts of the words. The results of the recent studies on the importance of reading skills specify that intervention programmes are specifically significant in teaching dyslexic students to acquire reading skills. Thus, teachers can use such interventions to improve dyslexic students' reading skills. Intervention programmes are important since they provide the teachers the chance to exercise new methods. Therefore, it is emphasized in the intervention programmes that teachers should actively participate the activities concerning solving the children's problems in reading.

The results of this study revealed that there was a statistically significant difference in words recognized between the experimental group and the control group. Reading skills require the ability to recognize words. Thus, when readers develop facility in word recognition, they can focus on the meaning of the text. Without strengthening the primary levels of reading, the higher cognitive skills cannot function (Williams, 1998). If a reader exerts much of his/her effort in recognizing words,

less processing capacity will remain for his/her comprehension. Early recognition skills are of paramount importance since they can accurately predict later skills in reading comprehension. Students, who get off to a slow start, rarely become strong readers (National Reading Panel, 2000). Hence, early learning of word recognition leads to stronger reading abilities in school and out of school. Besides, reading a wide variety of materials provides readers the opportunities to increase their vocabulary, develop an interest in books and foster general reading growth (Lyon, 2003).

The results of this study also indicated that there was a significant difference in the reading fluency between the experimental group and the control group, after the treatment of Barton intervention programme. Fluency has been identified as a necessary link between word analysis and comprehension of a text. In addition, it is considered a basic tool in learning reading skills (Chall, 1983). Moreover, reading fluency is the ability to read connected texts rapidly, effortlessly and automatically (Hook & Jones, 2004). The importance of fluency and its essential role in building overall reading ability have only been highlighted recently (National Reading Panel, 2000). Readers must develop their reading fluency in order to build a bridge from word recognition to reading comprehension (Jenkins *et al.*, 2003).

Furthermore, the results revealed that there was a significant difference in reading comprehension between the experimental group and the control group,

after the treatment of Barton intervention programme. Reading comprehension is an active process which requires an intentional and thoughtful interaction between the reader and the text. As the reader tries to comprehend the material he/she reads, he/she must fill the gap between the presented information in the written text and the knowledge he/she possesses. Thus, reading comprehension skills involve thinking. The reader's background knowledge, interest and the reading situation affect the comprehension of the material. A reader integrates the new information in the text to what he/she already knows (National Reading Panel, 2000).

In the past decades, attempts had been made to improve dyslexia. In doing so, different theories have been posed in this regard. The fundamental basis of these methods is the multi-sensory method, which is applied to the teaching of reading skills. This method is called VAKT (i.e. visual, auditory, kinetics, tactile) that includes the proposed approaches of three founders of reading intervention, namely, Orton (1976), Fernald (1988) and Kirk (1976). The Barton method is based on Orton's theory. According to the results of this study, if this method was applied to the dyslexic students, whereby the majority of them could gain the necessary abilities to read. The findings indicated that Barton intervention programme was successful and caused the students in the experimental group to improve their reading skills. In a nutshell, it can be concluded that the Barton intervention programme is a suitable programme for teaching dyslexic students the skills of reading.

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The Use of Plants to Improve Indoor Air Quality in Small Office Space

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ABSTRACT

Exposure to volatile organic compounds (VOC) can cause a series of effects towards human health. VOC is also associated with Sick Building Syndrome and other building related illnesses. Common materials found in every home and place of business may cause elevated exposure to toxic chemicals. The aim of this study was to examine the best indoor plants that could be used to improve indoor air quality in a small office space. In this study, the concentration of VOC inside a room was monitored before and after the test, using Aeroquol Model S500 VOC Gas Detector and by using oil-based paint painted on a panel measuring 0.05 x 0.05 m in order to create a minimum of 3ppm of VOC. Three types of tropical indoor plants were used in this study; *Nephrolepis exaltata*, *Rhapis excelsa* and *Dracaena fragrans*. Data were monitored for eight hours at 10 minutes interval. The results showed no significant differences between the number of pots and the type of plants used in reducing VOC content in the real room environment. This was probably due to several factors, such as the interference of outside air and the condition of the experimental room. This experiment suggests that further experiments should be carried out in a controlled environment to improve our knowledge of how indoor plants can improve indoor air quality, and thus improve human health and well-being.

Keywords: Human health, indoor air quality, tropical indoor plants, volatile organic compounds (VOC)

INTRODUCTION

Media reports regarding air pollution have long been realized by the public. Awareness towards the quality of air that we breathe is important as people spend more than 80% of their daily life indoors (e.g. home, office, shopping malls and vehicles). Everyday, people are exposed to a certain level of toxic gases, both indoor and outdoor. However, outdoor air pollution has always been seen as the main problem regarding air quality; but due to changes of lifestyle, the indoor

air quality (IAQ) is also seen as a problem as well.

Acceptable temperature and relative humidity, controlled airborne contaminants and adequate distribution of ventilated air are some elements that promote good IAQ. Some examples of common indoor air pollutants include radon, carbon monoxide and ozone. One of the pollutions that is widely found indoors is VOCs. VOCs are organic chemical compounds that have high enough vapour pressures under normal conditions to significantly vaporize and enter the atmosphere. Many VOCs are human-made chemicals and used as industrial solvents. Some of VOC sources are formaldehyde and methane. Formaldehyde is found in many building materials, such as paints, adhesives and wall boards. Many VOCs are neurotoxic, nephrotoxic or hepatotoxic, or carcinogenic and many can damage the blood components and the cardiovascular system and cause gastrointestinal disturbances (Leslie, 2000). Indoor air pollution can even increase the

chance of long-term and short-term health problems for indoor occupants, reduce in productivity and degrade students' learning environment and comfort (Lee & Chang, 2000).

VOCs are emitted by various types of products that can be found indoors, such as paints and lacquers, cleaning agents, building materials and furnishings, office equipment like copiers and printers, correction fluids and carbonless copy paper, permanent markers, and photographic solutions. Table 1 shows some common emissions and their sources (Wolverton, 1997). However, VOCs did not only originate from internal sources but are influenced by outdoor sources as well (Ekberg, 1994).

People now build well-sealed homes and install insulation and other materials to conserve energy. This reduces movement of air through a building and increases the concentration of many indoor pollutants. Dependencies on air-conditioning and bad ventilation system worsen the condition and quality of the indoor air. There are several

TABLE 1
Some common emissions and their sources (Wolverton, 1997)

	Sources of Chemical Emissions				
	Formaldehyde	Xylene	Benzene	Alcohols	Acetone
Adhesives	√	√	√	√	
Carpeting				√	
Computer VDU screens		√			
Draperies	√				
Fabrics	√				
Office correction fluid					√
Paints	√	√	√	√	
Plywood	√				
Upholstery	√				

effects caused by poor indoor air quality and a common symptom associated with poor indoor air quality is the Sick Building Syndrome (SBS).

SBS is defined as a set of sub-clinical symptoms with no specifically identified cause. It is a collection of symptoms experienced when a person is exposed to high concentrations of certain gasses, specifically those living or working inside a building. The SBS symptoms include irritation in the eyes, blocked nose and throat, complaints in upper airways, headache, dizziness, sensory discomfort from odours, dry skin, fatigue, lethargy, wheezing, sinus, congestion, skin rash, irritation, nausea, difficulty in concentrating, fatigue and can even cause the occupants to be sensitive to odours (Gupta *et al.*, 2007).

The toxicity level of certain VOCs can be carcinogenic. Among other, formaldehyde has been long considered as a probable human carcinogen (Group 2A chemical) based on experimental animal studies and limited evidence of human carcinogenicity. However, the International Agency for Research on Cancer (IARC) reclassified formaldehyde as a human carcinogen (Group 1) in June 2004 based on the "sufficient epidemiological evidence that formaldehyde causes nasopharyngeal cancer in humans" (Zhang *et al.*, 2008). The chemical characteristic of VOCs indicates that these chemicals decline with time. Newer materials emit higher concentration of VOC. It was concluded that common materials found in every home and place of business may cause elevated exposures to toxic chemicals (Wallace *et al.*, 1987).

There are three common ways to improve indoor air quality; these include source control, good ventilation systems to exhaust contaminated air, and air cleaning. Other methods include phytoremediation, photocatalytic oxidation, adsorption and by using plants. Recently, using plants as a biofiltering system is widely advised. Plants not only serve as an ornament but they can also promote a better indoor air condition. This does not apply only to indoor environment but also the outdoor (Jim & Chen, 2008). Most plants transpire through their stomata. During the process, plants absorb indoor air pollution (Song *et al.*, 2007). Gaseous pollutants could be absorbed into plant tissues through the stomata, together with CO_2 in the process of photosynthesis, and with O_2 in respiration. After entering the plant, transfer and assimilation could fix the pollutants in the tissues (Jim & Chen, 2008).

Plants also have psychological effects on humans. A review suggests that indoor plants can and provide psychological benefits such as stress-reduction and increased pain tolerance (Bringslimark *et al.*, 2009). Despite the fact that many research has been carried out in this area (Oyabu, 2003; Raza, 1991; Song *et al.*, 2007), little emphasizes on the effectiveness of indoor plants in reducing indoor pollution in the tropical, as well as work done in real room or office environment. Therefore, this study was conducted to investigate the effectiveness of three different species and treatments of indoor plants in reducing indoor pollutants in real working or office environment.

MATERIALS AND METHODS

Characteristics of the Plants

The plants chosen for this study were divided into three categories of characteristics; palms, herbaceous and ferns. The selected plants were *Rhapis excelsa*, *Dracaena fragrans* and *Nephrolepis exaltata*. These plants were chosen to represent leaf characteristic groups. *Rhapis excelsa* represents the palm group, *Dracaena fragrans* represents the herbaceous group and *Nephrolepis exaltata* represents the fern group. The characteristics of the plants are shown in Fig.1 to Fig.3. All the three plants are known to have the ability to purify the air in a previous study (Wolverton, 1997) and are therefore suitable to be used as indoor plants. All plants were planted in a standard clay pot and the soil mixture used was the John Innes 3:2:1 compost. The soil mixture consisted of three parts of loam, 2 parts of peat and 1 part of sand. This soil mixture is widely used and it is known as a standard soil mixture for plants in Malaysia. Plants were randomly selected from a total of 10 plants from each group and divided into three different treatments (one, three and six pots). No plants were used for the control.

The Experimental Room

The experiment was conducted at the Landscape Research Laboratory, Faculty of Design and Architecture, Universiti Putra Malaysia. The room measures 0.3m width x 0.5m length x 0.3m height, with four window panes, a door and a personal air-conditioning unit. In order to imitate a real small office condition, the air-conditioning was set at 21°C, with a medium speed fan and lights were turned on during the experiment.

Measurement of VOC

The source of VOC came from a panel painted with oil paint. Oil-based paint was chosen because the emission rate

Fig.1: *Dracaena fragrans* (herbaceous plant group)

Fig.2: *Rhapis excelsa* (palm group)

Fig.3: *Nephrolepis exaltata* (fern group)

is slower as compared to water based spray paint. A few guidelines suggested a minimum of four hours to collect air sample (Environmental Protection Agency, 2007). For this experiment, however, the data were measured for a duration of eight hours, from 9.30 a.m. to 5.30 p.m., which are the standard working hours (Ministry of Human Resources, 2005).

Measurement of VOC was carried out using a hand-held data logging device Aeroqual 500 Series, with a maximum measurement limit of 25ppm. The relative humidity and temperature was recorded using the MC-83 Relative Humidity-Temperature meter. The recorded data will show if the temperature and humidity levels are within human comfort level. The

devices were placed in the middle of the room. Some previous experiments (*see* Wallace *et al.*, 1987; Chan *et al.*, 2009; Sohn *et al.*, 2007) indicated that the experimental device should be put between 1 meter to 1.5 meter above the floor level. However, according to the manufacturer of the device used in this experiment, the Aeroqual 500 Series, can be placed anywhere in the experimental room. Fig.5 shows the layout of the experiment.

Statistical Analysis

The one-way analysis of variance (ANOVA) and Fisher least significant difference (LSD) tests were used to determine the differences between the group of plants and the treatment used in reducing VOC concentration.

RESULTS AND DISCUSSION

From the analysis, no significant difference was found between the plants species and even the number of pots. Nonetheless, there were still decrements in the concentration of VOC. The results derived from the analysis are as follows:

TABLE 2
ANOVA test results for *Nephrolepis exaltata*

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	.016	3	.005	.322	.809
Within Groups	.333	20	.017		
Total	.349	23			

TABLE 3
ANOVA test results for *Rhapis excelsa*

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	.009	3	.003	.087	.966
Within Groups	.719	20	.036		
Total	.729	23			

TABLE 4
ANOVA test results for *Dracaena fragrans*

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	.024	3	.008	.440	.727
Within Groups	.362	20	.018		
Total	.386	23			

In general, however, a decrease in VOC was found in the number of plants, ranging from 70% to 77% in *Nephrolepis exaltata*, 63% to 72% in *Dracaena fragrans* and 75% to 81% in *Rhapis excelsa*, with the highest value recorded in 6 plants. From Table 5, and by disregarding the control treatment, *Rhapis excelsa* (3 pots) has the highest value (0.8078), while the lowest is *Dracaena fragrans* (1 pot), with a value of 0.6320. The decrement in the percentage of *Rhapis excelsa* (3 pots) is the highest (81%) as compared to other species and the numbers of pots. The lowest percentage is *Dracaena fragrans* (1 pot) with 63%.

When the results of the experiments with the plants and no plants (control) in the room were compared, the VOC concentration still seemed to decrease. This could be due to the interference of air
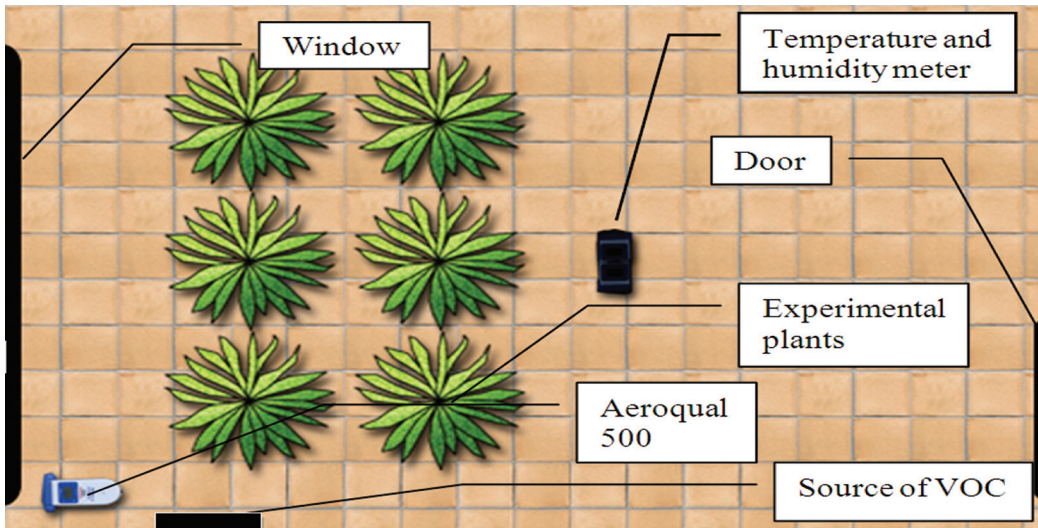
Fig.4: The experimental room

Fig.5: The layout of the experiment

Fig.6: The experimental devices

TABLE 5
Decrement value of VOC by plant species and treatment (data are means ± standard error)

Species	Treatment			
	1 pot	3 pots	6 pots	Control
Nephrolepis exaltata	0.70 ± 0.05	0.74 ± 0.07	0.77 ± 0.05	0.75 ± 0.04
Dracaena fragrans	0.63 ± 0.06	0.69 ± 0.07	0.72 ± 0.04	0.67 ± 0.05
Rhapis excelsa	0.75 ± 0.07	0.81 ± 0.07	0.77 ± 0.08	0.72 ± 0.09

which entered the room from outside (i.e. from beneath the door, windows and air-conditioning). VOC is not mainly reduced by plants but by dilution of air. According to Wallace *et al*. (1987), the concentrations of several VOCs (ethylbenzene, l,l,l-trichloroethane, xylenes) declined sharply over time, indicating that building materials or finishings (paints, carpets, adhesives, etc.) were likely the sources. Assuming a decline in emissions with age, the newer materials used in the chamber should lead to higher concentrations than in the building.

Based on the findings presented in the tables above, there is no significant difference between the numbers of pots in all the three species of plants used in the experiment. Each species was tested with several numbers of pots. 1 pot, 3 pots, 6 pots and control treatment were used to compare the plants ability in improving indoor air quality. From the results, the plant with the best ability to purify the air was *Rhapis excelsa,* with 3 pots in one room. This finding indicates that different types of foliage can influence the reduction of VOC.

According to Lohr (1992), plants can increase indoor relative humidity by releasing moisture into the air. During photosynthesis, the final products are glucose ($C_6H_{12}O_6$), oxygen (O_2) and water (H_2O).

Plants with large leaf surface area emit more water vapour during photosynthesis, and thus increase the humidity level in a space. Relative humidity can affect temperature. It gets warmer if the relative humidity increases (Swanson, 2006). According to Zhang *et al*. (2007), temperature is one of the environmental parameters that influences VOC emissions from building materials, together with air velocity and humidity (Wolkoff, 1998). Bremer *et al.* (1993), Cox *et al*. (2005) and Yang (1999) reported that the emitted substances were temperature dependant.

Meanwhile, the emission of formaldehyde from particle-board was also observed to be strongly dependent on relative humidity which has to be taken into account when examining these materials in climate chamber studies (Sollinger *et al.*, 1994). Therefore, the use of plants is not only to filter the air but can help maintain a good relative humidity and temperature in order to control airborne pollutants.

Previous research indicates that the plants, *Crassula portulacea*, *Cymbidium* Golden Elf, and *Hydrangea macrophylla*, have very high removal rates (60-80%) of the pollutant benzene (Liu *et al.*, 2007). On the contrary, no significant difference was found between all the three plant

species used in the experiment in this study. This might e due to the use of a real room condition. The previous experiments were mainly done in sealed gas chambers to test the plants' capability to purify the air. The chamber's size ranges from 1m³ (Raza *et al.*, 1995) to a set of four interconnected, cylindrical Plexiglas chamber measuring 40cm in diameter x 60cm tall (Liu *et al*., 2007) to 3.5 m x 3.5 m x 2.4m (Song, Kim, & Sohn, 2007). These chambers are air-tight, i.e. there is no outside air interference that can dilute the contaminated air.

This experiment was done in a real room environment. Even though the laboratory size used by Liu *et al*. (2007) is about the same as the experimental room used in this study, the reading of VOC may vary because the room used for the experiment is more airtight and has no ventilation system, whereas this study imitated the real personal office environment. Salthammer (1997, as cited in Guieysse *et al*., 2008), indoor VOC concentrations depend on the total space volume, the pollutant production and removal rates, the air exchange rate with the outside atmosphere, and the outdoor VOC concentrations. This also shows that different sizes of experimental room may give different VOC readings.

CONCLUSIONS

There have been a lot of changes in the world we live in today. The effects of global warming have caused people to spend more time indoors. Even outdoor activities have been brought indoors because of heat and polluted air. Technological advancements have caused people to be dependant to alternatives sources. Even though it positively improves the way of living, it can also negatively affect human health at the same time.

The issue regarding indoor air quality is of every field's concern. Architects, landscape architects and even interior designers must always put human health and comfort as priorities in their designs. Architects have been known to be the main persons in a building design process. Therefore, an architect must produce a good design, not only to beautify the building, but also to make it environmentally friendly for humans.

Similarly, ventilation system plays a big role as big offices depend on it to bring in fresh air. Natural aeration is always the best but issues, such as outdoor air pollution and safety in high buildings, often make it not possible. According to Wargocki *et al*. (2002), periodical air refreshing is often not efficient because many indoor air pollutants are constantly released. Hence, forced ventilation is still one the most common methods used for air treatment (Guieysse *et al*., 2008). A central air conditioning re-circulates air in order to save energy, but it also circulates airborne biological materials. There are numerous effects on health due to airborne biological materials. These include a range of infections and allergic diseases, such as extrinsic allergic alveoli, allergic rhinitis and asthma and perhaps even lung cancer (Leslie, 2000). A central air conditioning must be installed with some sort of device that can filter the air.

However, the filter system must be properly maintained because the filter is seen as the main pollution source (Bitter & Fitzner, 2002). At the same time, indoor air must be brought outside and fresh air from the outside be brought inside, provided that the outdoor environment allows a better outdoor air quality. In this study, the ventilation system is the main suspect for the null hypothesis.

Plants have always been seen as a good biological filter for both indoor and outdoor. They do not only serve as the green lung of the earth, but also bring physiological benefits to humans. The focus of this study was to identify which tropical indoor plant in Malaysia has better efficiency in improving indoor air quality. Nevertheless, only three plant species were experimented in this study. To provide further insights into how plants can reduce indoor pollution and improve our health and working environment, more plants need to be tested, and a more controlled environment is needed as well.

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A Systemic Functional Linguistic Approach to University Course Guides

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ABSTRACT

This article discusses the way the course guide construes content through language. It is one among many genres the university produces as it competes for student intake that provides student revenue. Yet, the course guide is crucial as it explains the university's faculties and programmes to students. It presents the university's portrayal of its central service to students, namely education. This shapes students' perception and decision about their future studies. Hence, the course guide is vital for the university's marketing endeavours. To understand the way the course guide uses language, this article studies 8 course guides from 5 faculties with a sum of 35 undergraduate programmes from UCSI University, Malaysia. Analysis was qualitatively conducted using Systemic Functional Linguistics, focusing on Process Type and Participants for Transitivity (Ideational Metafunction) and Topical Theme for Theme (Textual Metafunction). For Transitivity, the course guide prefers to portray the faculty, programme and students as Participants using Material and Mental Processes. For Theme, the course guide prefers to emphasize the faculty, programme, students and field as topics using Topical Theme. Hence, the course guide construes its discourse through both producer and consumers of tertiary education. This presents a view of UCSI University as striving to serve its students. It shows that the university is dynamic in providing education so that students are prepared for employment. This article also recommends some changes for the course guide to make it more convincing for readers.

Keywords: Systemic functional linguistics, transitivity, theme, course guide, university

INTRODUCTION

Malaysian Prime Minister, Najib Razak, launched an initiative termed 1Malaysia in 2009. 1Malaysia has eight aspirations and one of them is education. 1Malaysia believes that citizens should have an interest to acquire knowledge throughout their lives. This is important for individual development and national development because citizens with little knowledge cannot propel the knowledge-based economy that Malaysia requires. 1Malaysia should motivate

providers of education to mould students who can use and expand knowledge to benefit the country. Here, universities play a role since they train students for employment in industries that bolster the economy. This includes UCSI University. It is a private university centred in Kuala Lumpur that balances business with education because UCSI receives no government aid but UCSI provides many academic programmes. Hence, UCSI's ability to register students and to graduate students is important for its survival. While students are unlikely to leave UCSI after registering, it is a hard task to register students because there is a lot of competition among the private tertiary education institutions in Malaysia, besides public tertiary education institutions. This requires UCSI to market its programmes through various medium to ensure student intake. Among such medium is the course guide.

Students consult the course guide to know more about their programmes. Hence, the course guide is one among many genres that influences their decision to study in UCSI. In this vein, this article studies the way course guides use language to present UCSI's faculties and programmes. They are print media texts that also use colours and images but this article only analyzes language qualitatively through the approach of Systemic Functional Linguistics, studying the Ideational Metafunction through Transitivity and the Textual Metafunction through Theme. This is in line with critical discourse analysis that aims to clarify the opacity in language (Blommaert & Bulcaen,

2000, p. 448) to decipher the way the course guide conveys meaning to readers through language to influence them. Understanding language use provides a way to understand a genre. This means identifying the linguistic choices and justifying the linguistic choices the course guide employs to present UCSI's faculties and programmes. Yet, these choices need not be formulaic because genres, composed of language, are not static (Bhatia, 1993). Change should be proposed to the language in the course guide so that it better embodies UCSI's core concerns of business endorsing the faculties, and education, describing the programmes - as this article does. This research is useful for universities in marketing their programmes, as marketization is now a trend in tertiary education (Fairclough, 1993).

UCSI UNIVERSITY

UCSI's precursor was the Canadian Institute of Computer Studies in 1986 that became Sedaya College in 1989. It expanded to become Sedaya International College in 2001 and University College Sedaya International in 2003. Finally, in 2008, it became UCSI University. This promotion in status matched the increase in the programmes at UCSI's main campus in Kuala Lumpur and branch campuses in Terengganu and Sarawak, as future expansion is designed and executed, notably a new campus in Negeri Sembilan. Today, UCSI hosts 11 faculties, 2 academies and 2 centres that provide tertiary education from A-Level to PhD in diverse fields ranging from arts to sciences. UCSI thrives in

diversity with employees and students of many ethnicities, nationalities and religions.

REVIEW OF LITERATURE

Fairclough (1993) studied the prospectus and programme material from Lancaster University, and concluded that these genres are hybrid genres because their language is informational and promotional. This showed the trend of marketization of discourse in tertiary education. It refers to universities functioning as if they are businesses that have to gain and retain customers (Fairclough, 1993, p. 143). This is ingrained in UCSI as it is a business for profit that provides tertiary education. Fairclough (1993, p. 137) writes that a diachronic study should be the focus of analysis to enable understanding and changing discourse but this article believes that a synchronic study is also useful to comprehend one discourse from other parts of the globe as tertiary education becomes globalized. Whatever its locus, the analysis should result in improving a genre. Clearly, such analysis serves marketization and this need not be considered negative because an improved course guide will persuade students to study in UCSI, bringing student revenue.

Fairclough's (1993) marketization of discourse in tertiary education inspired Askehave (2007) and Hajibah (2008), who studied student prospectuses. Askehave (2007) and Hajibah (2008) concluded that marketization was a given trend in universities. This means that universities around the globe marketing themselves is normal in tertiary education, as they adopt the logic of capitalism to be profitable by supplying students' demand for tertiary education. Both Askehave (2007) and Hajibah (2008) provided the generic structure for prospectuses but Askehave's (2007) generic structure had 6 compulsory moves while Hajibah's (2008) generic structure had 10 compulsory moves, implying possible cultural features in generic structures. While the generic structure provides a template for writing, it cannot elucidate the way each move uses language to convey its function. Hence, this article does not provide the generic structure for the course guide. Being from UCSI, all course guides also share the same generic structure.

To overcome the generic structure's constraint, Askehave (2007) and Hajibah (2008) did a linguistic analysis. Askehave (2007) used Systemic Functional Linguistics (SFL), studying Transitivity (Ideational Metafunction) and Mood (Interpersonal Metafunction) for the university and students, while Hajibah (2008) studied the language used to present the universities. Both researchers also studied the non-linguistic aspects of prospectuses, Askehave (2007) for pictures and Hajibah (2008) for emblems, showing that image is also influenced by marketization. Such research showed that the language in the prospectus is informational and promotional. This article does not argue with this claim but it is now crucial to study the choices in language that make it informational and promotional. This adds to research on genres produced by universities, but unlike the prospectus, the course guide is more specific because

it focuses on the faculty and programme and contains little information about other aspects, unlike a prospectus. Besides, this article complements Hajibah's (2008) research on public universities in Malaysia by studying a private university in Malaysia.

METHODOLOGY

UCSI depends on revenue from students for its development. Thus, having facilities, lecturers and programmes is not enough because they have to be marketed so students know about them. Much marketing is done through electronic media but print media remains popular. This includes the course guide. Its pages consist of primary content about the faculties and programmes and two pages of secondary content about the university. All course guides have the same generic structure because they are produced by UCSI.

This article chose the course guide because it is an authorized source about the faculties and programmes, showing UCSI's portrayal of itself. Hence, the course guide construes UCSI's faculties and programmes as *the* choice for students. The course guide is available in campus and student marketing events that exposes it to its external audience of (prospective) students and other parties interested in their education, notably parents. Also, there are no known ethical and legal obstacles to study the course guide.

Thus, this research question is forwarded: How is language used to construe content about faculties and programmes in course guides from UCSI? To answer this research question, a corpus of course guides was produced. Note that only course guides for undergraduate programmes were chosen since these programmes receive the majority of registration that brings the most income

TABLE 1
Contents of Corpus of Course Guides

Faculty	Number of Pages	Number of Programmes	
		Bachelor	Diploma
Applied Sciences (FAS)	12	2	0
Engineering, Architecture and Built Environment-School of Architecture and Built Environment (FOEABE)	12	2	2
Engineering, Architecture and Built Environment-School of Engineering (FOEABE)	24	7	1
Management and Information Technology-School of Information Technology (FOMIT)	12	3	1
Management and Information Technology-School of Management (FOMIT)	20	5	2
Medical Sciences (FMS)	16	2	1
Music, Social Sciences and Design-School of Music and School of Design (FOMSSD)	16	4	0
Music, Social Sciences and Design-School of Social Sciences (FOMSSD)	16	3	0

to USCI, making marketing undergraduate programmes vital for UCSI. The corpus had 8 course guides from 5 faculties to represent the language in course guides. This meant that redundancy was achieved for the corpus, as well as manageability. Its details are condensed in Table 1.

Not the whole corpus was examined; only the sections about the faculties and programmes were chosen because these sections cover almost the entire course guide. These sections were analyzed using Systemic Functional Linguistics (SFL). Being a theory of language, SFL can be used to analyze language from any genre, from annual report (Thomas, 1997) to election manifesto (Idris, 2009) to textbook (Oteíza & Pinto, 2008), among others. SFL considers language as a resource to make meaning (Halliday & Matthiessen, 2004). This meaning is the result of choices, not always conscious (Halliday & Matthiessen, 2004) that users make. Their choices articulate certain ideas through a language's Ideational, Interpersonal and Textual Metafunctions.

The Ideational Metafunction is divided into Experiential Mode that construes experience in clauses and Logical Mode that construes relations with clauses (Halliday & Matthiessen, 2004, p. 61). The Interpersonal Metafunction enacts social relations among sender and receiver through clauses (Halliday & Matthiessen, 2004, p. 61). The Textual Metafunction links the Ideational Metafunction and the Interpersonal Metafunction in clauses and with clauses to enable constructing texts (Halliday & Matthiessen, 2004, p. 30).

Transitivity from Ideational Metafunction and Theme from Textual Metafunction were chosen because they influenced the representation and organization of content respectively, about the faculties and the programmes. This requires studying the clause because the three metafunctions are integrated in it (Halliday & Matthiessen, 2004). The Ideational Metafunction, consisting of Mood, was excluded because all the course guide's clauses were declarative clauses. This means that the clause's Subject is Theme (Halliday & Matthiessen, 2004, p. 163) most of the time, making studying Mood redundant.

To enable the analysis, the corpus was divided into clauses. Then, the clauses had their Transitivity and Theme separately labelled. From here, the frequency of the components of Transitivity and Theme was counted. Any Systemic Functional Linguistic analysis reveals a lot of details about a text. As such, this article presents data most relevant to answer the research question since concern for space disables a complete presentation of data.

DISCUSSION

Transitivity

Transitivity belongs to SFL's Ideational Metafunction. It construes a domain of experience through Process Type, Participant and Circumstance (Halliday & Matthiessen, 2004). Process Type is realized by a verbal group while Participant is often realized by a nominal group and Circumstance is often realized by an adverbial group or a

prepositional phrase. There are three major Process Types, namely Material, Mental and Relational and three minor Process Types that exist at the border of the three major Process Types, namely Behavioural, Existential and Verbal (Halliday & Matthiessen, 2004, p. 171). Each Process Type has its respective Participant but Circumstance is shared by all Process Types. Studying Transitivity is more detailed if Participant is included. This is because Participant is directly involved in Process Type but Circumstance just augments the information about Process Type and Participant, making Circumstance indirectly involved in Transitivity (Halliday & Matthiessen, 2004).

The choice of Process Type and Participant provides an understanding of the way UCSI represents its faculties and programmes. Tables 2 and 3 tabulate the frequency of Process Type for the faculties and programmes. Material, Mental and Relational Attributive Process Types are common Process Types for the course guide. Such consistency across the corpus indicates that these Process Types are integral to the course guide genre.

The choice of verbal group as Process Type is not always denotative but connotative as the faculty and programme are involved

in positive events, at times with a customer-oriented focus:

> …it **has distinguished** itself…
> (FAS)
> The School of Nursing **offers**…
> (FMS)

Material Process amounts to 44.4% for the faculties and 41.7% for the programmes. It is the most frequent Process Type, showing that the course guide is mostly concerned with some sort of action. Such action is mostly performed by the faculty or programme because they enable students' education. They are given the responsibility of educating students, explaining their function as Actor, as in:

> …**the faculty** provides its scholars…
> (FOEABE)
> **This programme** provides students…
> (FOMIT)

Students are common as Actor because the course guide shows the things they do while studying in UCSI. This shows students being involved in their education instead of being pawns directed by the faculty of programme. Such involvement is related to their academic or personal abilities, for example:

TABLE 2
Process Types for sections about Faculties

Process Type	FAS	FOEABE	FOMIT	FMS	FOMSSD	Corpus
Material	35.3%	43.8%	48.3%	53.8%	38.9%	44.4%
Relational Attributive	52.9%	37.5%	31.0%	30.8%	38.9%	36.1%
Mental	17.6%	6.3%	20.7%	7.8%	22.2%	14.8%
Relational Identifying	-	6.3%	-	7.7%	-	2.8%
Verbal	5.9%	6.3%	-	-	-	1.9%

TABLE 3
Process Types for sections about Programmes

Process Type	FAS	FOEABE	FOMIT	FMS	FOMSSD	Corpus
Material	45.5%	41.5%	47.1%	41.9%	34.3%	41.7%
Mental	18.2%	33.6%	23.1%	25.8%	37.4%	30.3%
Relational Attributive	30.3%	22.1%	24.8%	32.6%	24.2%	24.4%
Relational Identifying	6.1%	2.8%	3.3%	-	2.0%	2.8%
Verbal	-	-	1.7%	-	2.0%	0.8%

> **Students** will work…
> (FOMIT)
> …**students** develop…
> (FOMSSD)

Most clauses have an explicit Actor but some clauses have an implicit Actor by being receptive clauses (Halliday & Matthiessen, 2004, p. 182). These clauses focus on the Goal because the result of acting is more important than the entity acting:

> **The Faculty of Applied Sciences** was formed in 1999…
> (FAS)
> **The Psychology degree programme** is constructed…
> (FOMSSD)

Mental Process amounts to 14.8% for the faculties and 30.3% for the programmes, using verbal groups of cognition and desideration, as education is considered to be a 'rational' quest. The faculty and programme are positioned as Sensers although they cannot feel, perceive, think or want (Halliday & Matthiessen, 2004, p. 201). Yet, the course guide endows them with consciousness so that the faculty and programme have a sense of self. This portrays the faculty and programme not as a set of inert criteria but as entities with an interest in students. This makes the faculty and programme focus on students, as if student satisfaction guides their plans. Moreover, Mental Process influences Material Process since it implies the things the faculty and programme do are the result of prior planning, showing their commitment to their duties. For example:

> Its philosophy **envisages**…
> (FOEABE)
> The School also **aims**…
> (FMS)

Note that the programme uses Mental Process more than the faculty. This is probably because teaching and learning happen through the programme, so the programme depends more on Mental Process to explain this, while the faculty just provides the programme. The choice of verbal groups for Mental Process can also show that the faculty and programmes are confident in their abilities in educating students:

> The Faculty of Applied Sciences **prides** itself…
> (FAS)
> The psychology degree programme **seeks** to develop…
> (FOMSSD)

Students appear as Senser very frequently. Generalizing them enables the course guide to cover students from varied fields and positioning them as students and not potential students shows that UCSI 'knows' or can predict student's expectations from tertiary education, and UCSI subsequently satisfies these expectations. With students as Senser, the course guide shows students' cognition or perception improving because of studying in UCSI, with help from the faculty or programme:

> Students **learn**…
> (FOEABE)
> …they [students] **have studied**…
> (FOMSSD)

Relational Attributive Process amounts to 36.1% for the faculties and 24.4% for the programmes. Its use is inevitable because the course guide describes the faculty and programme. To avoid monotony, the faculty and programme have been made active through Material Process and Mental Process. Relational Attributive Process provides more details about the character and component of the faculty and programme. The faculty or programme is the Carrier while their character or component is the Attribute. This enables the course guide to make claims about studying in UCSI, simultaneously judging the faculty and programme positively. Hence, both information and promotion can be found in Attribute. For example:

> UCSI University's Faculty of Management and Information Technology has **the highest academic standards**…
> (FOMIT)
> …this programme offers **a broad view of logistics**…
> (FOMIT)

Students become Carrier if the course guide describes them, either before or after studying in UCSI. This contrast shows that CSI transforms students by providing them abilities required for employment. Yet, students are infrequent as Carrier but frequent as Actor and Senser. Using Material Process and Mental Process, instead of Relational Attributive Process represents students as dynamic, being interested in their education. Clearly, this is UCSI's optimistic portrayal of its students.

Among the Participants, the faculty, programme and students frequently co-construct the experience of studying in UCSI. Yet, the course guide's audience is often students and it acknowledges students through its discourse. Its discourse portrays UCSI as centred on its students, its customers. This is done explicitly if students become the Participant but this is also done implicitly if the faculty and programme are the Participants. Thus, the faculty and programme are presented in terms of their value to students' education or employment, as in:

The MD curriculum is based on the globally acclaimed…
(FMS)
This programme covers recent advances…
(FOMIT)

To make a comparison, the course guide construes UCSI through non-human Participants but not students, who are human Participants. Bear in mind that the faculty and programme function because of individuals in them. Yet, the faculty and programme are always Participants although it is academics that are at the heart of both the faculty and programme. This possibly lets the course guide to appear objective because non-human Participants are not expected to be biased about the faculty or programme. This also lets UCSI to communicate with one voice, that of solidarity among its constituent entities. Choosing the faculty or programme as the Participant portrays a group identity in which all individuals work in unison to provide the university experience to students.

Other Participants are related to the domain of education and employment. By having Participants about education and employment, the course guide links these domains, making tertiary education a preparation for employment. It posits UCSI training students with abilities the industry requires and this training is to be found at UCSI through its faculties and programmes. Thus, education is positioned not as an end in itself but to produce graduates ready for employment.

Theme

Theme belongs to SFL's Textual Metafunction. It is the clause's point of departure that extends until and includes the first element with an experiential function while everything after it becomes Rheme (Halliday & Matthiessen, 2004). There are three types of Theme, namely; Topical, Interpersonal and Textual. Topical Theme is either unmarked or marked. The Subject is Theme in unmarked Topical Theme while the Adjunct or the Complement is Theme in marked Topical Theme (Halliday & Matthiessen, 2004, p. 73). Interpersonal Theme shows the writer's stance towards the clause's information, while Textual Theme connects a clause with other clauses (Halliday & Matthiessen, 2004, p. 83).

There are 26 Textual Themes for the faculties and 126 Textual Themes for the programmes. This is often conjunction that continues the discourse. There is no Interpersonal Theme for the faculties and programmes. This shows that the course guide tries to be objective by avoiding evaluations about the faculty and programme to make the course guide a source of apparently unbiased information. Yet, this is only true for Theme because Rheme contains evaluations about the faculty and programme. It expands the Theme and contains evaluations about the Theme as it describes the faculty and programme, blending information with promotion. There is no need for Interpersonal Theme as evaluations are available in the Rheme. Hence, the course guide's evaluations are not signalled. Having thematized evaluations

through Interpersonal Theme shows that the course guide is clearly endorsing UCSI. This perhaps reduces reliability since the course guide is merely expected to inform about and not to promote the faculty and programme.

Topical Theme is used abundantly. Tables 4 and 5 tabulate the frequency of the topics as Topical Theme for the faculties and programmes. This provides the topical distribution for the course guide.

There is little use of marked Topical Theme; the faculties using 4 and the programmes using 18, meaning that there is little condition set to understand the clause's information, making it seem direct. This enables most Subjects to be mapped onto Theme through unmarked Topical Theme that indicates the clause's topic to readers. Using unmarked Topical Theme provides a topic that the Rheme expands. This guides reading because a topic in Theme is explained through Rheme. Yet, these topics are not always directly Topical Theme because anaphora enables them to be indirectly Topical Theme. Through anaphora, a topic can transcend clause boundaries, maintaining its position as Theme for more than one clause, so it

provides more information about the faculty or programme, as in:

> **This programme** encompasses... **It** will enable…
> (FOMIT)
> **The Diploma in Nursing** is… **It** prepares…
> (FMS)

Topical Theme about the faculty is the main topic for the faculties (46.5%), while Topical Theme about the programme is the main topic for the programmes (44.5%). This is because the course guide is meant to describe the faculty and programme and satisfy students' expectations about the course guide's content. Yet, there are other topics as Topical Theme. They are related to the main topic and show the way the faculty and programme transfer knowledge to students to make them ready for employment. This makes the faculty and programme relevant to the world beyond UCSI.

This is seen from Topical Theme about students (19.7% for faculties and 21.2% for programmes). Students are used as Topical Theme while the benefits they gain during the programme are Rheme. Here, the course

TABLE 4
Topical Theme for sections about Faculties

Topic	FAS	FOEABE	FOMIT	FMS	FOMSSD	Corpus
Faculty	33.3%	100%	44.4%	36.8%	38.5%	46.5%
Student	16.7%	-	16.7%	31.6%	23.1%	19.7%
Programme	50%	-	5.6%	21.1%	7.7%	16.9%
Teaching	-	-	11.1%	-	15.4%	5.6%
Activities	-	-	-	5.3%	15.4%	4.2%
Others	-	-	22.2%	5.3%	-	7.0%

TABLE 5
Topical Theme for sections about Programmes

Topic	FAS	FOEABE	FOMIT	FMS	FOMSSD	Corpus
Programme	23%	34.2%	61.3%	63.2%	50.9%	44.5%
Student	27%	17.5%	22.6%	10.5%	28.3%	21.2%
Field	50%	20.2%	16.1%	-	13.2%	19.3%
Professional	-	17.5%	-	5.3%	-	7.7%
Department/School	-	5.3%	-	15.8%	3.8%	4.0%
Others	-	5.3%	-	5.3%	3.8%	3.3%

guide is inclusive because students become a part of its discourse. With students as Topical Theme, the perspective shifts to students' experience of the faculties and programmes. This shows a need to make the faculty and programme relevant to students so that they know the benefits of studying in UCSI. For example:

Students learn about…
(FOEABE)
Students gain exposure to...
(FOMSSD)

Topical Theme about teaching and activities are minimal for the faculties. It provides extra information about the faculty and can be considered more promotional than informational because the faculty has to be distinguished from competitors, not through standard academic criteria but through extra-value criteria.

Topical Theme about field is 19.3% of Topical Theme for the programmes. This often starts the sections about a programme because it gives a general picture of an industry before Topical Theme about programme posits the programme as satisfying industry demands, as in:

Biotechnology is… **It** is widely regarded… **Biotechnology** is… **The 3-year programme** was designed…
(FAS)
Interior Architecture explores… **interior spaces** are inhabited… **The programme** embarks…
(FOEABE)

Field as Topical Theme shows that the programme satisfies industry demand, explaining its value to industry. Yet, this Topical Theme is an inanimate description of an industry. Thus, to humanize it, professional as Topical Theme is used as an animate description of an industry. This Topical Theme is only available in FOEABE and FMS since these faculties produce engineers, doctors and nurses, reflecting society's regard for these careers with prestige. FOEABE and FMS can use professional as Topical Theme since their graduates have more specialized occupational options than those from other faculties.

The topical distribution shows a consistency of Topical Theme across the corpus, as shown in Tables 4 and 5. The field of each faculty and programme is not

the same but their description in the course guide refers to the same topics since all course guides want to interest students to study in UCSI. Hence, the genre influences the choice of Topical Theme across the varied fields of study. Yet, the order of Topical Theme is not the same for the faculties and programmes. This is because the course guide's writing is done by many people, each with their own writing styles, alluding to personal or editorial choices in sequencing the topics for the course guide.

Suggestions

Any analysis should not only expose language use but also improve language use as well, as advocated by critical discourse analysis (Blommaert & Bulcaen, 2000, p. 449). Thus, some changes are proposed for the course guide. Minor language mistakes must be corrected as they portray an unprofessional image of UCSI. For sections about the faculty and programme, using human Participants could humanize the faculty and programme. These sections could include academics or their achievements in teaching and research. It is commendable to include students as Participant but they could be referred to directly, using 'you' instead of 'students' to personalize the course guide, as they are its frequent readers.

For sections about the faculty, Topical Theme about programme should be avoided as there are separate sections about the programme. Instead, sections about the faculty should be about its reputation. It is also advisable to have some Topical Themes

about the faculty's non-academic activities as tertiary education is expected to develop students' academic and non-academic abilities. Moreover, it is useful to vary the clause's Mood. Instead of continuous declarative clauses, the course guide could use interrogative clauses and declarative clauses, through the familiar question and answer pair to engage readers, as well as to enable them to skim the course guide for pertinent content. These changes could improve the course guide. Being aware of the course guide's discourse might aid in presenting UCSI favourably. This is useful for academics and professionals as they can use Transitivity and Theme in their teaching and writing to produce more reader-oriented course guides.

Yet, this does not exhaust research for the course guide. Future research could use a larger corpus as well as study other aspects. Of interest are UCSI's opinions about its faculties and programmes that Appraisal (Martin & Rose, 2003) can tease out. Also, a multisemiotic analysis (O'Halloran, 2008) of colours and images with language that provides a deeper understanding of the way meaning is conveyed in the course guide could follow this article. These ideas could be extended to course guides from other tertiary education institutions, public or private, Malaysian or non-Malaysian. Such research undoubtedly serves marketization by helping universities position themselves better in the media. They can increase their income as they interest more students to pursue tertiary education. Such income can then be used to improve services to benefit students.

CONCLUSION

The research question posed was: How is language used to construe content about faculties and programmes in the course guides from UCSI? This was answered through an analysis of Transitivity and Theme from Systemic Functional Linguistics for 8 course guides from 5 faculties, with a total of 35 undergraduate programmes. For Transitivity, the frequency shows that the course guide prefers Material, Mental and Relational Attributive Process Types and the faculty, programme and students as Participants.

Mental Process makes the faculty and programme conscious of their academic ability and responsibility that come to fruition through Material Process, while Relational Attributive Process describes the faculty and the programme. The faculty and programme seem dynamic through the dominance of Material and Mental Processes. This posits UCSI as taking an active interest in providing quality tertiary education. Besides, students are frequent Participants of Material and Mental Processes. This shows that the course guide is aware of their expectations and presents studying in UCSI as beneficial for students.

For Theme, Textual Theme brings cohesion while no Interpersonal Theme is used and the frequency for Topical Theme shows a preference for the faculty, programme, students and field as topics. Such Topical Theme is then explained in the Rheme. The consistent use of these components of Transitivity and Theme across the corpus indicates their generic feature for the course guide. This complements the generic structure as certain moves might be prone to use certain components of Transitivity and Theme.

The choice of Transitivity and Theme shows that information and promotion about the faculties and the programmes is construed by both producer - UCSI and consumer - students. This confirms the marketization of discourse in the tertiary education (Fairclough, 1993) for the course guide. Its use of language is motivated to market UCSI as serving students explicitly and industry implicitly, as UCSI provides education useful for employment. It also indicates that studying in UCSI gives students the abilities they need to pursue their careers. Student revenue is gained if such claims convince students and they register in UCSI. Moreover, it points to a change in the role of the university as tertiary education is now meant to prepare students for specific employment. Hence, the course guide's discourse cannot be one-sided but includes students to show them that studying in UCSI is beneficial not only on university's own merit but also on the employability of its students. It provides students with the knowledge that can be used to develop Malaysia, in line with 1Malaysia's aspirations.

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Acquisition of Third Person Personal Pronouns by L1 Malay Speakers

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ABSTRACT

This study investigates the acquisition of English third personal person pronouns (henceforth third person pronouns) by first language (L1) Malay learners. The theoretical framework adopted for the study is the Failed Functional Features Hypothesis (FFFH) (Hawkins & Chan, 1997) which claims that second language (L2) learners who begin the task after a particular period of time will not be able to acquire the L2 property and its associated functional features if these have not been instantiated in the learners' L1. Specifically the aim of this study is to find out to what extent the learners of three different age groups and matched levels of proficiency are able to acquire the English third person pronouns and their associated features (gender, case and number). One hundred and fifty (50 elementary, 50 intermediate, 50 advanced) L1 Malay speakers participated in the study. Two instruments, the Oxford Placement Test (OPT) and a Grammaticality Judgment Task (GJT), were administered to the respondents. The OPT was used to determine the proficiency level of the respondents. The main task, i.e. the GJT, comprised 72 items (both grammatical and ungrammatical) on third person pronouns, tests the respondents' knowledge on gender, case and number. The data obtained indicated that the learners in the elementary group had the most difficulty in the acquisition of the items tested, followed by the intermediate and the advanced groups, respectively. This indicates that the learners go through developmental stages of acquisition. Overall, the learners' performances for the grammatical items were better than the ungrammatical items even at the advanced level, implying that at ultimate attainment, they were not able to reach native-like competence. This could be due to the parametric differences between the two languages for the grammatical property being investigated.

Keywords: L1 Malay speakers, Malay, English third person personal pronouns, second language acquisition

INTRODUCTION

There are two issues in second language acquisition (SLA) that have remained unresolved and they are; (i) determining second language learners' knowledge of

grammar, and (ii) explaining its development over time (Lakshmanan & Selinker, 2001). SLA researchers have tried to provide explanations by means of various hypotheses based on Universal Grammar (UG). One such hypothesis is the Failed Functional Features Hypothesis (FFFH), proposed by Hawkins and Chan (1997), which argues that second language (L2) learners only have partial access to UG beyond a critical period of learning. The FFFH claims that while principles that are universal remain operative for L2 learning, parameters that differ from the learners' L1 setting may not be available. As such, learners are said to have to reanalyze their input to fit their L1 settings. In such circumstances, learners are most unlikely to be able to achieve a competence level that is at par with native speakers. Other researchers (see for e.g., Bley-Vroman, 1989; Leung, 2003) thus argue that in second language acquisition (SLA), there is no parameter resetting. In view of this, it will be interesting to test the FFFH by investigating the acquisition of third person pronouns by L1 Malay speakers. This would include examining the features associated with the pronouns. In so doing, we would be able to determine the extent to which principles and parameters are available for L2 acquisition. In his Government and Binding theory, Chomsky (1981, 1986a, 1986b, cited in Mitchell & Myles, 2004, p.54) argues that principles are unvarying and apply to all natural languages while parameters have a limited number of open values which characterize differences between languages (parametric

variation). In his Minimalist Programme, Chomsky (1995, 2000, cited in Mitchell & Myles, 2004, p. 54) further explains that human languages are stored in the lexicon (word store) which consists of two categories; (1) lexical categories and (2) functional categories. Parametric variation is located in the functional categories within the lexicon. They are characterized by functional features that vary from language to language, causing differences in phenomena, such as word order and morphology.

So far, no studies as yet have been conducted in the acquisition of third person pronouns using the FFFH framework in the Malaysian context. However, there are a number of studies on the acquisition of third person pronouns in the field of SLA in general. Some studies have focused mainly on morphological aspects and the distinction between person, number, gender, and case (e.g., Anderson, 1998; Brown, 1973; Chiat, 1981; Deutsch & Pechman, 1978; Huxley, 1970; Kaper, 1976). Research has also been conducted on children's ability to master the deictic aspects of first and second person personal pronouns, which present special learning difficulties because of the unique way they are used for referring to speaker and listener (e.g. Bates, 1990; Budwig, 1989, 1995; Charney, 1980; Loveland, 1984; Smyth, 1995).

The definition of personal pronouns in the study is based Kaplan's view (1995). In defining personal pronouns, Kaplan (1995) argues that first and second person personal pronouns (henceforth second

person pronouns) do not fit the definition of pronouns as they do not replace nouns. For instance, if we were to construct a sentence where the person, 'Rose', were speaking and if we tried to replace 'Rose' with the first person personal pronoun 'I', it would be grammatically incorrect: *'Rose left early because I was anxious to get home before dark'. 'Rose' cannot be the antecedent for 'I'. Therefore, Kaplan (1995) claims that first and second person pronouns do not have antecedents and should not be considered as personal pronouns. Kaplan further explains that it is only because of their morphological similarity to third person pronouns that first and second person pronouns are considered as pronouns. Thus, based on this perspective, this study only investigates the acquisition of English third person pronouns by L1 Malay speakers.

According to Börjars and Burridge (2010, p.52), English third person pronouns have properties of person, number and case. These properties define the morphological and semantic aspects in English third person pronouns. The notion of gender in English today is related to biological sex. However, anecdorial observations have revealed that learners often have difficulty with this notion as well. As such, it is included in the study. Table 1 below summarises the English third person pronouns.

In Malay, personal pronouns are known as *kata gantinama diri*. Nik Safiah Karim *et al*. (2008, p. 102) claim that Malay personal pronouns are divided into first personal person pronouns (henceforth first person pronouns) (*kata ganti nama diri orang pertama*), second person pronouns (*kata ganti nama diri orang kedua*) and third person pronouns (*kata ganti nama diri orang ketiga*). Fig.1 summarises the subclasses of Malay pronouns (*kata gantinama)*.

In Fig.1, *kata ganti nama diri orang* is categorized as a subclass of *kata ganti nama diri,* which in turn, is a subclass of *kata ganti nama*. Under the category of *kata ganti nama diri orang* are *kata ganti nama diri orang pertama* (i.e. first person pronouns), *kata ganti nama diri orang kedua* (i.e. second person pronouns) and *kata ganti nama diri orang ketiga* (i.e. third person pronouns).

TABLE 1
Properties of English Third person pronouns

THIRD PERSON PRONOUNS				
NUMBER	Singular			Plural
GENDER / CASE	Masculine	Feminine	Neuter	All Genders
Nominative	He	she	It	they
Accusative	Him	her	It	them
Possessive: Attributive	his	her	its	their
Absolute	his	hers	its	theirs

(Adapted from Börjars & Burridge, 2010, pp. 52 – 54; Huddleston, 1989, p. 287)
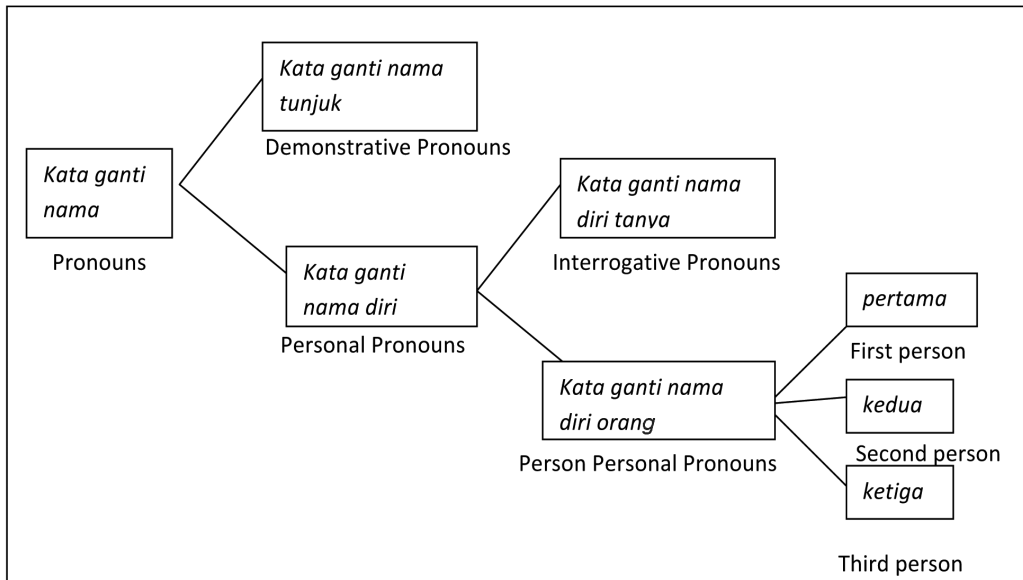
(Adapted from Nik Safiaah Karim *et al*., 2008: 102)

Fig.1: Subclasses of Malay Pronouns

TABLE 2
Properties of Malay Third person pronouns

THIRD PERSON PRONOUNS				
NUMBER	Singular			Plural
GENDER CASE	Masculine	Feminine	Neuter	All Genders
Nominative	*dia, ia* he	*dia, ia* she	*ia* it	*mereka* they
Accusative	*dia* him	*dia* her	*ia* it	*mereka* them
Possessive	*dia, -nya* his	*dia, -nya* her, hers	*ia, -nya* its	*mereka* their, theirs

For ease of comparison, Malay third person pronouns are mapped on to the gender, case and number features of personal pronouns in English, as presented in Table 2.

While English third person pronouns indicate number and case features overtly, only the number feature is obvious in the Malay language. The notion of gender is also overt in English singular third person pronouns (he, her, it). In the Malay language, gender takes on a more general form without differentiating between masculine and feminine gender. This can be seen in the example of the third person singular pronoun *dia/-nya*. The pronoun *dia/-nya* can refer to either 'he', 'she' or 'it' in English. Thus, *dia/-nya* poses ambiguity of gender.

Case is also not overtly shown in the Malay third person pronouns. As shown in Table 2, it is difficult, if not possible, to differentiate case in Malay third person pronouns when they occur in isolation. The following sentences exemplify this point:

i. Nominative case :
   Mereka bawa beg ke sekolah.

   3PP Nom[1] bring bag to school

   They brought their bags to school.

ii. Accusative case :
    *Cikgu Ali selalu menasihati **mereka** supaya rajin belajar*.

    Teacher Ali frequently advise 3PP Acc[2] so that industrious study

    Mr Ali frequently advises them to study hard.

iii. Possessive case :
     *Jangan sentuh beg **mereka**!*

     Don't touch bag 3PP Poss[3]

     Don't touch their bags!

Examples (i), (ii) and (iii) show that in Malay, the same pronoun *mereka* is used for the nominative, accusative and possessive case. This is also true for the third person singular pronouns *dia, ia* and *–nya*. Thus, the case feature is not manifested in the Malay language, including the personal pronouns, while the same is overtly manifested in the English personal pronouns.

Thus, there seems to be some morphological, semantic and syntactic differences and similarities in both the English and Malay languages with regard to this property. Firstly, both the English language and the Malay language differentiate the number feature in third person pronouns. Secondly, the gender feature is differentiated in the English singular third person pronouns (i.e. masculine, feminine) but it is not differentiated in the Malay third person singular pronouns. This means that in Malay, if the singular third person pronoun is used in a sentence without the presence of the proper noun as co-reference, it would be difficult to determine the gender feature. Thirdly, Malay third person pronouns do not overtly show the case feature compared to the English third person pronouns. While English differentiates the third person pronouns for subject (nominative) case, object (accusative) case and possessive case, Malay does not. Thus, the case feature for the Malay third person pronouns may be difficult to determine when the pronouns are used in isolated forms.

The differences in the third person pronouns in the English language and Malay language are important. Hawkins and Chan (1997) stated that when differences occur in the parameter setting of L1 and L2, there would be a considerable restrain to the extent to which an L2 learner can build a mental grammar like that of a native speaker. L2 learners would therefore not be able to reach a level at par with native speakers. It would be interesting to investigate the validity of such a claim in the present study.

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[1] 3PP Nom – Third Person Plural Pronoun Nominative Case

[2] 3PP Acc – Third Person Plural Pronoun Accusative Case

[3] 3PP Poss – Third Person Plural Possessive Case

THE STUDY

The objective of this study is to find out to what extent the L1 Malay learners of L2 English at different levels of proficiency are able to acquire the English third person pronouns. The participants for this study comprised L1 Malay learners who were grouped according to different age groups and matched levels of proficiency (elementary, intermediate, and advanced), based on a standardized general proficiency test, the *Oxford Placement Test* (OPT) (Allan, 1992). This method of selection was done following Hawkins and Chan (1997). Out of one hundred and fourteen (114) students in Form One who sat for the OPT, fifty (50) students who scored below 50 marks were randomly selected for the elementary level. Out of one hundred and thirty (130) students in Form Four who sat for the OPT, fifty (50) students who scored between 50 and 69 marks were randomly selected for the intermediate level. Out of two hundred (200) adult undergraduates and graduate lecturers who sat for the OPT, fifty (50) who scored above 70 marks were randomly selected for the advanced level. The age range for the Form One students was between 12 and 13 years. The age range for the Form Four students was between 16 and 17 years. The advanced comprised adults and their ages ranged from 19 to 40 years. This adult group represents learners who have reached ultimate attainment. In total, the number of the respondents selected for the research was 150.

Following other studies in SLA (e.g. Hawkins & Chan, 1997; Wong, 1999, 2002), a Grammatical Judgement Task (GJT) was used to collect data for the study. The GJT, which comprised 72 items (both grammatical and ungrammatical) on English third person pronouns, was administered to tap the learners' linguistic competence on their knowledge of gender, case and number (*see* Appendix 1 for the breakdown of items and Appendix 2 for examples of items). The items were formulated based on a cross linguistic analysis of third person pronouns of the two languages, English and Malay. The GJT was piloted with a small sample of L1 Malay students to ensure that the items were appropriately phrased. Based on the feedback of these students, the test was honed.

In the GJT, the learners were required to make judgments on the grammaticality and ungrammaticality of the third person personal pronoun items based on their intuition. Each correct judgment was scored with a mark and the respondents' scores were converted to percentages.

One-way ANOVAs and post-hoc tests were run to see if there were significant differences in the sets of data collected for the elementary, intermediate and advanced groups. Further, paired-sample T-Tests were run on the advanced group results to see if there were significant differences between the grammatical and ungrammatical items tested for this group that represents the ultimate attainment of the grammatical property being tested for the study.

RESULTS AND DISCUSSION

The overall results of the GJT testing English third person pronouns are summarized in Table 3.

The data in Table 3 indicate that the learners scored a mean of 61.73% for the items with the correct usage of English third person pronouns and 49.44% for the items with incorrect usage of English third person pronouns. The results showed that the learners were able to correctly judge the grammatical items (above chance level of 50%) better than the ungrammatical items (slightly below chance level).

The details of the data in Table 3 show that most of the items were problematic for the elementary group and most of their scores did not reach the 50% mark, except for the grammatical item 'he' (55.75%), 'she' (57.50%) and 'her' (50.25%). Even these

scores were only slightly above 50%. Taken together, the results suggest that at the initial stages, the learners found acquisition of English third person pronouns problematic. White (1996) explained that learners would initially have strong influence from UG and their L1 and therefore, the acquisition of their L2 would be problematic. This is true in the case of our study on English third person pronoun items among learners at the elementary level.

Comparatively, the intermediate and advanced groups performed better for both the grammatical and ungrammatical items on English third person pronouns. At the intermediate group level, however, it was found that the results of some ungrammatical items did not reach the 50% chance level. These include the items 'them' (29.75%), 'theirs' (46.50%) and 'their' (49.25%).

TABLE 3
Mean Percentages for Correct Judgements of Items on English Third person pronouns

Items	Elementary		Intermediate		Advanced	
	Gr* (%)	Ugr* (%)	Gr* (%)	Ugr* (%)	Gr* (%)	Ugr* (%)
He	55.75	35.00	70.00	62.50	73.50	64.08
She	57.50	38.30	72.25	69.30	73.25	69.50
They	40.25	35.12	70.75	55.37	73.00	59.25
Him	40.50	32.75	68.50	54.50	71.50	62.75
Her	50.25	34.25	70.50	55.33	71.75	65.91
Them	43.75	33.12	67.75	29.75	71.25	51.50
His	48.25	28.91	67.75	63.33	72.25	60.83
Hers	41.50	31.41	61.25	56.16	67.25	61.41
Theirs	41.50	33.50	62.25	46.50	67.25	55.12
Their	41.75	31.62	67.50	49.25	71.50	57.25
Mean	46.10	33.39	67.85	54.19	71.25	60.76

Overall grammatical: 61.73%	Overall ungrammatical: 49.44%
ANOVA: F=128.585; p<0.05	ANOVA: F=142.626; p<0.05
T-Test: p<0.05 (Advanced group)	

*Gr = Grammatical Items; Ugr = Ungrammatical Items

A comparison of the grammatical and ungrammatical items tested for English third person pronouns was made for the elementary, intermediate and advanced groups and the mean scores are summarised in a bar graph in Fig.2.

Gender

Table 4 shows the mean percentages of the elementary, intermediate and advanced groups for judgements of grammatical and ungrammatical items testing the property of gender in English third person pronouns.

The data in Table 4 show that the elementary group had difficulty with the items. Only the grammatical items 'he' (55.75%), 'she' (57.50%) and 'her' (50.25%) were scored above 50%. One reason for this could be due to input frequency where learners may have encountered more examples of the items mentioned compared to other items, resulting in them being more

familiar with and able to use these items correctly more often (Towell & Hawkins, 1994).

The data also show that there was not much difference in the acquisition of the masculine (grammatical=63.10%; ungrammatical=51.52%) and feminine (grammatical=62.83%; ungrammatical=56.27%) features tested. Both the grammatical and ungrammatical results for these features were not native-like. The reason for this could be because the Malay language, the learners' L1, does not overtly manifest the gender feature. Thus, no differentiation is made for the English feminine and masculine items as the same form is used for both genders in Malay. For example, the Malay third person personal pronoun *dia* may represent both the English masculine pronoun 'he' and the feminine pronoun 'she'. This being the case, the learners may not have fully acquired the property in the English setting.
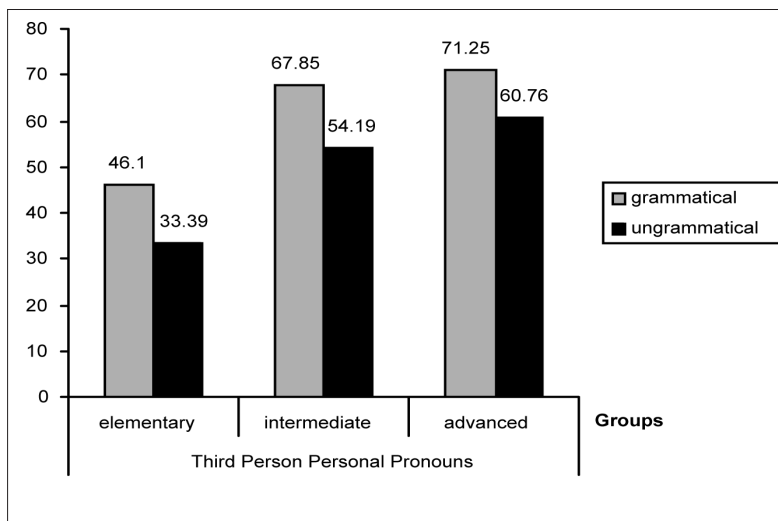
Fig.2: Judgements in percentages of the grammatical and ungrammatical items testing for English third person pronouns for the 3 groups.

TABLE 4
Judgements of Items with Gender Feature in Third person pronouns

Gender	Items	Elementary		Intermediate		Advanced	
		Gr* (%)	Ugr* (%)	Gr* (%)	Ugr* (%)	Gr* (%)	Ugr* (%)
Masculine	He	55.75	38.25	70.00	55.25	73.50	56.75
	Him	40.50	36.50	68.50	65.25	71.50	71.00
	His	48.25	25.00	67.75	58.25	72.25	57.50
Mean		48.16	33.25	68.75	59.58	72.41	61.75
Overall Masculine						63.10	51.52
ANOVA (Masculine)						F=88.366 p<0.05	F=56.362 p<0.05
T-Test (Masculine-advanced group)						p<0.05	
Feminine	She	57.50	34.00	72.25	73.50	73.25	70.50
	Her	50.25	35.75	70.50	63.50	71.75	69.75
	Hers	41.50	32.50	61.25	60.25	67.25	66.75
Mean		49.75	34.08	68.00	65.75	70.75	69.00
Overall Feminine						62.83	56.27
ANOVA (Feminine)						F=68.031 p<0.05	F=125.792 p<0.05
T-Test (Feminine-advanced group)						p>0.05	
Overall Mean		48.95	33.66	68.37	62.66	71.58	65.37

* Gr = Grammatical Items; Ugr = Ungrammatical Items

A one-way ANOVA showed that there was an overall significant difference in the performance of the 3 groups (elementary, intermediate and advanced) for the grammatical (F=88.366; p<0.05) and ungrammatical (F=56.362; p<0.05) items with masculine gender feature in third person pronouns. A one-way ANOVA was also run for feminine gender feature items in third person pronouns to see if there was a significant difference in the performance of the 3 groups. The result also indicated that there was an overall significant difference in the performance of the elementary, intermediate and advanced groups for the grammatical (F=68.031; p<0.05) and ungrammatical (F=125.792; p<0.05) items.

Follow-up Post hoc Scheffé tests showed that for performance on items with the masculine gender feature, there were significant differences between the elementary and intermediate groups (p<0.05) and between the elementary and advanced groups (p<0.05). However, there was no significant difference in the performance between the advanced and the intermediate groups (p>0.05). For the ungrammatical items, the tests also showed that there was a significant difference in the performances of the elementary and intermediate (p<0.05), as well as the elementary and advanced (p<0.05) groups. No significant differences were registered between the intermediate group and the advanced group (p>0.05).

This means that for the masculine gender feature, the results for the intermediate and advanced groups were significantly different from the elementary group. For the feminine gender feature, the results showed that there were significant differences in the performance between the elementary and intermediate groups (p<0.05) and between the elementary and advanced groups (p<0.05) for the grammatical items. Nonetheless, no significant difference was registered between the level of performance of the intermediate and advanced groups (p>0.05). For the ungrammatical items, there were significant differences in the performance between the elementary and intermediate groups (p<0.05) and between the elementary and advanced groups (p<0.05). Once again, there was no significant difference between the intermediate and advanced groups (p>0.05). This shows that there were significant differences in the results of the elementary group compared to the intermediate and advanced groups. The results for the intermediate and advanced groups, however, did not show any significant difference.

Taken together, the results for both the grammatical and ungrammatical items testing masculine and feminine gender in third person pronouns indicate that learners go through developmental stages from the elementary level to the advanced level. Thus, the details of the data indicate that the learners' performance was not native-like and even at the ultimate attainment level, the results suggest that although the learners seemed to have acquired L2 surface forms to about 70% level, their underlying representations of these items are not native-like. To confirm this, a paired-sample T-Test was also run to see if there was a significant difference between the grammatical and ungrammatical items testing both the masculine and feminine gender features in English third person pronouns for the advanced group. The data indicate a significant difference between the grammatical and ungrammatical items testing masculine gender feature (p<0.05). However, the difference between the scores for the grammatical and ungrammatical items testing feminine gender feature is not significant (p>0.05). The differences found in the T-Test for masculine gender feature suggests that the advanced learners may have restructured the L2 to acceptable forms to the level of about 72% for masculine gender items but these have been mapped on to their L1 underlying features and therefore, they were not at par with native speaker competence level. On the other hand, the T-Test result for feminine gender feature suggests that the advanced learners have been able to acquire the feminine gender feature items to a level of around 70% (70.75% grammatical; 69% ungrammatical). However, the ultimate attainment score is far from native speakers' competence level (which is assumed to be 80% and above, see e.g. Wong, 1999, 2002), and the underlying representations of these items may be more L1-like.

Case

Table 5 shows the mean percentages for the correct judgements of the grammatical and ungrammatical items for the case feature by the elementary, intermediate and advanced groups.

The data in Table 5 show that the learners in the elementary group found the acquisition of most of the items problematic. Only the grammatical nominative case items 'he' (55.75%) and 'she' (57.50%) and the grammatical accusative case item

'her' (50.25%) were scored above chance level, albeit only slightly. This suggests that at the initial stages of acquisition, the learners found acquisition problematic for most of the items. As mentioned earlier, the learners, at the initial stages of learning have strong influence from both their L1 and UG (White, 1996, 2003). As we can see in the data, this seems to be born out.

At the intermediate level, the learners seemed to have more difficulty with the acquisition of the accusative and possessive case items compared to the nominative

TABLE 5
Judgements of Items with Case Feature in Third person pronouns

Case	Items	Elementary		Intermediate		Advanced	
		Gr* (%)	Ugr* (%)	Gr* (%)	Ugr* (%)	Gr* (%)	Ugr* (%)
Nominative	He	55.75	25.50	70.00	60.00	73.50	62.25
	She	57.50	40.50	72.25	64.50	73.25	66.75
	They	40.25	37.25	70.75	61.00	73.00	65.00
Mean		51.16	34.41	71.00	61.83	73.25	64.66
Overall nominative case						65.13	53.63
ANOVA (nominative)						F=117.928; p<0.05	F=84.478; p<0.05
T-Test (nominative-advanced group)						p<0.05	
Accusative	Him	40.50	30.50	68.50	46.25	71.50	56.25
	Her	50.25	41.75	70.50	31.75	71.75	56.75
	Them	43.75	32.50	67.75	31.75	71.25	58.50
Mean		44.83	34.91	68.91	36.58	71.50	57.16
Overall accusative case						61.74	42.88
ANOVA (accusative)						F=78.924; p<0.05	F=25.296; p<0.05
T-Test (accusative-advanced group)						p<0.05	
Possessive	His	48.25	31.25	67.75	62.50	72.25	63.25
	Hers	41.50	28.50	61.25	48.75	67.25	58.50
	Theirs	41.50	30.50	62.25	38.75	67.25	57.00
Mean		43.75	30.08	63.75	50.00	68.91	59.58
Overall possessive case						58.80	46.55
ANOVA (possessive)						F=52.770; p<0.05	F=37.290; p<0.05
T-Test (possessive-advanced group)						p<0.05	
Overall mean		46.58	33.13	67.88	49.47	71.22	60.47

*Gr = Grammatical Items; Ugr = Ungrammatical Items

case items. In particular, they seemed to have problems with the ungrammatical accusative case items 'him' (46.25%), 'her' (31.75%) and 'them' (31.75%). They also had problems with the ungrammatical possessive case items 'hers' (38.75%) and 'theirs' (48.75%). The reason for this could be because the learners' L1 does not specify for case. In English, the items 'he', 'she' and 'they' are specified for nominative case. Meanwhile, the pronouns 'him', her' and 'them' are specified for accusative case and the pronouns 'his', 'hers' and 'theirs' are specified for absolute possessive case. In Malay, the third person personal pronoun *dia* is used as the subject, object and even to refer to possession while the pronoun *mereka* is the plural counterpart. These Malay pronouns are unspecified for case in a way similar to the English language. As a result, it can be seen that the learners have difficulty in acquiring the case feature in their L2 setting.

The advanced group seemed to have acquired the case feature to above chance level for all the items tested. However, the results were still far from native speakers' competence level. Hawkins and Chan (1997), in the FFFH, explained that L2 learners would have to deal with reanalyzing their input to other acceptable forms other than that of the native speaker representations. In other words, their IL grammar state at ultimate attainment is a state where they behave as if their L2 were their L1 or they find solutions different from their L1 and the L2 (see for example, Bley-Vroman *et al.*, 1988).

Overall, the learners performed better in the nominative case items (grammatical = 65.13%; ungrammatical = 53.63%) compared to the possessive case (grammatical = 58.80%; ungrammatical = 46.55%) and accusative case (grammatical = 61.74%; ungrammatical = 42.88%) case items. In order to find out if the results were significantly different for the 3 groups (elementary, intermediate and advanced) in the nominative, accusative and possessive case items tested for grammaticality in English third person pronouns, a one-way ANOVA was run. For the items with the nominative case, the difference was significant at a level of $F=117.928$ and $p<0.05$ for grammatical items and at a level of $F=84.479$ and $p<0.05$ for the ungrammatical items. With regard to the items with the accusative case, the difference was significant at a level of $F=78.924$ and $p<0.05$ for the grammatical items and at a level of $F=25.296$ and $p<0.05$ for the ungrammatical items. In the case of items with possessive case, the difference was significant at a level of $F=52.770$ and $p<0.05$ for the grammatical items and at a level of $F=37.290$ and $p<0.05$ for the ungrammatical items.

Post hoc Scheffé tests on the nominative case items, showed significant difference in the performance of the elementary and intermediate groups for the grammatical ($p<0.05$) and ungrammatical ($p<0.05$) items. A significant difference was also registered in the performance of the elementary and advanced groups for the grammatical ($p<0.05$) and ungrammatical ($p<0.05$) items.

However, there was no significant difference in the performance of the intermediate and advanced groups (p>0.05) for both sets of items.

For the test of accusative case, there was a significant difference in the performance of the elementary and intermediate groups for grammatical items (p<0.05) but no significant difference for ungrammatical items (p>0.05). This suggests that the elementary and intermediate groups were not different in terms of their interlanguage competence and their underlying representation was not that of the native speakers' competence. There was a significant difference in the performance of the elementary and advanced groups for the grammatical (p<0.05) and ungrammatical (p<0.05) items. However, there was no significant difference in the performance of the intermediate and advanced groups for the grammatical items (p>0.05) but there was a significant difference between the groups for the ungrammatical items (p<0.05). This indicates that the intermediate and advanced groups were different in terms of their competence for these items.

With regard to the test on possessive case, there was a significant difference in the performance of the elementary and intermediate groups for both the grammatical (p<0.05) and ungrammatical (p<0.05) items. There was also a significant difference in the performance of the elementary and advanced groups for both the grammatical (p<0.05) and ungrammatical (p<0.05) items. However, no significant difference was registered between the intermediate and advanced groups (p>0.05) for both sets of items.

A paired-sample T-Test was run to see if there was a significant difference between the grammatical and ungrammatical items testing case feature in English third person pronouns for the advanced group. The result indicate that there was a significant difference at p<0.05 between the grammatical and ungrammatical items for the nominative, accusative and possessive case. The learners seemed to have performed better for the grammatical items compared to the ungrammatical items. Again, the results suggest that learners, even at the advanced level, do not have native speakers' competence for the notion of case.

Taken together, the results for the items focussing on the case feature indicate that the L1 Malay speakers have not acquired case to native speakers' competence level. The reason put forth here is that the case feature is not specified in the Malay third person pronouns and therefore not overtly manifested as is the case for their English counterparts. This difference in the two languages seems to be the reason why learners have found the third person pronouns difficult to acquire as they are not able to reset their L1 parameter, in this case from a language with no overt case to one that manifests case in the pronouns, as propounded by the FFFH (Hawkins & Chan, 1997). White (1996, 2003) argues that learners eventually develop interlanguage (IL) grammars because of the L2 property interacting with their L1 and UG. Thus, we find that even though the three groups

are at different levels of IL grammars, what the advanced group had stabilised at is a level that is not native-like. Generally, the learners had more difficulty with the non-subjective (accusative and possessive) third person plural pronouns (e.g. 'them', 'theirs', 'their') than the subjective (nominative) third person plural pronoun (e.g. 'they'). From the acquisition point of view, it follows that learners generally encounter the subjective pronouns with the nominative case earlier and more frequently in their input. In fact, Towell and Hawkins (1994) claim that when learners encounter more examples of an item, they are better able to acquire them. Thus, input frequency could account for the learners being better able to acquire the subjective (nominative) pronouns, such as 'they', better than the accusative and possessive case pronouns in English. Another reason for this could also be that the nominative case is the default case in Malay. Thus, the L1 Malay learners have found the accusative case and possessive case items more difficult than the nominative case items.

TABLE 6
Judgements of Items with Number Feature in English Third person pronouns

Number	Items	Elementary		Intermediate		Advanced	
		Gr* (%)	Ugr* (%)	Gr* (%)	Ugr* (%)	Gr* (%)	Ugr* (%)
Singular	He	55.75	41.50	70.00	72.25	73.50	73.25
	She	57.50	40.50	72.25	70.00	73.25	71.25
	Him	40.50	31.25	68.50	52.00	71.50	60.50
	Her	50.25	25.25	70.50	70.75	71.75	71.75
	His	48.25	30.50	67.75	69.25	72.25	61.75
	Hers	41.50	33.25	61.25	59.50	67.25	59.00
Mean		48.95	33.70	68.37	65.62	71.58	66.25
Overall Singular						62.96	55.19
ANOVA (singular)						F=111.732 p<0.05	F=183.979 p<0.05
T-Test (singular – advanced group)						p<0.05	
Plural	They	40.25	33.00	70.75	49.75	73.00	53.50
	Them	43.75	33.75	67.75	27.75	71.25	44.50
	Theirs	41.50	36.50	62.25	54.25	67.25	53.25
Mean		41.83	34.41	66.91	43.91	70.50	50.41
Overall Plural						59.74	42.91
ANOVA (plural)						F=87.796 p<0.05	F=13.188 p<0.05
T-Test (plural – advanced group)						p<0.05	
Overall Mean		46.58	33.94	67.88	58.38	71.22	60.97

*Gr = Grammatical Items; Ugr = Ungrammatical Items

Number

Table 6 shows the mean percentages for the correct judgements of grammatical and ungrammatical number items scored by the elementary, intermediate and advanced groups.

The data presented in Table 6 indicate that the learners in the elementary group have also performed poorly on this set of items. Only the grammatical singular number items 'he' (55.75%), 'she' (57.50%) and 'her' (50.25%) were scored above chance level. In comparison, the learners in the intermediate group had performed better, scoring above chance level for most of the items, except for the ungrammatical plural number items 'they' (49.75%) and 'them' (27.75%). As for the ungrammatical plural number item 'them', the advanced group also scored it below chance level (44.50%). However, all the other items were scored above the chance level by the advanced group.

The analysis further shows that overall the learners seemed to have performed better for the singular number items (grammatical = 62.96%; ungrammatical = 55.19%) than the plural number items (grammatical = 59.74%; ungrammatical = 42.91%). A one-way ANOVA showed significant differences in the performance of the 3 groups (elementary, intermediate and advanced) for the grammatical and ungrammatical items tested for the singular and plural number feature. For the singular number feature, there were significant differences of $F=111.732$ and $p<0.05$ for grammatical items, and $F=183.979$ and $p<0.05$ for the ungrammatical items. For the plural number feature, there were significant differences of $F=87.796$ and $p<0.05$ for the grammatical items and $F=13.188$ and $p<0.05$ for the ungrammatical items. Post hoc Scheffé tests showed that for the items with the singular number feature, there were significant differences between the elementary and intermediate groups ($p<0.05$) and between the elementary and advanced groups ($p<0.05$) for the grammatical items. However, no significant difference was registered between the intermediate and advanced groups ($p>0.05$). For the ungrammatical items, there were also significant differences between the elementary and intermediate groups ($p<0.05$) and between the elementary and advanced groups ($p<0.05$). But, no significant difference was registered for the performance in the intermediate and advanced groups ($p>0.05$). This means that there was no difference in terms of acquisition between the results of the intermediate and advanced group for this particular set of items.

For the plural number feature, there were significant differences in the performance of the elementary and intermediate groups ($p<0.05$) and in the performance of the elementary and advanced groups ($p<0.05$) for the grammatical items. No significant difference was registered for the performance of the intermediate and advanced groups ($p>0.05$). For the ungrammatical items, significant differences were registered between the elementary and intermediate groups ($p<0.05$) and between the elementary

and advanced groups (p<0.05), although no significant difference was registered between the intermediate and advanced groups (p>0.05).

A paired-sample T-Test was further run to find out if there were significant differences between the advanced scores for the grammatical and ungrammatical items with the singular and plural number features. The results showed that both sets of items with singular and plural number features had a value of p<0.05 each. This means that there were significant differences between the scores of the singular and plural grammatical and ungrammatical items. The results indicate that the learners' underlying representation for the items testing number in third person pronouns is non-native like.

The results for the number items again indicate that the L1 Malay speakers have difficulty with the number feature in English third person pronouns. Although Malay does manifest overtly number in *dia* and *mereka*, they represent only 'third person singular' and 'third person plural' features, respectively. On the other hand, in the equivalent English pronouns, the other features of gender and case are present together and manifested as a single overt form, for example, 'she' has the feature 'third person singular feminine nominative' while 'them' is specified as 'third person plural accusative'. The fact that these bundles of features are represented as single overt forms respectively seemed to have spilled over to the items testing the feature number as well, up to the ultimate attainment level. In other words, the difference in the learners'

L1 and L2 settings has made it difficult for the L1 speakers to acquire the English third personal pronouns to a native-like level as they are unable to reset their L1 settings.

CONCLUSIONS AND IMPLICATIONS

From our discussion of the results thus far, we can conclude that the learners at different age groups and matched levels of proficiency performed differently. Overall, the learners in the advanced group (aged 19 to 40) performed better than the intermediate (aged 16 to 17) and elementary (aged 12 to 13) groups. The learners in the intermediate group performed better than the learners in the elementary group. In general, however, the statistical analyses showed that there was no significant difference between the results of the intermediate and advanced groups compared to the elementary group for most of the items tested. Thus, taken together, the results suggest that in the initial stages, the learners had difficulty due to the strong influence from their L1 and UG (White, 1996, 2003). At the later stages, however, they were able to acquire the items although not to the level of native speaker competence.

Further, the evidence showing the predictions of the FFFH (Hawkins & Chan, 1997) could be true. The FFFH predicts that parameters not instantiated in the learners' L1 are not available to them after the critical period, while principles which are universal remain operative even after this period. When there are parametric differences between the L1 and L2 settings, the acquisition of the L2 is predicted to be

problematic. The findings in our study showed that parametric differences in the L1 and L2 setting seemed to have influenced the results as the learners were unable reset their L1 settings, as proposed by Hawkins and Chan (1997). The differences in the features associated with the third person pronouns between the L1 and L2 seemed to have caused this difficulty in acquisition.

Some implications can be drawn from the findings of the current study. Firstly, the FFFH (Hawkins & Chan, 1997) predicts that when there are parametric variations between the learners' L1 and L2, parameter resetting is impossible. Within the critical period of learning, learners would still have principles and parameters available. Beyond that time frame, however, only principles are available for acquisition. In order to acquire the L2 items, learners would therefore have to reanalyse their input to fit their L1 settings. This means that they would have to resort to other mechanisms other than their L1 but within the constraints of UG in order for acquisition to occur. Even then, their acquisition would not be at par with that of the native speakers and as Bley-Vroman et al. (1988) explain, the learners' knowledge are their IL grammars. In our study, the learners at the elementary level found acquisition of English third person pronouns and their related features problematic and this is probably due to the lack of exposure to the L2. White (2003) explained that in the initial stages, learners would have strong influence from their L1 and UG. However, with longer exposure to the L2, the learners at the intermediate

and advanced levels were able to perform better. Their performances, nevertheless, were seen to be far from that of the native speakers' competence level. Thus, this implies that the learners have only partial access to UG for L2 acquisition. As the FFFH predicts, they would have used other mechanisms by reanalyzing their input to fit their L1 setting within the constraints of UG. Towell and Hawkins (1994) suggest that input frequency play a role here. They claim that exposure to more examples of an item would enable the L2 learners to better acquire the item compared to other items. Meanwhile, Ellis (1998) suggests that learners could resort to rote learning or memorizing in their L2 endeavour. These mechanisms build settings that are different from the learners' L1 and L2, resulting in IL grammars.

The findings also have implications for the classroom. The difference in the learners' L1 and L2 acquisition processes would imply that learning strategies applied to them should also be different. In first language acquisition, learners have full access to UG for acquisition. However, the findings of the current study show that L2 learners may only have partial access to it. Thus, L2 instructors would need to know and comprehend that learners may never fully be able to perform at par with native speakers. The overall results for the acquisition of the third person pronouns show in the initial stages, the learners found acquisition to be problematic but through progressive stages of development they were able to improve. However, their level of performance was

not at par with the native speakers. Hence, instructors and learners need to be able to cope with this in order to be comfortable and satisfied with their achievement of set objectives for their lessons.

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APPENDIX 1

Breakdown of the Items Tested in the GJT

TYPE	Grammatical items (Correct Usage)	Ungrammatical items			Total Number of Items
		Gender	Case	Number	
he	2	2	2	2	8
she	2	2	2	2	8
they	2	-	2	2	6
him	2	2	2	2	8
her	2	2	2	2	8
them	2	-	2	2	6
his	2	2	2	2	8
hers	2	2	2	2	8
theirs	2	-	2	2	6
their	2	-	2	2	6
Total Number of Items					72

Appendix 2

Examples of the grammatical and ungrammatical items tested in the GJT

1(a):	**Grammatically correct item (Gender)**
	Muthu says <u>he</u> loves to eat the tosai from Ramu's Restaurant.
1(b):	**Ungrammatical item (Gender)**
	Melissa confronted him because <u>she</u> had lied to her about the matter.
2(a):	**Grammatically correct item (Case)**
	Salmah is a good cook. <u>She</u> can cook many delicious dishes.
2(b):	**Ungrammatical item (Case)**
	<u>Her</u> was the person Badrul was speaking to on the phone.
3(a):	**Grammatically correct item (Number)**
	Anita and Aminah are twins but <u>they</u> do not look alike.
3(b):	**Ungrammatical item (Number)**
	The boys are having an examination tomorrow so <u>he</u> stayed up late.

SOCIAL SCIENCES & HUMANITIES

Entrepreneurial Leadership Competencies Development among Malaysian University Students: The Pervasive Role of Experience and Social Interaction

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ABSTRACT

Recent developments in entrepreneurial leadership have raised many questions about how to develop entrepreneurial leadership competencies, particularly among university students. This qualitative research attempts to answer some questions on entrepreneurial leadership competencies development among university students. In more specific, this paper provides deeper insights into the mechanisms through which students learn and develop their entrepreneurial leadership competencies. Fourteen undergraduate students who successfully involved in leading entrepreneurial clubs and projects in university entrepreneurship programmes were purposefully selected as the participants. Semi-structured interviews were then conducted to determine how the participants had developed their entrepreneurial leadership. Our findings revealed that students' entrepreneurial leadership was developed through a dynamic and continuous process of experiential and social interactive learning. In addition to availability, a variety of leadership experiences and social interactions influence students' entrepreneurial leadership learning and development. Meanwhile, implications of the findings to entrepreneurial leadership education and practice, as well as areas for future research are also discussed.

Keywords: Entrepreneurial leadership development, entrepreneurial learning, experiential learning, social interactive learning, university students

INTRODUCTION

In accordance with the increasing growth of interest in entrepreneurial leadership, as a distinctive paradigm of both research and practice, many questions have raised questions about how entrepreneurial leadership competencies develop. Many scholars from the disciplines of both entrepreneurship and leadership attempted to illuminate some answers to these questions through focusing on the common linkages between the two schools

of thought (Kempster & Cope, 2010; Cogliser & Brigham, 2004; Vecchio, 2003). Accordingly, a robust body of literature has been devoted to identifying and developing entrepreneurial leadership competencies and studying how these competencies affect new venture creation, growth, and success. In turn, several studies have examined the entrepreneurial capabilities of organisational leaders and their influences on leaders' ability to deal with the highly turbulent and competitive environments of current organisations (Yang, 2008; Fernald *et al*., 2005; Cogliser & Brigham, 2004; Gupta *et al*., 2004; Swiercz & Lydon, 2002). However, there still exists a wide gap in our knowledge on mechanisms through which entrepreneurial leadership develops (Kempster & Cope, 2010). Furthermore, much of our knowledge about entrepreneurial leadership development is based on learning, which occurs through the processes of new venture creation that may not be completely applicable in educational and training contexts (Rae, 2000; Cope, 2005, 2003; Young & Sexton, 2003; Cope & Watts, 2000; Rae & Carswell, 2000). Leadership learning in an entrepreneurial context differs from other forms of leadership learning because of the inherited uncertainties and complexities of the roles and tasks of an entrepreneur and there is an urgent need for a deeper understanding of "leadership preparedness" that nascent entrepreneurs bring to new venture creation (Kempster & Cope, 2010, p. 5).

As a developing country focusing on knowledge-based and innovative economy, Malaysia urgently requires entrepreneurial leaders who have the motivation and competency to successfully lead entrepreneurial activities (Mastura Jaafar & Abdul Rashid Abdul Aziz, 2008). Accordingly, tremendous amount of money has been allocated to entrepreneurship development in Malaysia and one of the main focuses of the Malaysian government has been providing entrepreneurship education and training programmes through different youth development organizations and educational and training systems (Cheng *et al*., 2009). However, there is not enough information on how these programmes develop students' entrepreneurial capabilities, specifically their ability to lead entrepreneurial venturing (Mohd Noor & Mohammad Basir, 2009; Firdaus Abdullah *et al*., 2009).

Thus, this qualitative study aimed to gain a deeper understanding of university students' entrepreneurial leadership learning and development. The first section of this paper discusses the theoretical foundations and importance of entrepreneurial leadership. The next section presents different mechanisms of entrepreneurial leadership learning. Then, the research methodology is reported. Finally, the implications of the findings are discussed in the conclusion section.

What is Entrepreneurial Leadership and How Important is It?

Entrepreneurial leadership has been considered as a form of leadership that is distinct from other types of leadership

behaviour (Gupta *et al*., 2004), and many studies have emphasized on the importance and necessity of entrepreneurs' leadership skills in new venture creation, performance and success (Fery, 2010; Murali Sambasivan *et al*., 2009; Baron, 2007). However, there is no commonly accepted definition and theory for this particular notion of leadership in entrepreneurial contexts. A review of the few definitions proposed for the concept indicates that the early definitions focused on the personal characteristics and functional competencies of entrepreneurial leaders (Surie & Ashely, 2008; Chen, 2007; Kuratko, 2007; Gupta *et al*., 2004; Swiercz & Lydon, 2002), whereas more recently, the stress has been placed on the process through which entrepreneurial leadership develops (Kempster & Cope, 2010). Despite the debates, there has been a relative consensus among researchers on the distinctive characteristics of entrepreneurial leaders that motivate and enable them to lead a new business successfully (Nicholson, 1998). These include proactiveness, innovativeness, and risk taking (Surie & Ashely, 2008; Chen, 2007; Kuratko, 2007; Gupta *et al*., 2004).

"Proactiveness", a personality characteristic typical of entrepreneurial leaders, means being active in creating and leading toward the future. It affects entrepreneurs' creativity, perseverance in achieving their vision, as well as their desire and intention to initiate entrepreneurial activities (Zampetakis, 2008). This trait also enables entrepreneurs to manage their business successfully (Fuller & Marler,

2009). The second characteristic of entrepreneurial leaders is "innovativeness". Innovativeness has been defined as the ability and tendency of entrepreneurial leaders to think creatively and develop novel and useful ideas relating to entrepreneurial opportunity recognition, resource utilisation, and problem solving (Mattare, 2008; Chen, 2007; Okudan & Rzasa, 2006; Gupta *et al*., 2004). It is this attribute that differentiates entrepreneurs from those who just want to be self-employed (Okudan & Rzasa, 2006; Kuratko, 2005; Mueller & Thomas, 2000). Finally, entrepreneurial leaders have been mostly characterised as possessing the propensity for calculated and prudential "risk taking"; the willingness to absorb uncertainty and take the burden of responsibility for the future (Chen, 2007; Zhao *et al*., 2005; Mueller & Thomas, 2000).

In addition to personality traits, entrepreneurial leadership encompasses some functional competencies which differentiate it from any other types of leadership (Gupta *et al*., 2004). Swiercz and Lydon (2002) define functional competencies as the competencies relating to the entrepreneurial leader's performance, such as operations, finance, marketing, and human resources. Gupta *et al*. (2004) developed a theoretical foundation for entrepreneurial leadership based on both personal and functional challenges that entrepreneurial leaders face in organisational settings. According to the theory, entrepreneurial leaders face two interconnected challenges in the process

of organisational development. "Scenario enactment", as the first challenge, is about envisioning the future and creating a scenario of innovative possibilities. The second challenge, known as "Cast enactment", is defined as influencing and inspiring a group of competent and committed supporters to create an envisioned future. In order to face functional challenges, entrepreneurial leaders need to play two important roles, namely, building commitment among followers and specifying limitations. Fundamentally, scenario and cast enactment are interdependent since one cannot be conceived without the other. It is argued that entrepreneurial leadership competencies are developed by being involved in entrepreneurial activities and facing the challenges and crises of task performances (Kempster & Cope, 2010; Gupta *et al*., 2004).

There is a strong consensus among entrepreneurship scholars in that entrepreneurial action and behaviour are not attributes that occur overnight (Kuratko, 2009). Therefore, individuals need to develop many personal and functional competencies to be able to successfully perform the challenging tasks and roles of an entrepreneurial leader (Kuratko, 2007; Okudan & Rzasa, 2006; Vecchio, 2003). In doing so, entrepreneurial leaders should be engaged in a dynamic process of learning, becoming, and development (Kempster & Cope, 2010). Although there has been a tradition of looking at entrepreneurship as a learning process (*see* Rae, 2006, 2000; Cope, 2005, 2003; Young & Sexton, 2003;

Cope & Watts, 2000; Rae & Carswell, 2000), research on the learning perspective in entrepreneurial leadership development and different processes of entrepreneurial leadership learning has been conducted only recently (Kempster & Cope, 2010).

Entrepreneurial Leadership Learning and Experience

Entrepreneurship scholars argue that entrepreneurial leadership learning is a sort of naturalistic learning that occurs through real contextual experience in which entrepreneurs gradually develop their understanding and practice of leadership (Kempster & Cope, 2010; Kempster, 2006). In general, entrepreneurial learning is an action-oriented process through which entrepreneurs experience various phases of business creation and management. Each and every experience changes entrepreneurs' knowledge in some area and enhances their confidence in that particular area (Minniti & Bygrave, 2001). In addition, experience also improves entrepreneurs' creativity, business skills, networks, and more importantly positive attitude toward failures that are associated with entrepreneurial activities (Politis & Gabrielsson, 2009; Politis, 2005). Emphasizing that entrepreneurial learning is experiential in nature, Anderson and Jack (2008) highlighted that most entrepreneurs' roles and tasks could be learned only through experience.

Holcomb *et al*. (2009) developed a model of entrepreneurial learning that categorizes experiential learning processes into two types; "direct experiential learning"

and "vicarious learning". While "direct experiential learning" refers to leaders' process of knowledge accumulation resulting from their direct experiences of the various aspects of business management, "vicarious learning" is the process through which entrepreneurs accumulate knowledge by observing the behaviours and actions of others and the related outcomes. The authors further argued that both of these processes affect knowledge acquisition and entrepreneurial action; however, entrepreneurs tend to rely more on their own prior experiences of failure than on the failures of others. This vicarious learning, which occurs through interaction with others, not only shapes entrepreneurs' understandings of leadership but also changes their leadership practices. Kempster (2009) also suggested that entrepreneurs' leadership learning could occur through the experiences of their own actions and through observing others.

The experiences gained by overcoming novel problems and critical events in the process of business management profoundly influence entrepreneurs to become intensively engaged in learning activities, think in radically different ways, and drastically change their behaviours (Pittaway & Cope, 2007; Cope, 2005; Politis, 2005; Cope & Watts, 2003; Young & Sexton, 2003; Rae & Carswell, 2000). Failure experiences can also develop a positive attitude towards problems associated with venture creation on entrepreneurs and enhance their self-awareness (Politis & Gabrielsson, 2009). The greater impact of

these experiences of failures and problems is due to the diversity of the knowledge accumulated from novel events as compared to familiar domains (Holcomb *et al.*, 2009).

Accordingly, many educators strongly believe that acquiring theoretical knowledge of entrepreneurship is insufficient for mastering the complex task of new business management, unless it is complemented with experience (Henry *et al.*, 2005; Politis, 2005). Harris and Gibson (2008) argue that high involvement in experiential activities "can better enable students to reach their entrepreneurial potential via skill attainment and increased expectations for success" (p. 577). Furthermore, experiential learning enhances students' self-awareness (i.e. their consciousness of their strengths and weaknesses) as well as their awareness of the challenges associated with new venture creation and management (Dhliwayo, 2008; Pittaway & Cope, 2007). Moreover, through experience, students "can generate new meaning which consequently leads to change in thinking and behaviour" (Fayolle & Gailly, 2008, p. 580). It is through experience that students acquire such requisite entrepreneurial skills and competencies as communication, creative thinking, leadership, analytical abilities, teamwork, and many others (Plumly *et al.*, 2008). Entrepreneurship experience also helps students recognise their need to learn and develop skills for dealing with the crises facing their business in its various stages of growth and development (Matlay, 2006, 2005; Smith *et al.*, 2006). On the other hand, experience enables students to

develop their social skills, "skills that are hard to acquire from a non-practitioner or a classroom situation" (Dhliwayo, 2008, p. 333). However, there is a wide gap in our specific knowledge about how such experiences help students to develop their entrepreneurial leadership qualities (Okudan & Rzasa, 2006).

Entrepreneurial Leadership Learning and Social Interaction

Although the importance and necessity of social interactions in the overall process of entrepreneurial learning have been proven through previous studies (Man & Yu, 2007; Pittaway & Cope, 2007; Cope, 2005), research on social aspects of entrepreneurial leadership learning, is surprisingly scarce. Entrepreneurial leadership can be defined as a social influence process that is intended to facilitate one to achieve an entrepreneurial vision. However, researchers have only recently shown an interest in the developmental role of social interactions in entrepreneurial leadership learning. Kempster and Cope (2010) define entrepreneurial leadership learning as a social process of "becoming" that is located in particular contexts and communities. From Surie and Ashley's (2008) point of view, entrepreneurs learn leadership through social interactions and a process of socialisation.

In a broader sense, entrepreneurial learning occurs in a complex and dynamic process of personal interaction with one's environment (Rae, 2007, 2000; Cope, 2005, 2003). These interactions shape

and develop entrepreneurial perceptions, attitude, and abilities (Rae & Carswell, 2000). Meanwhile, social interactive learning enables entrepreneurs to explore opportunities and cope with crises of new business management (Pittaway & Cope, 2007; Heinonen & Poikkijoki, 2006).

Concentrating on how social interactions develop students' entrepreneurial learning, Fuchs *et al*. (2008) emphasized that social interactions improve students' self-awareness of their weaknesses and strengths, as well as their maturity in communication skills and networking. In addition, knowledge resulting from social interactions between students who have different experiences and perspectives is of a higher level than the learning acquired by individuals (Pittaway & Cope, 2007). Furthermore, the synergy between individual and collective learning makes entrepreneurial learning more in-depth and last longer (Man & Yu, 2007; Smith *et al*., 2006). Social interactive learning also enhances creativity and innovativeness, which are the core components of the whole entrepreneurship process (Ko & Butler, 2007; Rae, 2006).

Entrepreneurship education programmes provide various opportunities for students' social interactions which develop their entrepreneurial learning in general and entrepreneurial leadership in particular (Peterman & Kennedy, 2003; Vecchio, 2003). These programmes provide opportunities for social interaction with teachers and peers in groups, which will improve students' affection for

entrepreneurial activities and strengthen their perceptions of their entrepreneurial competencies (Man & Yu, 2007; Pittaway & Cope, 2007). Furthermore, the social conflicts and challenges that students experience through developing a new business idea and reaching consensus within a group play a major role in enabling them to reassess their actions and radically change their mindset and behaviour (Pittaway & Cope, 2007). Therefore, "it seems extremely useful to have students from different backgrounds in order to enhance social learning" (Heinonen, 2007, p. 319).

In addition, entrepreneurship education programmes facilitate students' access to groups of entrepreneurial-minded people. Such programmes will provide students with opportunities to interact with other entrepreneurs, investors, and lecturers in various settings, such as trainings, club meetings, and business dealings, where they may observe and learn from successful models (Souitaris *et al*., 2007; Zhao *et al*., 2005). Although the lack of social interaction is identified as one of the critical barriers of entrepreneurs' leadership learning (Kempster & Cope, 2010), little is known about how social interactions develop entrepreneurial leadership competencies.

METHODOLOGY

There exists an urgent need for qualitative research in entrepreneurship studies in order to gain rich and in-depth insights into entrepreneurship phenomena (Hindle, 2004). At present, both entrepreneurship and leadership research has been dominated by quantitative techniques (Kempster & Cope, 2010). Furthermore, many aspects of entrepreneurial leadership, particularly entrepreneurial leadership learning, are qualitative in nature (Kempster & Cope, 2010; Swiercz & Lydon, 2002); this a fact that should compel scholars to look beyond quantitative research design for research methods better suited to obtaining knowledge about entrepreneurial competencies development. As a matter of fact, many of the critical, unanswered questions in entrepreneurship can only be addressed through qualitative research methods (Gartner & Birley, 2002). Bouckenooghe *et al*. (2007) assert that "at the heart of entrepreneurship lie disjointed, discontinuous and non-linear events that cannot be studied with methods designed for continuous and linear processes" (p. 168). Accordingly, the qualitative research method has gained momentum as a mode of inquiry in entrepreneurship studies (Ireland *et al*., 2005).

Through its employment of a phenomenological qualitative approach (Merriam, 1998), this study joined numerous research that had applied qualitative methods to gain a deeper understanding of entrepreneurial learning (Pittaway & Cope, 2007; Cope, 2003; Cope & Watts, 2000; Rae & Carswell, 2000), and a few other studies that are confident about the effectiveness of qualitative techniques for examining entrepreneurial leadership (Kempster & Cope, 2010; Swiercz & Lydon, 2002). By adopting a qualitative approach, it is hoped that this study will provide a

better understanding of how university students develop their entrepreneurial leadership capabilities through involvement in leadership positions in university entrepreneurship clubs, activities, and programmes. Investigating students' perceptions of their leadership development and towards the university entrepreneurship programmes was based on the rational that students' perceptions are a powerful predictor of their behaviour (Souitaris *et al.*, 2007). As far as we know, this is the first research that examines entrepreneurial leadership learning in an educational context.

Participants

A sample of fourteen university undergraduate students was selected to participate in this study based on convenient-purposive sampling strategy (Patton, 1990). The sample size of fourteen students leading university entrepreneurial activities is a reflection of the understanding and repetition of the mechanism, through which the students learned and developed their leadership (Mason, 2002). The decision to utilise undergraduates as the participants of this research was based on several reasons. First, they are involved in the process of leadership learning in an entrepreneurial context provided by university entrepreneurship programmes. Second, compared to other university students, undergraduates are most interested in entrepreneurship and starting their own businesses in the future (Gupta *et al.*, 2009; Harris & Gibson, 2008; Wu & Wu, 2008;

Mueller & Thomas, 2000). Moreover, adult students are more concerned about developing their entrepreneurial capabilities than other students since they need to apply those skills in their near future careers (Peterman & Kennedy, 2003).

The criterion for selecting students as a participant of the study was based on their active and successful involvement in leadership positions within the university entrepreneurship clubs and activities for the last two semesters. This selection criterion was based on the rational that students demonstrate their interest in creating their own ventures and developing their entrepreneurial competencies through active and voluntary involvement as leaders in university entrepreneurship clubs and activities, where entrepreneurial competencies are likely being developed (Pittaway *et al.*, 2009; Plumly *et al.*, 2008). This criterion also ensured that students would have considerable experiences in leadership learning and development and provides a significant opportunity for the researcher to study the "mechanisms" through which entrepreneurial leadership learning occurs among the students (Kempster & Cope, 2010).

Some of the participants were also selected through their friends who had introduced them as successful leaders of entrepreneurial activities. The participants were taken from both public and private universities (two public and two private universities) in order to provide a variety among students, and according to university entrepreneurship programme design,

content, delivery methods, and activities which affect students' entrepreneurial competencies development (Matlay, 2006). All the universities provided entrepreneurship courses and programmes, both in their curriculum and co-curriculum activities. Through entrepreneurship curriculum, the students learned about the theoretical foundations of entrepreneurship and practiced leadership skills by leading small groups in developing business plans and/or running a small simulated business as one of their assignments in the entrepreneurship courses. Meanwhile, entrepreneurship co-curriculum activities focus more on practical aspects of learning leadership through involving students in leading social entrepreneurship projects and running a small company, with the help and support of the university. By

leading these projects, the students were given the opportunities to meet various entrepreneurial-minded people including company managers, entrepreneurs, and investors. The universities have been involved in entrepreneurship education for more than five years. Moreover, all the universities established a specific centre to organize entrepreneurial programmes and activities.

The students were invited to participate in this study by the university entrepreneurship programme coordinators. Background information for the participants is provided in Table 1. None of the students had a background of employment and involvement in other entrepreneurship training courses out of the campus. Each of them is at least the leader of one project in their entrepreneurship courses. Nine

TABLE 1
Background Information of the Participants

Participants	Age	Gender	Field of study	University	Having parents who are entrepreneurs
Zakaria	23	Male	Computer Science	Public	No
Eza	21	Female	Accounting	Public	No
Muaz	22	Male	Business Administration	Public	Mother
Nadiah	22	Female	Landscape Architecture	Public	Father
Farhad	23	Male	Business Management	Public	No
Hakim	21	Male	Accounting	Public	No
Firdaus	22	Male	Business Administration	Public	Mother
Redwan	21	Male	Computer Science	Public	No
Akhyar	22	Male	IT Business	Private	Father
Ariz	25	Male	Networking System	Private	No
Hisyam	23	Male	Software engineering	Private	Mother
Saif	22	Male	Creative Multimedia	Private	Mother
Zahid	22	Male	Accounting	Private	No
Ariif	24	Male	Telecommunication Engineering	Private	Father

of the students were holding university entrepreneurship clubs and activities leadership positions for more than three semesters and the other five students were holding the position for two semesters. Eight of the students were from public universities and six others were from private universities. The majority of the participants had different education backgrounds, including Computer Science, IT Business, Business Administration, Creative Multimedia, Landscape Architecture, and Telecommunication Engineering. The average age of the students was 22 years. Of the fourteen students, two are female and the rest are male.

Data Collection and Data Analysis

Individual semi-structured interviews were conducted at the participants' universities and focused on how students learned their entrepreneurial leadership competencies. A list of the questions on entrepreneurial leadership learning was developed based on the literature review, and these included, "How have you improved the skills to lead university entrepreneurial projects?" "How did leading the university entrepreneurship clubs and activities develop your skills?" "What competencies did you develop leading the university projects?" and "What were the most influential factors affecting your leadership development?" This list was given to an "expert panel" consisting of three local university entrepreneurship and qualitative research lecturers to ensure the content validity of the questions. The interviews lasted between 50 to 110 minutes

and were recorded on a digital audio recorder and transcribed verbatim within 48 hours of the actual interview.

Building upon the processes proposed by Grbich (2007), the data analysis was performed through two main procedures. First, "preliminary data analysis or during data collection analysis" that was carried out after each interview had been conducted. The preliminary data analysis was conducted through reading the transcribed interview over and over, and this was aimed at investigating the emerging issues, potential themes, gaps in data, and future research directions. Second, "thematic analysis/ post data collection analysis" refers to the process of reducing data to manageable and meaningful groups, categories, and themes based on research questions. The second phase of the analysis was carried out once all of the interviews had been conducted. The thematic data analysis was conducted through one of the two approaches, "block and file", where the researchers read all the interview transcripts and the underlined parts where the students described their entrepreneurial leadership learning. Then, the researchers read the underlined parts of the interviews to identify the emerging issues and themes on students' entrepreneurial leadership development. Through "conceptual mapping", the researchers labeled the emerging issues in relation to the process of the students' entrepreneurial leadership development, identified the interconnections between different processes and mechanisms of leadership development of the students,

and drew the connections among them to visualize the interconnections between the different themes.

The trustworthiness of our findings was ensured by employing several techniques. First, the trustworthiness of our findings was improved by providing detailed transcriptions and field notes, and also checking the findings against any biasness by presenting our codes, themes, and findings to some of our colleges who are involved in entrepreneurship research (Bogden & Biklen, 2003). Moreover, students who have been highly involved in leading the university entrepreneurship clubs and activities were selected through the university entrepreneurship programme coordinators and their friends to address the biases in the participant selection and also avoid the selection of those students who merely held the positions but were not fully involved in leading the projects. Furthermore, the data collection methods were triangulated by member checking with the participants, whereby the transcribed interviews were sent out to the students for content validity confirmation and peer reviewing and the findings were also presented to a group of colleagues who are involved in entrepreneurship research to avoid any biases (Creswell, 2007). The results of the data analysis and the emerging themes are detailed and discussed in the following sections and in the conclusion.

FINDINGS

The main purpose of this study was to understand the mechanisms through which students' entrepreneurial leadership competencies develop. Analysis of the data revealed students' entrepreneurial leadership competencies develop through two main processes including experiential learning and social interactive learning.

How do students learn entrepreneurial leadership through experience?

A dominant theme in the students' entrepreneurial leadership development was that they developed their entrepreneurial leadership competencies by practicing a leader's roles and tasks in entrepreneurship projects and activities. Firdaus stressed on this by saying, "I understand that ultimately what develop me are my experiences and how diverse my experiences [are]". He further highlighted the significant influence of performing the roles and tasks of the leader of entrepreneurial projects in developing his entrepreneurial leadership capabilities:

> *How the [entrepreneurship] activities were able to give me the skills is [by] exposure. They have projects. The projects put you in a situation to challenge yourself. Doing the real works, I learned about goal setting, how to manage our people, and everything.*

The experience of leading entrepreneurship projects gives Redwan everything he wants "to learn in terms of business," as explained in the following; "because currently we are doing two mega

projects. So through these projects we can learn a lot. I am exposed to lots of things that I didn't know.." When asked which factor was the most effective in developing his entrepreneurial leadership competencies, Hakim replied:

The activities, because I am doing the work. I am in a team. It is important to manage a team because I need to complete this work in a certain deadline. So I have to achieve the objectives by managing the team and distributing the work [and understanding] how to work with people. When you have this leadership experience it is easier [for you].

As observed, experiential learning that occurs directly through carrying out the tasks required of an entrepreneurial leader develops students' entrepreneurial leadership. More importantly, a huge amount of the students' entrepreneurial leadership learning occurred by facing the challenges and problems associated with the performance of leadership tasks in entrepreneurial projects and activities. The students highlighted the lack of "interest and commitment in entrepreneurial activities", "confidence and self-efficacy in entrepreneurial abilities", and "cultural and background differences" among their group members as the most serious challenges they had to cope with when leading the university entrepreneurship clubs and projects. However, the impact of these

challenges and problems on the students' entrepreneurial leadership development differs among students and this highly depends on the problems they have been encountered with.

On the importance of facing challenges in order to learn how to cope with them and, thereby, to develop leadership skills, Saif explained two of the challenges he faced in leading the entrepreneurship club. One was lack of commitment in club activities; where the students joined the projects "but they ran off when doing the projects." His other problem was recruiting new members because most of the students were not interested in entrepreneurial activities. He further described what he learned about human relations through facing these problems, "What I learned from that is human is a very complex machine. So, I need to be very well prepared if I want to influence them. So I must have [the ability] to control damages on time." Lack of members is also a problem for Hakim. He expressed how facing this challenge developed his creativity through thinking of new ideas on how to solve it:

Right now, the first problem is a small number of members. So I need to have new ways to attract new members. So I need to have a new approach. From this I can train myself to think creative[ly].

Meanwhile, the lack of confidence and self-efficacy among the group members and losing many of them after a project had

not gone as planned were the most serious challenges that Zahid had to cope with. He explained how dealing with this challenge changed his attitude toward failures and improved his awareness on his weaknesses in interpersonal and leadership skills:

Well, I learned how I should integrate and how I can learn to adapt to certain situations. I also learned how to delegate the tasks to the people. How to follow up with them and encourage them to do their tasks. Because sometimes half way certain people may give up soon. So I have to motivate them back and push them to the right track. By that, I realised that failure is just part of life and that I had to learn to cope with it. By this mentality and mindset, I tried to think that failure is just a lesson to learn and I learned a lot from the failure that I should communicate more with the people and share my vision with them as well.

When asked about how he developed his leadership skills, Firdaus described that facing difficulties in communicating with students from different cultural backgrounds changed his attitude towards challenges and failures, improved his perseverance to "more proactively take the challenges", and caused him to get more engaged in leadership activities:

I took one project at that time. I faced some challenges and I

acquired some new mindset about challenges. I mean how to work with people. Because these people have different cultures [which] I need to understand. Now my mentality towards challenges and failure is that it is going to happen anyway. The failures are like, the higher you want to go the more you will experience them. So it is no excuse that I cannot. So from that I thought to take the initiative to get more involved in leadership.

In addition to the impacts of students' direct experiences of leadership roles and tasks on their entrepreneurial leadership competencies development, a second emerging theme in the process of students' entrepreneurial leadership development involved learning through observing behaviours of other students who lead university entrepreneurship clubs and projects and their related outcomes, a process known as "Vicarious learning" (Holcomb *et al*., 2009; Kempster, 2009). Vicarious learning not only improved students' confidence and motivated them to develop their entrepreneurial capabilities, but it also functioned as "invaluable short cuts" (Kempster, 2009, p. 452) for them to learn about the processes through which other students "interact", "face the challenges", "settle the problems", and "get the things done." More importantly, vicarious learning for students mostly occurs through observing the successes and positive outcomes of other students'

leadership behaviours. For instance, Saif stated that "your leadership skills will improve by learning [from] other students' experience and you can take the good thing and implement it." Further into the interview, he described how meeting other students and knowing about their success in leading entrepreneurial activities improved his confidence to enhance his leadership skills to be able to lead his own venture:

Because I already met some [students] who were younger than me. But they already have a company. They already have their own income. It is not a small income, it is a big income. They are very serious and work hard. But still they are at the age of only 19. So this built up my confidence... because he has that leadership skill people listen to him. So this built up my confidence to become like that.

Similarly, Ariif emphasized that meeting various students from all over the country in an entrepreneurship competition and observing how they developed their entrepreneurial skills and projects enhanced his awareness of his weaknesses and creativity in developing new business ideas:

When I first went there representing my university [and] to voice our project, I thought we were good enough for the project. But when I saw others that they were doing very well at their projects, how they were thinking, I mean how they did

all the stuff. Their project was in the world class. By seeing that, I wanted to dream more, I wanted to do something like that. Maybe before this, we liked to give talk or something like that. But maybe for next event we want to change the society or make something new from something old.

In addition to experience, social interaction emerged as another learning mechanism for students' entrepreneurial leadership learning and development. It is worth mentioning that all the students considered both experience and social interaction as to be the most critical factors affecting their entrepreneurial leadership development.

How do students learn entrepreneurial leadership through social interactions?

Social interaction was the common learning mechanism through which all the participants in the study reported having developed their entrepreneurial leadership competencies. On the importance of social interactions in developing his entrepreneurial leadership competencies, Firdaus stated that, "In entrepreneurship, you mostly deal with people, your clients, your customers, your suppliers, your workers. [In] this world you cannot run from people." In fact, it is through social interactions with lots of various people from different backgrounds, experience, and knowledge that the students improved their self-awareness of abilities, creativity and innovativeness in developing new business

ideas, and their confidence and maturity in their communication skills. Kempster (2009) highlights the significant influence of availability, variety, and diversity of social interactions with "notable people" on entrepreneurs' leadership learning and development. In the context of this study, those with a particular influence on students' entrepreneurial leadership development appeared to be their peers and seniors, entrepreneurs, people from companies and industries, sponsors, and academic advisors and professors who shared their knowledge and experiences and encouraged the students to take the lead in entrepreneurship activities and projects. Mostly, academic advisors and professors encouraged the students to lead entrepreneurial projects by improving their confidence in their leadership skills, as Ariif emphasized. Similarly, Hakim explained how "interaction with a lot of different people doing different kinds of businesses" enhanced his creativity and innovativeness to "develop new business ideas…to create something new…[or] develop what we already have, and make them for more multiple usage or more useful [with] less costs."

In response to the question about how social interactions helped him to develop his entrepreneurial leadership skills, Zahid commented that "most importantly is communication, because we have to communicate with each other to get things done. If I am just the only one person doing the job and don't communicate with my people, then the project won't go anywhere". He continued to explain

that through interaction with various people, he developed his ability "to cope with people, because certain people have certain personalities, and by [knowing] that personality I can really cope with them and learn how to work with them". Meanwhile, involvement in various social interactions as a function of being a leader in entrepreneurship activities helped Saif to recognise personal differences among students and think about how he should change his communication approach to better influence and lead them:

> How the club helped me to develop my leadership skills is how to convince people to come to meeting and to make an event. To convince people to [do] specific tasks. That improved me by understanding people. How to talk to them. How to cooperate with so many different kinds of attitudes. Because different people have different backgrounds. So I have to talk to this kind of person like this, I have to talk to this kind of people like that.

Interestingly, three of the participants spoke of learning leadership through group dynamics or "conflicts" that occurred in their teamwork. In order to deal with the conflicts, the leader needed to employ his leadership skills and communicate with students involved in the conflicts. This process improved students' leadership capabilities, as Firdaus described. In a similar way, Redwan faced conflicts among

members in some events. He further explained his efforts to influence and unify his group members to work together by reminding them that "if we don't work closely together, it is very impossible for us to work. Only if we work together, we will be successful."

DISCUSSION AND CONCLUSION

The main purpose of this study was to gain a better understanding of entrepreneurial leadership development, in particular, how university students as the prospective entrepreneurial leaders who need to be prepared for specific leadership tasks and roles either in their own businesses or in established organizations, developed their entrepreneurial leadership competencies (Kempster & Cope, 2010; Gupta *et al*., 2004). The findings revealed that students developed their entrepreneurial leadership competencies through two main processes, including experience and social interaction. The two processes are highly interdependent since, as students explained, leadership practices in an entrepreneurial context cannot be conducted without social interaction. This highlights the importance and necessity of providing students with the opportunities to learn and practice entrepreneurial leadership competencies through both experience and social interaction and exploiting the synergy between the two processes of entrepreneurial learning to better develop students' capabilities to lead entrepreneurial activities (Pittaway & Cope, 2007).

With regard to experience, the students learned entrepreneurial leadership competencies by acting as leaders in university entrepreneurship activities and facing the task performance demands and leadership challenges and problems which accompanied the role. In organisational settings, Gupta *et al*. (2004) concluded that one's entrepreneurial leadership capabilities are developed by being involved in leadership roles and tasks in entrepreneurial activities and facing the challenges and crises of leadership task performances. Kempster and Cope (2010) and Kempster (2006) also emphasized the role of experiencing real roles and tasks of the leader for entrepreneurs in developing their entrepreneurial leadership capabilities. Therefore, it can be concluded that learning by practicing the leadership tasks and roles is one of the critical mechanisms through which individuals can learn and develop their entrepreneurial leadership competencies.

In performing the leadership tasks and roles, the students experienced various challenges and problems which influenced their entrepreneurial leadership learning in many ways. First, the challenges improved the students' self-awareness and changed their attitudes towards challenges and failures involved in a new business leadership and enhanced their perseverance in overcoming problems (Politis & Gabrielsson, 2009). Second, challenges motivated students to proactively face the difficulties associated with leading entrepreneurial activities and develop their entrepreneurial leadership capabilities in preparation for more serious challenges in the future (Fayolle & Gailly,

2008). Moreover, the problem solving process associated with entrepreneurial leadership enhanced students' creativity by developing their thinking skills (Politis, 2005). Finally, experiencing entrepreneurial leadership challenges improved students' communication skills and their ability to influence and direct their group members.

The most important challenges that the students faced were the lack of interest and commitment in entrepreneurial activities, confidence and self-efficacy in entrepreneurial abilities, and cultural and background differences among the students. Gupta *et al*. (2004) also highlighted the lack of commitment to entrepreneurial vision as one of the main challenges that entrepreneurial leaders in organizations have to cope with. Therefore, one of the main areas which entrepreneurial leaders may need to develop is their competency in improving their followers' commitment toward entrepreneurial activities and their entrepreneurial self-efficacy. In addition, the students participating in this research had also faced the challenge of coping with the cultural and background differences among their group members. In order to successfully lead entrepreneurial activities, entrepreneurial leaders may need to be alert of their group members' backgrounds, particularly in occasions where their group members are from different cultural and ethnic groups.

This finding supports the need for providing various experiential learning opportunities and challenging activities for students through which they can experience problems and failures involved in the real-life of entrepreneurs with less risks and thereby develop their entrepreneurial capabilities (Fuchs *et al*., 2008; Fayolle & Gailly, 2008; Pittaway & Cope, 2007; Hannon, 2006; Heinonen & Poikkijoki, 2006), particularly their entrepreneurial leadership competencies (Okudan & Rzasa, 2006). However, entrepreneurship education in Malaysia is still dominated by the traditional methods of teaching entrepreneurship, such as lectures and the least attention has been directed to providing the opportunities for students to experience the real life of entrepreneurs (Cheng *et al*., 2009).

In addition to learning from direct experiences of leadership roles and tasks, students learned and developed their entrepreneurial leadership through observing the outcomes of other students' behaviours, a practice that is known as "vicarious learning" (Holcomb *et al*., 2009). This confirms the importance of observation in entrepreneurial leadership learning (Kempster & Cope; 2010). Vicarious entrepreneurial leadership learning not only improves the students' confidence in their ability to lead a business venture and motivated them to develop their entrepreneurial capabilities, but it also functions as "in valuable shortcuts" (Kempster, 2009, p. 452), through which they could explore the leadership processes by being exposed to other students' experiences in leading entrepreneurial activities. Interestingly, students' entrepreneurial leadership learning occurs more through their observations

of other students' successes and positive outcomes of their entrepreneurial behaviour, while entrepreneurs' vicarious learning occurs more frequently by observing their own business failures (Holcomb *et al.*, 2009). These findings highlight the importance of providing opportunities for students to analyse factors contributing to entrepreneurs' success and failure in leading their entrepreneurial ventures (Anderson & Jack, 2008). In more specific, if the entrepreneurial leaders were selected among the students who were successful in leading entrepreneurial activities, they would observe and analyse the processes through which the students had developed their entrepreneurial competencies (Fuchs *et al.*, 2008).

The second critical process through which the students learned their entrepreneurial leadership competencies was social interaction. In contrast to Nicholson's (1998) findings that entrepreneurial leaders are resistant to the socialisation that shapes their managerial capabilities, the findings of this study indicate that social interactions play prominent roles in developing students' entrepreneurial leadership. In fact, social interactions with various people who differ in terms of their knowledge, experience, and perspective play a critical role in students' entrepreneurial leadership development by improving their confidence and maturity in communication skills, their creative thinking to develop business ideas, and their problem solving abilities (Fuchs *et al.*, 2008; Ko & Butler, 2007; Rae, 2006).

For the students involved in this investigation, peers and seniors, entrepreneurs, people from companies and industries, sponsors, academics were those with influential impacts their entrepreneurial leadership learning. These interactions improved students' confidence in their leadership abilities and enabled them to take the leadership position in entrepreneurial activities. Accordingly, educators may need to provide various opportunities for students in different contexts to interact with people who are involved in entrepreneurial activities and thereby develop their entrepreneurial leadership competencies (Heinonen, 2007; Pittaway & Cope, 2007; Souitaris *et al.*, 2007; Zhao *et al.*, 2005; Peterman & Kennedy, 2003). Kempster and Cope (2010) suggested developing "leadership learning networks" through which entrepreneurs could learn leadership by being engaged in "meaningful dialogue, critical reflection and purposive action with their peers" (p. 5). Interestingly, conflicts that occur through group dynamics helped the students to develop their entrepreneurial leadership by improving their self-awareness of their leadership weaknesses, enhancing their ability to build up their followers' commitment to the objectives of the entrepreneurial activities, and their creativity (Pittaway & Cope, 2007).

It can be concluded that entrepreneurial leadership learning as a complex process needs provision of particular learning opportunities that develop the specific leadership competencies required for

leading entrepreneurial venturing (Kempster & Cope, 2010). Currently, some elements of experiential and social interactive learning may exist in entrepreneurship education and training programmes, but providing a combination of all these aspects through an integrative and holistic approach seems to develop students' entrepreneurial leadership qualities more effectively (Anderson & Jack, 2008). Nonetheless, this particular issue has been given very little attention by entrepreneurship educators, specifically in Malaysia (Cheng *et al.*, 2009).

Although the findings of this study have provided a deeper understanding of entrepreneurial leadership learning and development, the methodology employed in this study has its own limitations that should be noted. The qualitative approach employed is limited in terms of generalizability to other contexts. The data, therefore, are highly contextual and the findings should be limited to students who are engaged in leading university entrepreneurial clubs and activities in the settings covered by the purposive sample. However, the authors attempted to minimize this limitation by choosing the participants from both public and private universities and different education backgrounds.

FUTURE RESEARCH

This paper contributes to both theory and practice by expanding our understanding of university students' entrepreneurial leadership learning and highlighting the pervasive role of learning that occurs through experience and social interaction in developing entrepreneurial leadership competencies. Accordingly, entrepreneurial leadership development may be encouraged by providing opportunities for students to lead entrepreneurship projects and activities (Okudan & Rzasa, 2006). However, further research needs to be undertaken to identify the factors affecting the process of entrepreneurial leadership learning among university students. Moreover, learning from challenges, failures, and conflicts, as well as the impacts of these challenges in developing students' entrepreneurial leadership is one area which requires further investigation. Future research can also be done in developing a theory and a model for entrepreneurial leadership learning and development. Future studies can also be undertaken to develop effective methods for embedding experiential and social interactive learning in the current entrepreneurship education systems. Finally, the effectiveness of experiential and project-based methods of entrepreneurship education in developing students' entrepreneurial leadership competencies could be subjected to further examination.

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Resistance Against and Collusion with Colonialism: Eileen Chang's Writing and Translation of "Steamed Osmanthus Flower Ah Xiao's Unhappy Autumn"

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ABSTRACT

Despite rising to stardom with her brilliant writings in Shanghai in the 1940s, Eileen Chang was criticised by the Leftist writers of her time and other later critics for failing to represent the general political panorama in China. In fact, they studied her works only with regard to the relations between her and China, but ignored the relationship between her, a writer of a semi-colonised nation, and the colonisers. However, through the analysis of her Chinese short story "Steamed Osmanthus Flower Ah Xiao's Unhappy Autumn" (1944) and her own translation of it into English entitled "Shame, Amah!" (1962) after her migration to the United States, this study explores how Chang resists colonialism through various means in the original text, and how such resistance is largely changed to collusion in the translation. The comparison between the source text and the translation reveals the dilemma of the diasporic writer - under the powerful domination of the host society, assimilation is inevitable; but at the same time, the writer is also trying hard to hold on to his or her own cultural traces.

Keywords: Resistance, collusion, migration, power

INTRODUCTION

Eileen Chang rose to stardom in Shanghai in the 1940s with her brilliant writings, but she came under criticism both from the Leftist writers of the era and subsequent critics for failing to represent the general political scene in China at the time; they claimed that she put China's invasion by the Japanese aside, to focus only on narrow subjects and reflect only ordinary characters (Liu, 2000, p. 552; Zhou, 2003, p. 9-10). These critics limited their studies on Chang's works to her relations with China, but ignored the relationship between her, a writer from a semi-colonised nation, and the colonisers. This study, however, explores how Chang positions herself within the

coloniser/colonised relationship through the analysis of her Chinese short story "Steamed Osmanthus Flower Ah Xiao's Unhappy Autumn" (1944; henceforth "SOF") and the English translation of the same story by herself after her migration to the United States, and reveals the oscillation of her attitude towards colonialism over time and space in the frame of postcolonial, gender and translation studies.

In colonial discourse, the coloniser was at an absolute superior position to the colonised. This distinction was essentialized through various European branches of knowledge about the Orient as well as literary works (Said, 1979, p. 39-40). Among these branches of knowledge, racial theory had a large role to play. As early as the 1770s, J. F. Blumenbach classified the human races into twenty-eight kinds, claiming that the pure origin of man was the white male, whereas all other forms were inferior (Young, 1995, p. 64-65). The treacherous part of such racism lied in that it proved to the West and the East at the same time that the colonised were "intrinsically inferior, not just outside history and civilization, but genetically pre-determined to inferiority" (Ashcroft *et al.*, 2000, p. 47). Therefore, their subjection to the coloniser became a natural result.

Peculiar to the male-dominated Orientalist discourse, the imperial women writers' perspective was rather problematic. On the one hand, they were "empowered by colonialism" and assumed a superior position (McLeod, 2000, p. 49). They adopted male Orientalists' perspectives to lend value and significance to their writing so as to get acknowledged in the mainstream society. On the other hand, their inferior position in the Western patriarchal society might result in their "partial and problematic accord" with the colonised (ibid). The ambivalent positionality of the imperial women writers is similar to that of the diasporic Asian women writers in the Western countries. As the marginalised Other, they are eager to get acknowledged by the host society, thus having to adopt the mainstream perspective in relation to their fellow people. Nevertheless, their love of the homeland makes them cling to their cultural heritage, however flimsy it is, in their writing.

When it comes to their translation, the same ambivalent attitude remains. As is claimed by Andrew Lefevere, "Translations are never produced in a vacuum, and they are also never received in a vacuum… Translation always takes place in a certain context, one context is that of history; the other is that of culture" (2004, p. 3). A specific literary translation work cannot be isolated from the context in which it is produced. The society inevitably leaves its traces on the translator with its ideologies and poetics, thus influencing his/her translating strategy and resulting in his/her compromise with the target culture. As far as the diasporic writer/translator is concerned, their desire to get accepted by the host culture and their love for their homeland culture make the translated text an intense scene of struggle.

RESISTANCE AGAINST COLONIALISM

"SOF" was set in Shanghai in the 1940s, against the backdrop of China being a semi-colony, and Shanghai being one of the early five treaty ports open to imperial powers. Britain, the US and France had so-called international settlements in Shanghai, where they settled, conducted business and ran their own administration. Natives were inferior beings in the eyes of these imperial forces, and they exerted their power over the former to such an extent that "the usual demarcation of public and private space by class was joined to demarcation based on 'race'" (Bicker, 2004, p. 43), where Chinese people were forbidden to enter public gardens and private clubs.

However, "whenever power is being exchanged [and] circulated, the possibility always exists that it can be reversed, transformed and resisted" (Barker, 2000, p. 37). As a resident of Shanghai, Chang would thus have been familiar with the coloniser's exertions of power over the colonised locals, and as a writer she tried to reverse these power relations through her short stories. For instance, Chang portrays the colonisers as either pathetic or stupid, and criticises the damaging effects of colonialism. In most of her stories, colonisers largely function as background characters, but in "SOF" Chang depicts a direct confrontation between colonisers and locals. "SOF" is the story of Ah Xiao, an amah working in Shanghai, over the course of a day. While the subject matter may appear to be trivial, it nevertheless exhibits her sharp critique of colonialism. And as opposed to the common discourse on colonialism, Chang places Garter, Ah Xiao's Western employer, under her scrutiny, reversing the power relations within the critical concept of the gaze, where the colonised becomes the subject of the gaze, and the coloniser the object (Bhabha, 2002, p. 89), which has the effect of shattering the colonisers' sense of superiority.

The term "Master" is used as a metaphor in the story. It refers both to the term Ah Xiao uses to address Garter, and to the status that colonisers assume they hold in China: they are masters to the subordinate natives. But this status is far from being unproblematic, because Garter's position as the master is mocked by Chang. As the 'master', Garter makes no exception in exploiting his servant, but his exploitation is made to come across as funny, exhibiting his meanness and ridiculousness. For instance, because he has spent money to hire Ah Xiao, he keeps "ringing the bell for her until he [has] her running in circles" (Patton, 2000, p. 81).[1] Garter's mannerisms appear all the more funny, especially when it is predicted beforehand by Ah Xiao. For instance, he lets Ah Xiao off two hours earlier one day, and she expects that he will be particularly hard to please the next. Garter is also portrayed as being stupid and suspicious; he suspects Ah Xiao will not work hard

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[1] The original text is written in Chinese, and since Chang quite heavily omits some parts in her translation, we will use Simon Patton's translation (collected in *Traces of Love and Other Stories*) when the source text needs to be quoted. Chang's translation is used only to show divergences from the source text.

when he is out for work, so he soaks all his bed sheets, towel, and shirts together in the bath tub, resulting in the colour of his shirt coming off. His suspicion of Ah Xiao reflects the Orientalists' conception of the sly Chinese (Said, 1979, p. 117). All in all, it is through Ah Xiao's contempt of his deeds, that Garter's meanness and stupidity are presented vividly, which thus negates the self-vaunted social position of the coloniser.

Ah Xiao's contempt is also directed at Garter's moral decadence. The latter has a number of girlfriends—which include the yellow-haired woman, Miss Li, who might be a rich man's concubine, and a dancing girl—but he is devoted to none. He is used to seducing women. He talks in a very soft and sweet voice with any woman, even with Ah Xiao. Ah Xiao's comment is that he is "determined to make women like him, regardless of who they were" (Patton, 2000, p. 66). Nonetheless, he lacks the determination to commit to any woman—the ideal lover in his eyes is represented by a picture of a naked model hung on his wall, but he feels that even if he comes across such a woman, he will simply revert to type and take advantage of her. He is like a beauty no longer at his prime, so he needs to be "more economical with time and money"; moreover, he now thinks that women are "more or less the same" (Patton, 2000, p. 71). Garter's lack of moral fibre can be seen as a mockery of the arrogance of the colonisers, which destabilises the notion of their self-expressed moral superiority. Furthermore, since Garter is portrayed as not possessing the familiar "aggressive male sexual impulse of colonisation" (Racevskis,

2006, p. 76), namely the masculinity to conquer and subdue Oriental women, Chang is able to deconstruct the binary opposition between a "sexually aggressive colonial impulse and the kind of passive female victimhood" of the colony (*ibid*.).

The author's mocking of the colonisers is reinforced by Ah Xiao and her friend's complaint towards their respective foreign employer - Garter and the yellow-haired woman:

> *Their male employers were like the wind, rushing about helter-skelter, blowing up dust, while the women resembled the ornate carvings on expensive furniture, so particularly attractive to dust that they were kept busy cleaning from morning to night (Patton, 2000, p. 68).*

Although the two amahs utter their criticism naïvely—equating their employers' moral decadence merely to the inconvenience they have to encounter in their daily work, the understatement only serves to highlight the irony of the conversation, which readers are left to infer by themselves.

The criticizing force can also be seen in Ah Xiao and her friend's gaze into Garter's bedroom. In the revealing sunlight, they see a Peking opera mask, red and blue rugs of Peking style, and a waste basket in the style of a Chinese lantern. In their eyes, Garter's bedroom is just like "the boudoir of a high-class Russian prostitute who [has] gathered some Chinese odds and ends to build herself a nest of peace

and happiness" (Patton, 2000, p. 69). As Ashcroft (2000) states, "the freedom of the gaze depends on the security of the position from which it is being directed" (p. 228). Theoretically speaking then, the colonised are not endowed with the authority to direct their gaze at the colonisers, but Chang negates this by making Ah Xiao and her friend criticise the stinginess of their masters, and as a contrast, to examine Miss Li's expensive gift to Garter. This makes their act of entering Garter's bedroom natural, and more importantly gives them a kind of moral authority to inspect Garter's private space. This is a case of the empire writing back, wherein Chang reverses the imperial women travel writers' gaze at the domestic space of the Orient. The threat of Ah Xiao and her friend's gaze is embodied in their comparison of Garter's bedroom to a prostitute's boudoir; the castration of the displaced colonial desire and the further feminising of the claimed masculinity of the colonisers.

Ah Xiao and her friend's gaze also covers the picture of a nude Western model hung on the wall. They inspect the model's hair, skin, breasts, stiff body frame,"exaggeratedly slim waist," and "large brown eyes indicating neither pleasure nor voluptuousness that gazed out blankly at her viewers" (Patton, 2000, p. 70). This description is virtually a replacement of a Western woman for the famous Hottentot Venus.[2] Fixed in the picture, the Western

[2] The Hottentot Venus was a young black woman transported from Africa and displayed in Britain and France in the early 19th century. Every part of her naked body was left open for the viewers to inspect with prurient or scientific interest (Qureshi, 2004, p. 223).

nude model appears lifeless and exotic in the observer's eyes. Thus, Chang's writing back is really "using the master's tool" to "dismantle the master's house" (Lorde, 2003, p. 25). By putting the female coloniser under inspection, she exaggerates the coloniser's fallacy of inhuman treatment of the subaltern races.

The contrast between Garter and Ah Xiao can be seen everywhere in the text. In reality, Garter is the master, and Ah Xiao the servant; but this hierarchical relationship is inverted as far as morality is concerned. The colonisers were always claiming a moral superiority to the black as well as the yellow races (Young, 1995, p. 104), which were claims that were designed to subjugate the colonised races alongside military and economic exploitation. Nonetheless, what can be seen in "SOF" is that while Garter is promiscuous, Ah Xiao is a good wife and mother, while Garter is extremely stingy, Ah Xiao is hospitable and generous, and lastly, while Garter is hypocritical, Ah Xiao is sincere. Though Garter suspects that Ah Xiao steals his bread to give to her son (a groundless suspicion), he does not say anything, because"replacement for her would be difficult" (Patton, 2000, p. 65). However, as for Ah Xiao, even though she complains about him herself, she does not allow others to think lowly of him. When Miss Li says she wants to give a new bed sheet to Garter because the old one has torn, Ah Xiao defends his face determinedly, displaying her maternal instinct. These contrasts again make it evident that the colonisers cannot claim any innate moral authority or superiority.

Furthermore, Chang's portrayal of Ah Xiao shatters the common Oriental image in colonial narration: as the Other of the West, Oriental people constructed by Westerners tend to be "homogenized into a collective 'they' and described as an indistinguishable mass, void of individual details" (Park, 2002, p. 518). In colonial discourse, subaltern women are depicted as being passive and silent, needing in many ways to be represented by colonisers to be heard. In "SOF," Ah Xiao does not fit this stereotype:

> *The man is pettier than ten women put together…He says: 'Shanghai's a terrible place! Even the Chinese servants cheat foreigners!' But if he is not in Shanghai, he would have been killed off long ago in the foreigners' own war…I think he is getting cheaper and cheaper… It's no wonder he catches those diseases…He's much better now, but that medicine he was using made a mess of the sheets (Patton, 2000, p. 72).*

Her judgment of Garter may be based on her simple knowledge and value system, and her criticism arises from the perspective of her work, and thus may appear naïve, intuitive, and lacking in sophistication. However, it is this very naïveté that lends force to her opinions, making readers reflect on the coloniser/colonised relationship. While Chang's works may not describe the large-scale confrontation of the colonisers and the colonised, she instead gazes at the colonisers through the eyes of a relatively uneducated amah, who does not know much about class difference and colonial exploitation, and cannot be expected to resist the effects of colonisation on a theoretical level. It is this 'trivial' but objective portrayal of the private life of the coloniser that challenges the coloniser's authority.

However, being a servant of the foreigner, Ah Xiao *is* affected by Garter to some extent. This is most evident in her language. She tries to answer the phone in English, even if her English is not good enough, and always confuses her pronouns and syntax due to the influence of her native tongue. The hybridisation of her language is an effective means for Chang to deconstruct the domination of the colonisers. As Kobena Mercer maintains,

> *Across a whole range of cultural forms there is a 'syncretic' dynamic which critically appropriates elements from the master-codes of the dominant culture and 'creolises' them… The subversive force of this hybridizing tendency is most apparent at the level of language itself where creoles, patois and Black English decentre, destabilise and carnivalise the linguistic domination of 'English'… (qtd. in Young, 1995, p. 24-25)*

Ah Xiao's speech includes two voices—both the colonisers' and the colonised, so that "the discourse of colonial authority loses its univocal grip on meaning" (Young,

1995, p. 22). The appropriation of the colonisers' language decentres its integrity, making it lose the overriding superiority/ authority.

COLLUSION WITH COLONIALISM

In 1955, Chang migrated to the United States, where she tried to establish herself in the literary scene by writing in English and translating her own short stories. Being a writer from China, an Other, she found it difficult to achieve her goal, and she had to face the scrutiny of the press and her target readers. Under such circumstances, she had to make a choice whether to accept the target culture's "ideology and poetics," namely to "manipulate literature to function in a given society in a given way" (Bassnet & Lefevere, 2004, p. viii) or insist on her own. As Barker (2000) notes, "Insofar as power acts on the actions of the other, it incites, produces and engages the other in the possibility of both collusion and resistance" (p. 40).

Chang's own translation of the Chinese "Steamed Osmanthus Flower Ah Xiao's Unhappy Autumn" into the English "Shame, Amah!" (1962) exemplifies the above statement. The translation reflects her collusion with the colonial ideology and poetics of the target language and culture. At the same time, however, a feeble resistance is also maintained through keeping the universe of discourse of the source text; her manipulation of the text can be seen as a response to the manipulation of the host society over herself. Jessica Tsui Yan

Li (2006) holds that Chang is the one who knows her own intention the best, and that she is thus "free in terms of a 'drôit moral'" (p. 99-100). While this is true, what escapes Li's attention is that Chang's intentions can change over time and space: in America, Chang is an Other who is eager to rid herself of the tag, and she does so by positioning herself in such a way as to manipulate her text to be favourable to colonialism. The strategy that a translator adopts has much to do with his/her ideology, which is a result of the translator's subjectivity. In Chang's case, we cannot say for sure that her ideology has changed, but her change of intention causes the change with regard to the ideology she succumbs to.

This manipulation is manifested in the debasing of Ah Xiao's image while beautifying Garter's in the translation. In the source text, Ah Xiao is an industrious servant, hospitable friend, good wife and loving mother, but in the translation, Chang foregrounds her subaltern aspect. Chang's former fondness of Ah Xiao can be seen in the original title, "Steamed Osmanthus Flower Ah Xiao's Unhappy Autumn," which connotes Chinese culture. The desolation and melancholy of autumn is a common sentimental trope of the Chinese, especially among intellectuals. This is significant because it indicates that Chang regards Ah Xiao as a person with rich feelings capable of forming a deep emotional relationship to the outside world.

However, in the translation, the title becomes "Shame, Amah!", a phrase which Garter uses to mock Ah Xiao with when she

confuses 6 with 9 in taking down telephone numbers, and which thus foregrounds Garter's opinion of Ah Xiao. Chen Jirong (2009) states that the title is tied to the plot and theme of the story, and that it shows that it is Garter who should be ashamed, rather than Ah Xiao (p. 55). However, this comment is self-contradictory. If "Shame, Amah!" reveals the theme, how can it reflect Garter's shame? In our opinion, by using it as the title of her translation, Chang conveys to her target language readers that Ah Xiao is but a colonised woman who lacks basic knowledge—a lack which overshadows her other redeeming features, and which shows Chang's collusion with an Orientalist viewpoint.

In translating the story, Chang renders Ah Xiao into a subaltern silenced woman. In the source text, Ah Xiao is neither a pitiful creature, nor socially degenerate (Shuijing, 2000, p.73). She is financially independent and morally sound, the latter characteristic evident in her contempt of Garter and his like, as well as her loving relationship with her husband. But all of this changes in the translation; Chang goes so far as to add that her son "[is] not her son just as her husband [is] not her real husband" (Chang, 1962, p. 104). Moreover, Chang 'creates' another husband for Ah Xiao, who is working in Australia and is distinct from the one working as a tailor in Shanghai. She also presents the new husband through Garter, putting Ah Xiao firmly under the latter's gaze:

Her husband had already walked out onto the veranda…Schacht[3] pretended he did not see him. She had shown him an Australian pound note and asked him to address an envelope to Australia. Crimson and smiling, she told him she had gone to have a photograph of herself and Shin Fa taken and was sending it to her husband who was working in Australia. Apparently it was the first time he had ever sent her money. Then there was this tailor, said to be her husband. It was not uncommon, from what he heard (Chang, 1962, p. 107).

Chen (2009) believes that this addition to the plot is a reflection of Chang's opinion on marriage. Ah Xiao is shown to be merely cohabiting with her tailor husband; but even though without a more real form of marriage, they busy themselves with life and regard family responsibility as the material basis of the union. Their love is deep, tolerant and considerate (p. 57). This analysis does not seem to be entirely sound. Chang (2005) herself contends that compared with flirtation and whoring, cohabiting is ideal, since it carries more responsibility than mere flirtation, and is more humane than whoring (p. 20). Unfortunately, this still does not

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[3] Chang changes Garter's name to Schacht in the translation and makes it clear through Ah Xiao's mouth that he is German. This change of Garter's nationality from a native of an English-speaking country can be seen as a strategy to avoid displeasing American readers.

explain the 'creation' of a new husband for Ah Xiao, since her cohabitation with the tailor is already stated in the source text. We therefore contend that there is another purpose to this addition.

With this "additional" husband, Chang reduces Ah Xiao to the same morally degenerate position as Garter/Schacht, losing the force of contrast between the two characters. Ah Xiao is thus rendered into somewhat of a loose woman. Here, Chang places Ah Xiao under Garter's gaze, reverting back to the familiar coloniser/colonised pattern in Orientalism. With the 'knowledge' about Ah Xiao that Chang grants to Garter in her translation, Garter is endowed with authority over her. As Said (1979) asserts, this authority refers to the coloniser denying the colonised a sense of autonomy (p. 32). Ah Xiao is denied autonomy of representation, and becomes a typical passive and silent subaltern woman. The added husband in the translation, together with the change of her son to an adopted son, brands Ah Xiao with a sense of illegitimacy. This is exactly what colonisers perceive the colonised subject to be: a fake construction, built upon a series of lies. Worse still, by having Garter/Schacht state that "it was not uncommon," the negative representation is shifted beyond Ah Xiao and onto the general Chinese people.

Chang's translation also erases Ah Xiao's feminist subjectivity. In the original, she regrets that she cohabits with the tailor without having a wedding ceremony, but when she tells her husband about her friend's extravagance of the coming wedding, her husband just smiles but keeps silent. Then Ah Xiao has the following reaction:

> *This hurt her; it also made her angry. The worry was all hers, it seemed. It didn't make much difference to a man whether he got married or not. At the same time she also felt bored by the whole affair. Their child was a big boy now, so what use was there thinking about such things? It was true he wasn't supporting her, but he probably wouldn't have been able to support her even if they had been legally married* (Patton 2000, p. 107).

She feels it unfair that men and women are judged by different standards if they cohabit. In addition, she realises that marriage does not guarantee financial security: she has to support herself and her son, and sometimes even give him some money. This capacity for reflection indicates an intellectual independence, differing from the common view of Oriental women, who usually accept their social inferiority, and "do not long for the freedom enjoyed by European women" (Park, 2002, p. 527). In Chang's translation, however, this section is completely omitted, and conceals Ah Xiao's subjectivity from the target language readers.

Another obvious denial of Ah Xiao's subjectivity is the omission of the last five paragraphs of the source text. These paragraphs are important for two reasons. First, they correspond with the title and

indicate the coming of desolate autumn, revealing Ah Xiao's unhappy sentiment—a feeling that only an active subject is capable of. The weather (the significance of which is noted above) echoes the unhappiness Ah Xiao feels due to her employer, her unsupportive husband and her unsuccessful son (Zhang, 1996, p. 59-70). However, since these paragraphs are omitted, the story ends with Garter's reflection that Ah Xiao is not as beautiful in her sleep as she looks in the daytime, and his relief that he does not have an affair with her. This ending freezes, as it were, Ah Xiao as a completely silent native woman in Garter's gaze, her value lying only in being of use to the coloniser.

Moreover, in this section a comparison is also made between the pedlar's cry to sell the food, and drunken people singing foreign songs in the street at night. The foreign song is "flimsy and weak," and will soon "vanish" (Patton, 2000, p. 90). Nevertheless, the pedlar's cry is long and sad, and it seems like he is not only carrying some food to sell, but "all the cares of the world" (Patton, p. 91). Whoever the foreign-song-singers are, be it the colonisers or the assimilated natives, their voices will vanish. If we cannot definitively regard this as Chang's prediction of the future of colonialism in China, we can at least say it indicates Chang taking a defiant stance against colonialism. In contrast, the significance she places on the pedlar shows that she thinks the latter is the essence of the nation. Such opinions are in tone with the idea she expresses in her prose, "Epilogue: Days and Nights of China" (1947), wherein she voices her empathy

with poor people, and her identification with the mass and nation through her poem at the end:

> *My road passes*
> *across the land of my country.*
> *Everywhere the chaos of my own*
> *people;*
> *patched and patched once more,*
> *joined and joined again, a people*
> *of patched and coloured clouds.*
> *My people...*
> (Chang, 2005, p. 219)

In the source text, Chang elevates Ah Xiao and the pedlar to great significance, thus echoing her concern and identification with her people and her nation. Her very decision to omit these paragraphs demonstrates her denial, whether willingly or not, of this sentiment.

While silencing Ah Xiao, Chang also beautifies Garter's image at the same time, omitting any negative descriptions of him. As previously stated, Chang criticises colonialism through her mocking of Garter in the original. In the translation, however, she greatly negates this criticism. In the source text, Garter appears somewhat disgusting, as evident in the excerpt below:

> *The flesh on his face was like uncooked meat, bright red with traces of blood. Of late, he'd taken to cultivating an abbreviated moustache. This made his face look like a particularly nourishing egg which had already begun to hatch open to reveal a pair of tiny yellow*

wings. Nevertheless, Mr. Garter still passed for a handsome man. (Patton, 2000, p. 63)

In the translation, however, Chang's mockery turns into praise, with Garter/Schacht becoming "tall and handsome with a little moustache" (Chang, 1962, p. 95). Another significant change in Chang's translation is that she omits descriptions or comments comparing Garter to a prostitute, so that the metaphorical castration of the colonisers is avoided. Moreover, Ah Xiao and her friend's careful observation of Garter's bedroom is also greatly simplified, and the description of the nude Western model is completely omitted. Through such manipulation, Chang thus takes back the power that she has granted to the colonised in the source text, and the reversed coloniser/colonised relationship is restored within the Orientalist scheme.

Apart from an ideological compromise towards colonialism, Chang adapts to the target language poetics as well. The most obvious is the omission of the newlyweds living upstairs. In the original text, the presence of the newlyweds indicates Ah Xiao's reflection on marriage, so that she is presented as a woman of her own thinking. In the translation, Chang omits all subplots related to the couple. As Liu Shaoming states, when his American students discuss Chang's "The Golden Cangue,"[4] they normally keep silent because they are confused about the complicated relationship among the many different characters in the story (qtd. in Yang 2010, p. 59). In "SOF" too there are more than ten characters, and it can thus be inferred that Chang omits the plots about the newlyweds because she does not want to confuse her American readers. This still represents a kind of compromise to the poetics of the target language. While this compromise is not as obvious as that made with ideology, it nevertheless indicates Chang's choice of catering to the target language culture.

Nevertheless, though Chang quite obviously subjects herself to imperial ideology, and partially to the target language poetics, she struggles to keep some features of the Chinese universe of discourse[5] in her translation. For instance, she provides a literal translation of the Chinese ways of addressing each other, rather than assimilating them to the English ways, "aunt", "sister", and "brother" are used to address neighbours to show the intimate and harmonious relationship among the Chinese people and further stresses the collectivism which is supposed to be characteristic of Chinese people. Moreover, she sticks to phrases such as "the Ninth Moon" instead of using "September." In addition, Chang applies transliteration in some instances, with terms such as *hong* ("company"). Auxiliary words for certain moods or exclamations are also left untranslated, such as Ah Xiao's husband using "wei" instead of "hello" when he calls her. These literal translation and

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[4] "The Golden Cangue" (1943) is generally regarded as Chang's most successful novella (Tang, 1976, p. 124), which involves more than twenty characters.

[5] The universe of discourse refers to "certain objects, customs and beliefs" in a culture (Lefevere, 2004, p. 87).

transliteration are both effective ways to introduce Chinese culture; however, when set against Chang's ideological and poetic compromise, preserving the universe of discourse in the translation does not help much with the author holding onto her cultural identity.

CONCLUSION

Originally constructed as an excellent text to resist colonialism, "Steamed Osmanthus Flower" is transformed into a text largely subjected to the colonial discourse in its English translation. What lies behind the differences between the source and the target texts is the changing of the author's intention under the influence of her host society. While it is held that Chang resists general literary trends when in China, resistance is made more difficult after her migration to the United States. As a diasporic writer in the host land, she suffers an identity crisis; and to get acknowledged in the English literary field, she has to rid herself of her identity as the Other. She is compelled to do something to counter the claim that the Chinese "did not and never could assimilate with the whites" (Shen, 2006, p. 43). Hence, under the manipulation of American cultural hegemony, she turns to rewriting—adopting the colonialist view to comment on the characters in her story. As a result, the resistance against colonialism in the original turns out to fall largely into the scheme of Orientalism in the translation; the gaze at and judgment on the coloniser is turned back towards the colonised again.

Therefore, Chang as the translator negates her identity as Chang the writer. The famous contention that the author dies after the act of creation can apply in this case, the only difference being that Chang 'murders' herself, instead of being murdered by critics. Nonetheless, it is important to note that the assimilation is not all-encompassing; as an ardent lover of Chinese culture, she struggles to keep some of her cultural heritage in her translation. The clinging to the universe of discourse conveys the traces of Chinese culture to the target culture, but the subjection to the ideology and poetics almost overshadows such traces—the dilemma which the diasporic Asian writer has to face in the host society. Explained with Lacan's idea, the diasporic Asian writer's effort to get accepted by the host society is the entry into the Symbolic Order; he/she has to observe the law and order of the host society so as to be admitted into its signifying order. Only in this way can she get the legitimate identity.

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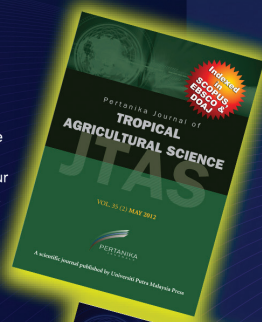
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