

Steroid-like
Prescriptions English
Language Teaching
Can Ill-afford



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ABSTRACT

English Language Teaching (ELT) is probably a science, an art and anything else in between. It can be studied yet no one knows exactly when it works best or how it terribly fails in some instances. So we in the profession can speculate on how it works best and by basing our strategies on the extensive amount of findings generated from research in the field. Yet somewhere between research and practice the devil within the decision maker appears and logic is abandoned for convenience.

WHY?

Because somewhere between ELT being Science and Art exists economics and consumerism so while science and art bring out the basic tenets of Best Practice, economics and consumerism intervene and develop what is logically possible within the reality of time, costs and logistics.

But can there be compromise made on this premise of economics and consumerism? The writer feels that this compromise is what keeps learners in ESL (English as a Second language) unable to attain acceptable proficiency levels in the English language, despite the fact our learners spend eleven years learning the language in primary and secondary school.

When mistakes are made because of desperate and hastily implemented programmes, the entire system in place for English language teaching is continuously repairing the damage from poor implementation. Repairing damage is about putting in place other hastily conceived remedies, which in my view is quite like introducing steroids to keep people going with a false sense of well being.

INTRODUCTION

What We Already Know About Learning and Acquisition?

Acquisition is “picking up” language, learning is about knowing and remembering “rules” of the language. Acquisition takes place in surroundings where the learner learns the language mostly sub-consciously while learning takes place in formal classroom situations. This of course would then mean that acquisition in 2nd Language or Foreign Language situations is probably impossible – mainly because there is no environmental support of the language outside the classroom. So, why should anybody be surprised at the large number of students failing the subject in rural areas in Malaysia? It is to be expected.

DISCUSSION

So What Do We Know About Best Practices in ELT?

The best Practices in ELT are probably like Best Practices in any field. So like doctors are expected to be responsive to patients’ needs the same would apply in the case of English language teachers – they have to be responsive to learner needs. But best practices are mere buzz words spoken at conferences in Malaysia. There is hardly any effort on the part of teachers, administrators and decision makers to consciously initiate change which is guided by “best practices”. In the discussion following I will state some of the best practices in ELT and illustrate how we have continuously breached the Best Practices as documented in ELT. I will provide four instances in the history of ELT in this country where our notions of good practices in ELT have been judged silly:

1. Learning and classroom teaching-learning are NOT the best ways to develop proficiency in English Language but we insist on putting undue emphasis on this.

It has been discussed widely, this potential of learning which takes place consciously and in formal situations like classrooms. The potential for learning in English as a Second Language (ESL) or English as a Foreign Language (EFL) to contribute to optimal language development in learners, researchers say is limited as classrooms lack the features of the First Language environment.

The conditions that make at least the spoken aspect of 1st language become acquired (unless there are issues connected to learning disorders) is that there is no learning, or the learning of rules of the language, neither are there classroom-like situations within a home. Acquisition takes place spontaneously and through trial-and-error method with possibly a lot of reinforcement and encouragement from family and community. Acquisition takes place sub-consciously and for this very reason there is minimal anxiety and apprehension.

The opposite is the case for learning a second or foreign language in classrooms. The teacher is not the learner's parent, the student's classmates are as helpless as he/she is, everything is controlled (lessons are developed out of agendas of a system (which include the curriculum, the syllabus and pre-determined templates of lesson planning) and the spontaneity and creativity of language play of interlocutors within 1st language communication is lacking. The very nature of the process of natural language development is ignored, made worse by a pre-determined agenda for learning grammar despite the fact that proponents of the Natural Order Hypothesis (Krashen, 1982) have so far predicted that what is

offered for learning may not be what the learner is ready to learn. The learner has his own agenda for learning.

If the mechanisms within learners are wired in such a way that there is not even a remote possibility of compromise in learner agenda-syllabus agenda conflict, then what are the possibilities of some form of gain within classrooms?

Some people think that at best we should just work towards minimizing the negative aspects of classroom teaching which include among others large classes, mixed-ability classes, under-prepared teachers, unrealistic curricular demands and teaching-testing mismatch. How would these conditions affect English language teaching?

- i) At the moment everything stated above (which works against 2nd or Foreign language development) exists in Malaysian English language learning-teaching situations. The typical Malaysian large class has 45 students with some classes reaching 50 students and to aggravate the situation students are streamed only according to overall academic ability not language competence. The consequences of crammed classrooms would mean very little responsive teaching takes place in lessons. No teacher can provide attention to all 45 students in a class within a 35 minute lesson. Neither can any methodology fit the requirements of teaching a mixed-ability class. And wasn't it quite clearly stated that new input has to be only 1 level higher than what learners already know?
- ii) The problem of under-prepared teachers is something that has serious implications on the quality of teaching. While some people may say that this is something strange with all the financial and infrastructure invested in training of teachers, people fail to realize the historical aspects of English language

teaching (ELT). ELT in Malaysia is still in its infancy in Malaysia. There was no TESL (Teaching of English as a Second Language) programme in Malaysia until UPM started one in 1982. All other programmes in Malaysia at that time were BA English programmes the majority offering either linguistics or Literature as core focus area. Most teachers with degrees from other universities were not trained to teach English as a Second Language and the effects of this were soon apparent when the medium of instruction in schools changed from English to Bahasa Malaysia. The country then realized that teaching English became a huge challenge.

- iii) The transformation of curricular through the decades immediately after independence showed how ill-prepared the country was in dealing with curricular adaptations which were required when the status of English became that of ESL (English as a Second Language) as opposed to English as Medium of Instruction. There was never a curriculum developed for ESL and this was mainly because of the strong post-colonial linkages that the country had with Britain. In fact it was because of these ties that the English language curriculums developed for schools never prepared learners for competency in the language. Why? Because Britain never had a history of developing curriculums for 2nd or Foreign language learners of English. The United States had that history (although fairly new) as in the 1940's they had a huge influx of foreigners who had migrated especially from Europe who needed to learn English in this new country. It was for this reason that methodologies like that of the ALM (Audio-Lingual Method) were developed. Soon researchers in the United States were also developing methodologies that were 2nd language learner friendly like CLL

(Community Language Learning), Suggestopedia and TPR (Total Physical Response) to minimize the negative effects of affect-related conditions like anxiety and apprehension (Larsen-Freeman, 2000).

While all this was happening in the United States of America, our beloved countrymen were groping to form curriculums through our ignorant former colonial masters, curriculums which mirrored English as a first language curriculum. Our students, even in rural Malaysia were forced to learn English through the harshest of syllabi, developed under the influences of the Structural Approach. What made matters worse was that they eventually had to sit for exit-level examinations like the Malaysian Certificate of Examination which in fact mirrored the Cambridge General Certificate of Education (GCE), one which even demanded of ESL/EFL learners competencies in essay writing which were at par with those in native speaker situations. Meanwhile, during this time in the United States, learners of English as a Foreign language/Second Language were treated like fragile crockery and made to only do controlled writing first so as to build confidence slowly before they were introduced to free writing.

- iv) The Teaching-testing mismatch is equally accountable for the tragedy of ELT in this country. The amazing thing however is that educators themselves believe that there are no alternatives. That this is the reality of the situation. How many times have testers been warned that the entire agenda of testing is flawed, that it defies logic and common sense? How can people believe that learners studying English for less than five thirty five minute periods per week can do a GCE-type examination at the end of 11 years?

2. Change should never be made without lengthy deliberation

Much of the problems that come from constant change in language learning policy are the result of people wanting to try new things simply for reasons of novelty value.

The country has syllabus changes for the English Language so many times from the days of the structural syllabus to the communicative syllabus to present day KBSM (Integrated Curriculum for Secondary Schools). The KBSM itself has had numerous additions to it at periodical intervals. Periodic changes to curriculums and syllabi should be managed well. Extensive field-testing has to be carried out if for instance, something old has to be replaced with something new.

The clear case of how poorly we manage change can be seen with curricular “add-ons” (Mukundan, 2008) that come with mid-stream curricular changes:

- i) The inclusion of the study on moral values for instance was done across board, which meant every subject, apart from the subject Moral Values had to incorporate aspects of moral values. English language was not spared and most teachers when asked to inculcate moral values decided that it would be addressed at the end of each lesson. Some of their lessons like on the theme “family” would have had numerous instances of morally right situations yet they would choose an even more explicit issue on morality at the end of the lesson to force home a moral point.

The inclusion of curricular add-ons not only made language teaching look more like addressing issues concerned with good citizenship, the already small allocation of time for the teaching of the subject seemed to have shrunk even further.

- ii) The inclusion of the literature component was another such instance where curricular add-ons seemed unnecessary. Implementers know that extensive reading seemed to, from the literature, have positive effects on the language development of learners but they seemed to be confused as to what type of reading would work best in the Malaysian context. As early as the 1970's the ELRP (English Language Reading Programme) was implemented in mainly residential schools. The programme in residential schools was a success but its pilot implementation in day schools soon proved that it was not to be very successful. There simply were a lot more reluctant readers in these schools. Instead of realigning the programme to fit into day schools the ELRP was hastily dismantled and in its place was the new Class Reader Programme which made it mandatory for the teacher to teach the reader in class. To aid teachers with this once a week thirty-five minute teaching period, the Ministry developed Teaching Files with printable worksheets for the teaching of the reader. Not many people realized that the Class Reader never made reading more fun for the learners. Instead when teachers started teaching the book, learners were subjected to the same English language lessons, mostly to do with reading and reading comprehension. The lack of interest in the Class Reader Programme by learners and teachers (mainly due to the reason that it was not tested in public examinations) soon led to its replacement. The Ministry soon put in place the Literature Component which would be tested in both the PMR and the SPM. This was surely a sign of defeat. The entire system had been manipulated for the sake of examinations. So we have now in place a literature programme which would be featured in tests. But how much is a test of literature of use for personal development of learners if it required one line responses to

low-order questions? And must programmes like this be in place playing the role of steroids to give learners a false sense of well-being?

3. Methodologies come and go, and some stay – only the informed teacher makes wise decisions. We seem not to have too many of these teachers!

English Language Teaching (ELT) has had a short but rich history and while new developments mushroom everywhere there is need for the decision-maker and teacher to be vigilant of new and untested directions. Some things developed may not work in learning-teaching environments like in Malaysia. One major development in Malaysia (in the 1980's) was the indiscriminate and total adoption of Process Writing. People at this time believed in “liberating” writers (Mukundan, 2011) much like the rallying cry of feminists. Peter Elbow showed how much learners would prosper without product-centred teachers in writing class with his all-important book “Writing without Teachers” (1973). The keyword of the era was “process” and proponents of this approach were similar to dictators who practiced ethnic cleansing. In this situation it was a cleansing of terminology and concept that was at one time in the past endearingly called “product”. Proponents of process not only called product out-dated and primitive, they associated it with most things negative – anxiety raising, teacher-centred and testing-focused as opposed to learner focused. This negativity on product-based writing was soon heavily associated to “authoritative teaching” (Murray, 1982). Malaysian academics and teachers went on and approved whatever was said about product-based writing in the developed world, not realizing that whatever new directions they would be taking were wrong.

In the late 1980s The Curriculum Development Centre in Malaysia became aware of the Process Approach in teaching writing and possibly believing this to be as learner-friendly as what the proponents claimed soon piloted it in some select urban schools. They claimed that it achieved success and went on to recommend it to all Malaysian secondary schools. Unfortunately most teachers and learners realized after a time that it never helped their cause. Many teachers felt that it was impossible teaching writing in a Malaysian classroom for several reasons:

- i) Process writing required teachers to read multiple drafts worked on by students. This required teachers to spend more time evaluating essays.
- ii) Students had to sit with peers for revision and spend time with the teacher during conference time. This meant there were very few topics that could be covered in a year. Teachers felt this was inadequate practice for examinations
- iii) Pre-writing became a very important phase of writing but many teachers felt that it was time wasted. Their rationale was that examinations never allowed writers the luxury of spending hours preparing for an essay.
- iv) Teachers felt that Malaysian learners were not ready for absolute freedom. These learners who have been dependent on the teacher and models of essays in books would consider the process approach something of a hindrance to examination preparation. In the eyes of the teacher, however, these learners would be viewed as caged animals set free and unable to fend for themselves in the wilderness. Freedom, after all may not be good for everyone. Most Malaysian learners have become dependent learners, trusting the teacher and the book. Learning

form peers and the concept of learner autonomy have not been appreciated widely.

The Process Approach lost its appeal (when teachers got their senses back) and after there were numerous complaints, especially from parents who obviously did not understand the workings of the approach. In the early phases of the approach, teachers were required to ignore grammatical problems in essays and focus more on content. The reason for this was for learners to be less anxious about errors and focus more on idea generation and content. This however was seen by parents as a deliberate attempt to reduce teacher evaluation load as grammatical errors went uncorrected in essays.

In summary what I am trying to state here is that methodologies have been adopted by countries in the developing world and by decision makers who have not been aware that they have inherited things that don't work, out of ignorance (Mukundan, 2011)

4. Materials cannot teach, teachers do, so no matter how sophisticated materials are they can amount to nothing.

The wonderful thing about education in Malaysia is that costs to parents are minimized. But sadly, some things free come with costs as well (Mukundan, 2003). The cost that is referred to here is in the damage done to learners' language development. And why do I say this?

i) Look at the amount of money spent by schools who want to believe that money spent on a language laboratory (the cheapest of which would cost around RM200,000) is justified! Justified in what sense, I ask as the tape-recorder can do the job nicely! Yes, many an administrator (like the Panel Head for English) would say that the present language laboratories can allow

practice for pronunciation via voice synthesizers that can check the learner's pronunciation against the native speaker model and provide graphical representations contrasting both. But how important is this as compared to other aspects of language development? Why should we subject learners to situations where they are made to feel like laboratory rats sitting in rows when the teacher can play tapes and CDs in class and get them to respond to listening tasks as well as get them to engage with tasks in collaboration (involving teacher and peers).

- ii) School textbooks are provided free on the textbook loan system and this cost the government billions of Ringgit (Mukundan, 2003). The amount of money spent on textbooks for all primary and secondary school students can only be justified in terms of the relief it provides to low income families, nothing else. In terms of quality there is very little good in the textbooks produced for English Language. From the physical aspects of the textbooks the main weakness seems to be that the books have too much crammed within the pages, something which Tomlinson (2011) says can be considered a major weakness as lack of white space in textbooks can bring about anxiety and apprehension in learners. Another weakness in our English language textbooks is that there are cost-saving measures in place which affect the overall quality of the textbooks. Audio materials which are supplied are minimal and of low quality as the cost of quality production which involves professional actors and recording services are high. Another weakness of the books is that they have a long shelf-life. The average commercial textbook has a shelf-life of 3 years (after which it is either revised or scrapped). The Malaysian textbook however stays for 15 years (Mukundan, 2003).

The ad-hoc development of textbooks has led to books lacking in features considered to be crucial pedagogically. There are some principles of materials development not adhered to in the development of the English language textbooks, chief amongst which are problems connecting books to vocabulary load and distribution patterns. In studies by Mukundan (2004) it was reported that vocabulary load and distribution in Malaysian textbooks seemed random. Vocabulary load seemed very big, in fact too big for second language learners of English. A Form Two book for instance has 48929 tokens (see Table 1) distributed very unevenly over the entire book (see Figures 1 and 2).

Table 1 Summary of the Statistics of the Form Two Textbook

Form Two Textbook	
No. of pages	203
No. of units	17
Ave. no. of pages per unit	12
Tokens	48 929
Types	3 856
Density ratio	0.1
Consistency ratio	12.7

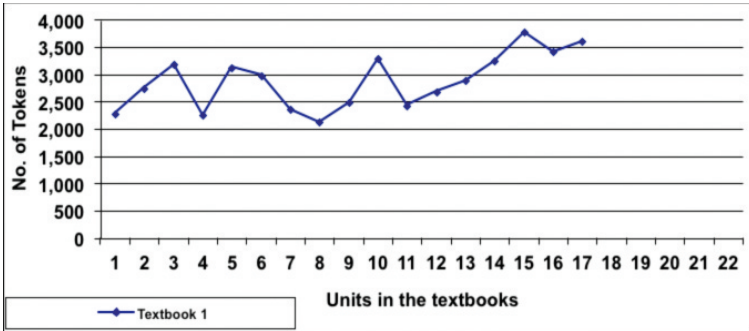


Figure 1 Distribution of tokens in Textbook 1

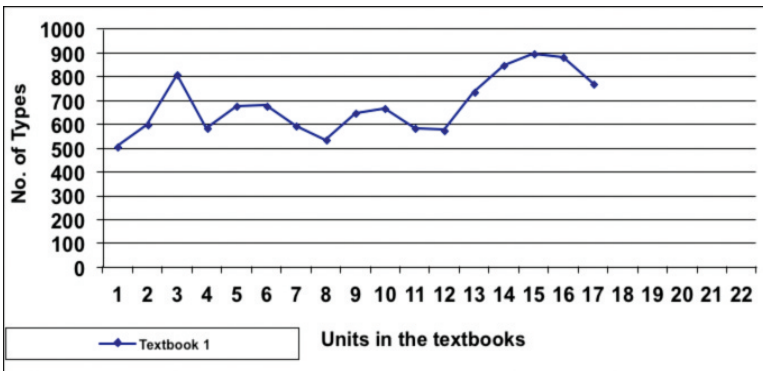


Figure 2 Distribution of types in Textbook 1

But what is even more disturbing to researchers is that the book has 3856 types (different words) much more than the 2000 essential words (words listed in wordlists like the GSL) required to learn English at this level. Another disturbing observation is that many of the words used in the textbooks (Forms 1-5) are not even in the 2000 High Frequency list (see Table 2).

Table 2 The number and percentage of the 2000 high frequency words in Malaysian secondary school English language textbooks (Forms 1-5)

	Form 1	Form 2	Form 3	Form 4	Form 5	All textbooks
Total number of types in the textbooks	4730	4738	5309	7788	7994	14732
Number of words found in the 2000 high frequency word list	1278	1264	1369	1549	1553	1861
Percentage of words appearing in the 2000 high frequency word list	63.9%	63.2%	68.5%	77.5%	77.7%	93.1%
Percentage of types in textbook appearing in the 2000 high frequency words	27.0%	26.7%	28.8%	19.9%	19.4%	12.6%

Repetition of words is an essential pedagogic strategy that textbook writers should be aware of. Again repetition is disregarded although research states (Mukundan & Aziz, 2009; Thornbury, 2002) that new words introduced should be re-introduced at least 7 times within the book across timed intervals. Most of the books do not meet this requirement (see table 3).

Table 3 Comparison of the Distribution of Vocabulary in two Form 2 textbooks

	Textbook 1 (FB) (Total: 3856 words)		Textbook 2 (SM) (Total: 3678 words)	
Words that appear in all units	1.7%	64 words	0.92%	34 words
Words that appear in half of the textbook	8.04%	310 words	4.7%	172 words
Words that appear once	5.1%	1960 words	5.6	2075 words

Another weakness of vocabulary management in textbooks is that recycling, another important requirement of vocabulary management is hardly met by writers of textbooks. The word “cook” for instance, in a Form 1 book appears in the noun form only. The verb form is completely left out of the book (Mukundan, 2004).

- iii) Early 2001 saw the Curriculum Development embarking on a Teaching Courseware development exercise to enrich the learning situation with newer learning-teaching resources. This they must have thought would improve English Language Teaching hopefully to arrest the decline in grades of students at PMR and SPM level. Teaching courseware was developed for Mathematics and Science (the medium of instruction of

these subjects was at that moment changed to English) and the English language itself. One can only assume that with a large number of Mathematics and Science teachers not being proficient in the English language, the purpose of having the Teaching Courseware was to have teacher-proof materials. This was also the case for the English language where there was concern for the falling standards of proficiency of English language teachers. Research on teaching courseware by Mukundan and Nimehchisalem (2011) showed that the Teaching Courseware developed for English language had, from the perspective of pedagogy, major flaws:

- a) Most of the lessons were patterned along the PPP (Presentation, Practice, Production) sequence which was rigid, linear and outdated.
- b) The teacher was reduced to the role of operator.
- c) There was a lop-sided emphasis on language skills and grammar and listening had a substantial amount of time.
- d) The courseware could not incorporate aspects of methodology. In fact there seemed to be a mismatch.
- e) The emphasis seemed to be more on testing than teaching.
- f) The time allocated for each lesson was insufficient.
- g) There was a certain degree of unnaturalness as the slide by slide approach of teaching resembled a lecture rather than teaching-learning style.
- h) There hasn't been a classroom in the world where learners are subjected to light from LCD projectors for a subject throughout the week! The courseware subjected Malaysian learners to this.

Apart from these flaws, the Teaching Courseware, teachers felt was an unnecessary addition to the textbook. The textbooks from the old cycle (1989-2002) had just been decommissioned and the new books had already been sent to schools. There existed a situation of “competing resources” as the teaching courseware never really looked like a supplementary resource. The fact that there were 160 lessons developed showed that there were enough lessons to outlast an entire teaching year! Many teachers then considered the textbook redundant. It is only after 3 years in use that many schools teachers stopped using teaching courseware. They believed it did not help with their teaching.

Many years from now the Teaching Courseware episode of our ELT history will be considered by researchers and practitioners as the case of the use of steroids to battle teaching and learning that went horribly wrong.

CONCLUSIONS

If all these measures resemble treatment through steroid use, are there long-term solutions in sight? I believe there are but people in ELT have been found to be generally myopic. They go through an education that has immersed them in knowledge on language education which clearly states that the best results from language learning are usually delayed, that responsive teaching brings the best results, that repetition and reinforcement makes learners acquire immunity from attrition and so forth, but the teacher is still bent on fighting this and concerns himself with short-term gains that come from examination practice.

The results of not deviating from the principles of good English Language Teaching are clear. Good language schools allow for learners to be exposed to English for up to 120 hours a month, which

is about 6 hours of English per day. In Malaysian schools learners are only exposed to 6 thirty five minute periods of English per week. In research conducted by Mukundan, Mahvelati and Nimehchisalem (2012) Form 4 students from a rural school in Kelantan all jumped one level, and performed significantly better than pre-test scores in all the skill areas tested (see table 4).

Table 4 Descriptive Statistics for pre and post-tests scores

	N	Mean	SD
Pre-test	30	49.5	4.04
Post-test	30	79.17	3.37

Also, in previous research where the subjects were jobless graduates from universities, intensive English programmes which lasted up to 6 months saw graduates moving up to five levels (Mukundan, 2003). These jobless graduates also went through 120 hours of English a month. Clearly the indications are that only sustained exposure to language learning brings forth positive results. Short cuts to learning on the other hand, can only bring forth frustration.

An even greater revelation is that sustainability is further reinforced when curricular interventions are combined with co-curricular ones. In my ELT community outreach programmes learners in MRSM Kuala Krai who were the worst performers in school examinations (attaining Ds and Es) and were on the one-month, 120 hour English programme and exposed to co-curricular English programmes (like drama and film projects) performed significantly better in SPM English than their counterparts who were not involved in the project.

In conclusion, I must emphasize once more that while steroids have a place in medical science due to the lack of alternatives the situation in ELT cannot cope with alternatives of that nature. ELT must get inspiration from the slow-cooking movement which is desperate in dislodging humanity from the perils of fast food where not only health but aesthetics suffer.

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BIOGRAPHY

Jayakaran Mukundan started work as a school teacher and served for 11 years (1979-1990). He then joined UPM (Universiti Putra Malaysia) and has 21 years experience as a language instructor, lecturer, Associate Professor and Professor. He recently won the Vice Chancellors Award for Teaching. He was previously winner of Anugerah Pengajar Putra (Top Teacher Award) in 2007 and has won the UPM Excellent Service Award 4 times. He has successfully graduated 9 PhD students (He has a total of 25 PhD students) and more than 30 Masters students. His publications include more than 58 journal articles, 23 chapters in books, 5 books and 25 edited books. He has made more than 129 conference presentations. He is Visiting Research Fellow at Leeds Metropolitan University, UK, Visiting Professor at Ho Chi Minh Open University, Vietnam, Visiting Professor at Management and Science University, and Director on the Extensive Reading Foundation Board. In addition, he was Visiting Research Fellow at Monash University, Clayton Campus, Melbourne, Australia (2008). He has won 5 International, 3 National and 29 UPM research awards. He founded 4 international conferences and 2 international symposiums and has been Chair of international conferences more than 10 times. He developed RETROTEXT-E (Versions 1 and 2.0) software for evaluating English language teaching textbooks and Wordlist Creator which won Gold medals at the British Invention Show, UK and IEANA (Germany). He is also inventor of the first on-line textbook evaluation checklist. He has copyrights on 4 software he has developed so far. As an Expert on the Ministry of Education and MARA Junior Science Colleges Advisory Panel, he constantly helps develop future curriculums for Malaysian schools. Jaya is one of the founding members of the Regional Creative Writing Group. He

himself writes and publishes stories and poems during sessions but more importantly helps train teachers who will be future writers. He has always been active in community service and has adopted more than 8 schools throughout the country. One of his biggest successes is in getting a 21 year old shop assistant (a UPSR dropout) to acquire TOEFL 550 proficiency (eligible for study in the United States!). Recently the worst performing students in a rural school in Kelantan (Faculty of Educational Studies, UPM, School Adoption Programme) did the programme proud by even scoring B+ in their SPM English.

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I am also grateful to my family for all the support I have received on this long journey.

LIST OF INAUGURAL LECTURES

1. Prof. Dr. Sulaiman M. Yassin
The Challenge to Communication Research in Extension
22 July 1989
2. Prof. Ir. Abang Abdullah Abang Ali
Indigenous Materials and Technology for Low Cost Housing
30 August 1990
3. Prof. Dr. Abdul Rahman Abdul Razak
Plant Parasitic Nematodes, Lesser Known Pests of Agricultural Crops
30 January 1993
4. Prof. Dr. Mohamed Suleiman
Numerical Solution of Ordinary Differential Equations: A Historical Perspective
11 December 1993
5. Prof. Dr. Mohd. Ariff Hussein
Changing Roles of Agricultural Economics
5 March 1994
6. Prof. Dr. Mohd. Ismail Ahmad
Marketing Management: Prospects and Challenges for Agriculture
6 April 1994
7. Prof. Dr. Mohamed Mahyuddin Mohd. Dahan
The Changing Demand for Livestock Products
20 April 1994
8. Prof. Dr. Ruth Kiew
Plant Taxonomy, Biodiversity and Conservation
11 May 1994
9. Prof. Ir. Dr. Mohd. Zohadie Bardaie
Engineering Technological Developments Propelling Agriculture into the 21st Century
28 May 1994
10. Prof. Dr. Shamsuddin Jusop
Rock, Mineral and Soil
18 June 1994

Steroid-like Prescriptions English Language Teaching Can Ill-afford

11. Prof. Dr. Abdul Salam Abdullah
Natural Toxicants Affecting Animal Health and Production
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