



**UNIVERSITI PUTRA MALAYSIA**

***KNOWLEDGE, ATTITUDE, SCHOOL SUPPORT, MOTIVATION AND  
USE OF CONTEXTUAL TEACHING AMONG SECONDARY SCHOOL  
AGRICULTURE TEACHERS IN MALAYSIA***

**SITI SHUHAI DAH BT ABDUL LATIR**

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OF CONTEXTUAL TEACHING AMONG SECONDARY SCHOOL  
AGRICULTURE TEACHERS IN MALAYSIA**

By

**SITI SHUHAI DAH BT ABDUL LATIR**

**Thesis Submitted to the School of Graduate Studies, Universiti Putra Malaysia,  
in Fulfilment of the Requirements for the Degree of Master of Science**

**October 2013**

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Abstract of this thesis presented to the Senate of Universiti Putra Malaysia in fulfilment of the requirement for the degree of Master of Science.

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**October 2013**

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**Faculty: Educational Studies**

Agriculture education is more than presenting a material as agriculture sector is becoming more technological, specialized and efficient. Agriculture science teachers face the slow adjustment of agricultural education programs and problem in choosing effective teaching and instructional strategies. Teachers' responsibility as producers, seekers, and disseminators of knowledge increases to add facts and routine in students' learning effectively. There is a need of agriculture science teacher to use different teaching approaches such as contextual teaching to improve previous teaching practice which only accentuates on students' knowledge transfer for examination preparation thus allows students to connect education with their life.

The purpose of this study is to identify the relationship between perceived knowledge, attitude, perceived school support, motivation and perceived use of contextual teaching among secondary school agriculture teachers. This study uses a quantitative approach with mail as a method for data collection. The instrument has been developed based from previous studies to measure perceived knowledge, attitude, perceived school support, motivation and perceived use of contextual teaching among secondary school agriculture teachers. The subjects of this study were drawn randomly to make a sample of 280 secondary school agriculture teachers in Malaysia.

Results have shown that secondary school agriculture teachers have moderate level of perceived knowledge and positive attitude towards contextual teaching. Secondary school agriculture teachers have high level of perceived school support and they have moderate level of motivation towards contextual teaching. Results also show that secondary school agriculture teachers have high level of perceived use of contextual teaching.

The result of this study shows there was a significant relationship between secondary school agriculture teachers' perceived knowledge, attitude, perceived school support, motivation, and perceived use of contextual teaching. Teachers' perceived use of

contextual teaching among secondary school agriculture teachers were high and their knowledge, attitude, perceived school support and motivation contribute mostly in their application of contextual teaching in their classroom practices. The continuous use of contextual teaching will benefit students and school generally because contextual teaching is an effective teaching approach that prepares student to enter workplace and becoming an expert human capital for the country.



Abstrak tesis yang dikemukakan kepada Senat Universiti Putra Malaysia sebagai memenuhi keperluan untuk ijazah Master Sains.

**PENGETAHUAN, SIKAP, SOKONGAN SEKOLAH, MOTIVASI DAN  
PENGUNAAN PENDEKATAN KONTEKSTUAL DI KALANGAN GURU  
SAINS PERTANIAN SEKOLAH MENEGAH DI MALAYSIA**

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Pendidikan pertanian merangkumi penyampaian pengetahuan berkaitan sektor pertanian yang berteknologi, khusus dan cekap. Menyedari kepentingan ini, pelarasan program pendidikan pertanian yang minimum dan penyelesaian masalah dalam memilih strategi pengajaran yang dihadapi guru sains pertanian perlu ditangani dengan berkesan. Tanggungjawab besar guru sebagai pengeluar, mencari dan menyalurkan pengetahuan penting bagi meningkatkan fakta dan pengalaman pelajar pembelajaran pelajar secara efektif. Oleh itu, guru sains pertanian digalakkan menggunakan pendekatan pengajaran yang berbeza seperti pengajaran kontekstual untuk memperbaiki amalan pengajaran sebelumnya yang hanya menumpukan kepada pengajaran pelajar untuk persediaan peperiksaan dan seterusnya membolehkan pelajar untuk mengaitkan pengetahuan dengan kehidupan mereka.

Justeru, tujuan kajian ini adalah untuk mengenal pasti hubungan antara tanggapan terhadap pengetahuan, sikap, tanggapan terhadap sokongan sekolah, motivasi, dan tanggapan terhadap penggunaan pengajaran kontekstual di kalangan guru sains pertanian di sekolah menengah. Kajian ini menggunakan pendekatan kuantitatif dengan pengumpulan data secara pos. Soal selidik telah dibangunkan berdasarkan kepada kajian sebelumnya untuk mengukur tanggapan terhadap pengetahuan, sikap, tanggapan terhadap sokongan sekolah, motivasi dan tanggapan terhadap penggunaan pengajaran kontekstual di kalangan guru sains pertanian di sekolah menengah. Subjek kajian ini telah diambil secara rawak dan seramai 280 guru sains pertanian sekolah menengah di Malaysia dipilih sebagai sampel.

Kajian ini menunjukkan bahawa guru sains pertanian di sekolah menengah mempunyai tahap tanggapan terhadap pengetahuan yang sederhana, sikap yang positif terhadap pengajaran kontekstual, tahap tanggapan terhadap sokongan sekolah yang tinggi dan tahap motivasi yang sederhana terhadap pengajaran kontekstual. Kajian ini juga menunjukkan bahawa guru sains pertanian di sekolah menengah mempunyai tanggapan terhadap penggunaan pengajaran kontekstual yang tinggi.

Selain itu, terdapat hubungan yang signifikan antara tanggapan terhadap pengetahuan, sikap, tanggapan terhadap sokongan sekolah, motivasi, dan tanggapan terhadap penggunaan pengajaran kontekstual. Tanggapan penggunaan pengajaran kontekstual dalam kalangan guru sains pertanian di sekolah menengah adalah tinggi, kerana pengetahuan, sikap, sokongan sekolah dan motivasi menyumbang kepada amalan bilik darjah mereka. Penggunaan pengajaran kontekstual yang berterusan akan memberi manfaat kepada pelajar dan sekolah secara amnya kerana pengajaran kontekstual merupakan pendekatan pengajaran yang berkesan bagi menyediakan pelajar untuk memasuki alam pekerjaan dan seterusnya menjadi modal insan yang pakar bagi negara.



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This thesis was submitted to the Senate of Universiti Putra Malaysia and has been accepted as fulfilment of the requirement for the degree of Master of Science. The members of the Supervisory Committee were as follows:

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## LIST OF ABBREVIATIONS

CORD	The Center for Occupational Research and Development
CTL	Contextual Teaching and Learning
M	Mean
SD	Standard Deviation
SMT	Sekolah Menengah Teknik (Technical School)
SMTV	Sekolah Menengah Teknik dan Vokasional (Technical and Vocational School)



# CHAPTER 1

## INTRODUCTION

### 1.0 Introduction

The Ninth Malaysia Plan which has been emphasized on improving Malaysia agriculture sector by enhancing value added in manufacturing, service and agriculture itself. In addition, to improve agriculture sector, plans were made to increase the level of technical and vocational skills under the “National Dual-Training System” (The Ninth Malaysia Plan, 2006).

Mission to accomplish vision 2020 continues with The Tenth Malaysia Plan which has been carried out since 2011 until 2015. Apart from evaluation the achievement of the Ninth Malaysia Plan, this new plan has also emphasized on some plans to build up and maintain first-world talent based. One of the ways is by improving the education system and considerably raising student outcomes as this will also raise the skills of Malaysians and eventually increase the number of employability (The Tenth Malaysia Plan, 2010).

Contextual teaching supports the philosophy of sustainable agriculture in high school agriculture education. Teachers can address economic, social, and environmental issues and their acceptability in a multidisciplinary manner, using problem solving and integrate agriculture education curriculum with new technologies and practices. Secondary agriculture teachers require discovering knowledge of sustainable agriculture, integrating real agriculture practice to agriculture education content, chose appropriate application with students’ readiness and teaching using suitable contextual teaching approaches (Williams & Dollisso, 1998).

Teachers are people who instruct to provide the teaching learning process. Teachers are the foundation of the educational system. Joyce & Showers (2003) defined teaching as a process of transferring knowledge, skills and attitude in order to bring about desirable change in learners. In addition, the primary goal of teaching is to ensure that meaningful learning occurs (Kiadese, 2011).

Agriculture teachers need to play a new role in the classroom and support students’ interaction with their environment to develop learning and understanding (Arnold, Warner, & Osborne, 2006). For example, secondary agriculture teachers can incorporate climate change phenomenon such as natural disaster, drought, flood, pest attack, plant disease, and changing the time of crop cycle which are the issues impacting Malaysian agriculture and its productivity as well as profitability (Alam, Siwar, Murad, & Toriman, 2011). As a result, students have better understanding of agriculture and boost their interest towards agriculture.

## **1.1 Background of Study**

Agriculture teachers need to determine the factors that influence their use of contextual teaching such as their knowledge, attitude, perceived school support and motivation. As stated by Turner-Bisset (1999) common pedagogical knowledge is knowledge about teaching that usually retrieved from practice, while pedagogical content knowledge is the total of thinking and decisions based on kinds of knowledge which can be detected in senior teachers while less knowledge for junior teachers. Teachers' existing knowledge and the school involvement influenced new knowledge of teacher roles, student roles, disciplinary structures and pedagogy (Major & Palmer, 2006).

### **1.1.1 Contextual Teaching**

Contextual teaching use real context, integrate agriculture industries, and teachers are allow to tackle real life problems in problem-based learning using agriculture issues in Malaysia. Arshad and Mustapha (1986) and a report made by Economic and Social Commission for Asia and the Pacific (ESCAP, 2006) had brought out the potential significant issues; the minds of the public and agriculture industries that can be used by teachers in classroom are land development, defect in agricultural infrastructure, the uneconomic size of holdings and poor farming methods, development of socio economic institutions, employment in agriculture, mechanization of farm operations, conversion of new land for planting, track and fiscal measures and challenge of natural problems. Williams (2000) found that teachers who integrating suitable technologies into school curriculum allow students to build up the knowledge that will help them to understand the prospective of sustainable agriculture which influence environmental, social and economic dimension of agriculture sector.

Contextual teaching is philosophy of education and also continuum of pedagogical strategies (Smith, 2003). As a philosophy of education it assumes that an educator's role is to help students discover meaning in their education by making connections with what they have learnt in the classroom and applying the knowledge in actual world context. The intention of using contextual teaching is to help students to understand the importance of what they learn in school.

Contextual teaching is not a new idea and it has emergence of pragmatism theory (James, 1907) and constructivism theory by John Dewey (1916). The popular term used for contextual teaching was experiential learning in early 1970's and later was called applied learning in the late 1970's and 1980's (Whitcher, 2005). Overtom (2000) in her research had stated that the result of effective learning is when skilful students were able to apply what they have learnt "in context", and placing learning objectives within actual environment rather than insisting students learn in the abstract.

Contextual teaching is also known as hands-on learning, problem solving, inquiry-centred learning, authentic learning and constructivism. Students gain benefit from contextual teaching because by learning to apply the knowledge, they will see the implications of the knowledge, and they will see the knowledge is organized for appropriate use in various contexts and the learning environment fosters students' invention and creativity (Collins, Brown, & Holum, 1991). The main mission of the teacher in contextual teaching is to widen student's perceptions so that meaning of knowledge becomes visible and the purpose of learning understandable. This mission is fundamental so that students will be able to connect knowing with doing (Ben, 2003; Moreno, 2005).

Agricultural education must have a well prepared teaching force if it is to thrive in the future (Stewart, 2003). Agricultural education teachers are required to bring in and exhibit new technologies to their students to better prepare them to enter the work force as agricultural technology advances. To match the industries' need, agricultural education teachers must continue to update their knowledge of technology and pedagogy. Pedagogical approaches aim to achieve educational goals and objectives. Teachers who employ single instructional approach may not gain benefit from other strategies and teachers will not be able to teach if they do not have the students' attention (Lynch & Harnish, 2003).

Instructional approach such as contextual teaching allows teachers to convey academic content associated with values, at the same time constructing integrative knowledge, analytic and problem solving skills, and social skills among students (Medrich, Calderon, & Hoachlander, 2003). However, teachers need to overcome the obstacles faced by students who are not familiar with contextual teaching method which are ambiguity, open-endedness, and self directed. Teachers also found the absence of standards for determining a precise contextual teaching practice to be used. Most teachers utilize a diversity of instructional strategies, including properties of contextual teaching, it is hard to find classrooms using contextual teaching strategies, because majority of teachers are not formally trained in these strategies, there is a wide variety of competence in confirmation and problem in assessing instructional quality rise (Medrich, Calderon, & Hoachlander, 2003).

Harwood, Hansen and Lotter (2006) stated that teachers' choice of instructional strategies depending on their views of what constitutes effective teaching and learning. Therefore, to meet those demands, teachers need continuous in-service training so that they are able to increase their knowledge and develop their pedagogical skills so they are prepared in serving their students and the community (Beake, Duncan, & Ricketts, 2007).

Teaching approach used by teachers is very important to the success of the teaching process (Olowa, 2009). Despite the extensive research about good practice teaching, it is still indistinct about what constitutes good practice within definite context (Arenas, 2009). On the other hand, effective teachers implement appropriate teaching strategies, use relevant learning and instructional technology, recognize students' characteristics, and use them in the teaching process (Walker & Shepard, 2011). Vasconcelos, (2012) supported that teacher should choose their teaching

methodologies that are suitable for teaching in learning specific knowledge. Good teaching practice and teachers who improve practices in classroom is a part of educational policy. This study investigates teachers' characteristics such as their perceived knowledge, attitude, perceived school support, motivation and perceived use of contextual teaching as it is one of the possible approach for strengthening instructional practice particularly in teaching agriculture science subjects at secondary schools. The next topic will discuss about agriculture science education.

### **1.1.2 Agriculture Science Education**

Vocational elements and aims embraced endless values and cultural perspective by matching the needs and responding to the social, economic and industrial requirement nowadays. Vocational posts which require more highly educated applicants are increasing in number (Binkley & Byers, 1984). One of the education service's responsibilities is to produce students with the basic skills required by industry and commerce can develop however, studies show that schools still cannot train workers (Fine, 2005).

Researcher found that agriculture is incredibly significant to be taught to few students only (Myers, Breja, & Dyer, 2004) and few years back researcher found that some of agriculture programs have been stopped, this was due to the failure of the program leader to persuade students to enrol in agriculture courses (DaVergne, Larke, Elbert, & Jones, 2011).

Education should exceed beyond content and education should develop an attitude for lifelong learning among learners as well as to prepare learners to be broadly educated as contributors in the society. John Dewey purported in 1977, education is a context or a basic for learning especially through experience which has been the philosophical foundation for agricultural education programs (Knobloch, 2003).

Public school system is in need for agriculture teacher with expertise in group and individualized instruction. Being a teacher of agriculture in the public school is challenging because teachers are responsible for much more than classroom and laboratory instruction as the primary task of any teacher is helping students learnt (Newcomb, McCracken, Roberts, & Whittington, 2004).

Agriculture subject has been presented with meaningless examples in classroom which contradict to current policy that emphasizes the ideas of sustainable development. Researcher found that agriculture was presented as an environmental problem resulting from farming activities which causes water pollution through the use of fertilizers and pesticides, apart from the chain poisoning that causes death of wildlife (Tali, 2008).

Vocational education consists of integrated approach that combines vocational skills and academic content-rich environment as a purpose of developing transferable life skills (Roberts & Ball, 2009). Previously, education research suggested a new theory

for education with the purpose to enlighten habits of mind. The paradigm requires learner to have five habits of mind. The first habit is disciplinary mind which requires student to think within a particular discipline condition. Second is the synthesizing mind, the ability to make sense of variety of information from different sources. Third is the creative mind of inventive ability. Fourth is the respectful mind, the ability to comprehend different groups of people on their own terms. Fifth is the ethical mind, the ability to understand self and work within the perspective of a greater societal need (Davis & Gardner, 2006).

Agriculture subject can provide a rich context for students to learn most subjects taught in the public school system. Agriculture as a context allows teachers to integrate academic concepts which inherent in students' natural surroundings and give students the capability to see science and mathematics in a realistic setting. Agriculture is a dynamic field which can be easily used as a context for teaching any core subjects. Therefore, a teacher must also be comfortable applying the concepts to their curriculum (Andersen, 2011).

## **1.2 Statement of the Problems**

Current situation in Malaysia shows that majority of secondary school agriculture students did not further their education despite the fact that they had performed well in agricultural science subject for example enrolment for the 'Bacelor Pendidikan (Sains Pertanian)' in Universiti Putra Malaysia are mainly from matriculation and STPM holder without agricultural education background. This scenario may be due to the low overall academic achievement as well as the lack of students' interest towards agriculture because of the minimal authentic activities that relate the content knowledge in agriculture. Previous studies by (Shields, 1997; Smith, 2006) showed that by using contextual teaching allow teachers to connect students' knowledge with meaningful practices. Even though contextual teaching has been exposed to agriculture teachers in Malaysia, no study has been done to look at their knowledge, attitude, and motivation towards contextual teaching.

Secondary school agriculture teachers are required to use various contextual teaching strategies as drawn in 'Huraian Sukatan Pelajaran Sains Pertanian' (2000) to teach certain topics in agriculture. Even though secondary school agriculture teachers have previous knowledge related to contextual teaching as they have been expose during training at the universities or higher institution, there is still no data regarding secondary school agriculture teachers' knowledge towards contextual teaching. It is important to seek teachers' knowledge because teachers' knowledge is related to teachers' ability in controlling teaching content and practice (Garcia, 2003; Avidov-Ungar & Eshet-Alkalai, 2011). Masiron (2008) found that when teachers' perceived knowledge about biotechnology, they have a better understanding towards biotechnology.

Apart from knowledge, teachers' attitude is another important factor related to teachers' use of innovation. Teachers' positive attitude allows them to transmit

knowledge at best (Barros & Elia, 1998) and influence teachers' decision to apply certain practice (Zhou & Gao, 2010; Anderson & Williams, 2012). Masiron (2008) stated that teachers' with positive attitude have better understanding towards use of biotechnology in agriculture. Therefore, a study about secondary schools agriculture teachers' attitude towards contextual teaching is required as teachers' attitude will relate to teachers' future understanding and use of an innovation.

School supports which include conducive environment, financial support, and availability of equipment can enhance implementation of innovation such as contextual teaching (Mohamad Yusuf, 2006). Lam, Cheng and Choy (2010) stated that when teachers' received high school support, they tend to use an innovation such as project based learning in their teaching. However, it is still unclear whether secondary school agriculture teachers in Malaysia have been received support from schools to conduct contextual teaching.

Therefore, there is a need to conduct a study to seek secondary school agriculture teachers' perceived knowledge, attitude, perceived schools support, motivation and perceived use of contextual teaching.

### **1.3 Objectives of the Study**

The general objective of this study is to determine the relationship between teachers' perceived knowledge, attitude, perceived school support, motivation and perceived use of contextual teaching among secondary school agriculture teachers in Malaysia. The specific objectives of the study are:

1. To determine secondary school agriculture teachers' perceived knowledge towards contextual teaching.
2. To determine secondary school agriculture teachers' attitude, motivation and perceived school support toward contextual teaching.
3. To determine secondary school agriculture teachers' perceived use of contextual teaching.
4. To describe the relationship between secondary school agriculture teachers' perceived knowledge, attitude, perceived school support, motivation and perceived use of contextual teaching.

### **1.4 Research Questions**

The research questions for this study are as follow:

1. What is secondary school agriculture teachers' perceived knowledge towards contextual teaching?
2. What is secondary school agriculture teachers' attitude toward contextual teaching?

3. What is secondary school agriculture teachers' perceived school support toward contextual teaching?
4. What is secondary school agriculture teachers' motivation towards contextual teaching?
5. What is secondary school agriculture teachers' perceived use of contextual teaching?
6. What is the relationship between secondary school agriculture teachers' perceived knowledge and perceived use of contextual teaching?
7. What is the relationship between secondary school agriculture teachers' attitude and perceived use of contextual teaching?
8. What is the relationship between secondary school agriculture teachers' perceived school support and perceived use of contextual teaching approaches?
9. What is the relationship between secondary school agriculture teachers' motivation and perceived use of contextual teaching approaches?

### **1.5 Significance of Study**

Research on teachers' characteristics towards the use of contextual teaching is important for several reasons. Firstly, the findings from this study could have an impact on teachers, students and industry in Malaysia. Contextual teaching methods help students master the field of agricultural science education effectively. The concrete knowledge about agriculture education can be used by students while undergoing tertiary education before they continues to workplace (Phipps, Osborne, Dyer, & Ball, 2003).

Effective teaching enhances students' interest in agriculture and therefore increases the number of students' enrolment in agricultural science, especially for form 4 and form 5 students with science background.

Contextual teaching cultivates and nurtures the habits of mind of students as they think creatively through various learning activities (Gardner, 2004). Apart from that, teachers are able to maintain the developing philosophy of holistic education where development and total growth of students is a priority (Forbes & Martin, 2004). In addition, contextual teaching increases agriculture teachers' awareness towards variety of teaching approaches which are effective for agriculture science programs in school.

Effective agricultural education programs will hold tremendous potential for reaching a diverse student population with the agricultural education message. Many agriculture courses information is presented in several different forms providing distinct opportunities for students who learn through the multiple intelligences avenues for academic success (Whitcher, 2005).

Students had higher rates of retention in knowledge from agriculture courses after being taught with the problem solving method (Flowers & Osborne, 1988). Life



roles, or human commonalities roles, are addressed in contextual teaching for lifelong learners. These include those roles in life that all humans undertake as a result of becoming a member of society that they will perform throughout their lives as lifelong learner, citizen, consumer, and producer, individual, family member, and aesthetic or leisure of member.

Learning through real-world contexts adds to the basic knowledge of students, provides for a fresher appeal to students' inquisitive minds and simulates interests in their surroundings. This is the basis of educating for freedom, a freedom to enter with others into social and civic association. Contextual teaching instructional material provides lessons, laboratory exercises, and creative ideas for teachers to use with their students to address science standards through hands-on project and real-world scenarios, addressing "why do I have to learn this?" (Whitcher, 1995).

Major obstacles in recruiting more students to enrol into agriculture programs will decrease by improving scheduling difficulties, increasing support of guidance counsellor, reducing competition from other programs and activities, improving the image of agriculture, making direct access to students, giving full support from administrative, and improving teachers' recruit (Dyer & Breja, 2003). An understanding of teachers' attitude towards teaching approaches is important as a guide for further in-service development programmes.

Contextual teaching is suitable for agriculture subject or for some topics within those curricula, thus there is a need for teachers to have an understanding of instructional practice and curriculum delivery in order to gain benefit from contextual teaching methods. Therefore, this study is hoped to raise the credibility use of contextual teaching among secondary agriculture teachers, students, schools, policymakers and society (Medrich, Calderon, & Hoachlander, 2003).

## **1.6 Scope of Study**

The scope of this study is investigating teachers' perceived knowledge, attitude, perceived school support, motivation, and perceived use of contextual teaching in Malaysia. Teachers' teaching preference is important especially to teach agriculture science that require more application activities to enhance understanding towards learning and increase learner's interest, therefore the scope of this present study necessarily covers an exploration of various teachers characteristics that related to perceived use contextual teaching.

There are four independent variables to study, namely, perceived knowledge, attitude, perceived school support and motivation towards contextual teaching. These variables related to secondary school agriculture teachers' perceived use of contextual teaching in classroom.

The perceived knowledge towards contextual teaching is measured by determining secondary schools agriculture teachers' level of perceived knowledge

towards contextual teaching. The measure for the attitude is to identify the positive or negative attitude of secondary school agriculture teachers towards contextual teaching. Furthermore, the measure for the perceived school support is to determine secondary school agriculture teachers' perception about their school support towards contextual teaching. The measurement for the motivation is to identify the level of motivation of secondary school agriculture teachers towards contextual teaching. Lastly, it is to measure perceived use of contextual teaching by identifying the level of perceived use of contextual teaching among secondary school agriculture teachers.

In addition, the questionnaire used in this study was adapted and adopted from previous studies. In the present study, the researcher has modified items in line with the research objective. The instrument was validated by three experts in Technical and Vocational from public universities in Malaysia to ensure for high validity of questionnaire. Pilot test was conducted by the researcher to ensure the questionnaire had a high reliability. Information from the present research has implication for all secondary school agriculture teachers in Malaysia.

## **1.7 Limitations of the Study**

This study was carried out among secondary schools agriculture teachers at secondary schools and technical schools in Malaysia. The relevance of using secondary school teachers is because they teach agriculture subjects for form 4 and form 5 students.

Contextual teaching strategy in this study holds across the entire characteristics of contextual teaching strategies such as problem based learning, cooperative learning, project based learning, interdisciplinary teaching, inquiry based learning, workshop or laboratory teaching, experiential learning, brain-based teaching, and discovery learning which were rooted from constructivism, behaviourism and human memory theory.

There is no sole concrete concept of contextual teaching in previous literatures; this study uses the term contextual teaching to bring the general ideas of various types of contextual teaching approaches that connects students' learning with the actual and meaningful knowledge, examples and practices.

## **1.8 Definitions of Terms**

### **1.8.1 Contextual Teaching**

Teaching method that making the connections between what students are trying to learn and some aspects of real world experience or a school experience that provides meaning, relevance, real life experience, and connections (Shields, 1998). Students

are able to utilize their academic knowledge and skills in multiple in-and out-of-school contexts to solve replicated or authentic-world problems, both individually and with groups (Smith, 2003).

### **1.8.2 Perceived Use of Contextual Teaching**

Making connections between what a student is trying to learn and some aspect of a real world experience (Collins, Brown, & Holum, 1991; Prawat, 1992; Shields, 1998; Bouillion & Gomez, 2001; Eick & Reed, 2002). In this study refers to secondary school agriculture teachers' perceived use of contextual teaching regarding to the focus of curriculum, teachers' role, classroom context, students role, and the scope and sequence.

### **1.8.3 Agriculture Science Teacher**

Teachers work for ministry of education who teach agriculture science subject in secondary school (Ahmad R. , 1998). In this study, agriculture science teacher refers to teachers who teach agriculture science subject in both regular secondary school and technical school.

### **1.8.4 Teacher Perceived Knowledge**

Teachers' understand about their ways of teaching or technique to transfer the knowledge that emphasize on student-centred learning with meaningful activities (Chai, 2010). In this study, teachers' perceived knowledge refers to what extent secondary school agriculture teachers' perceived knowledge based on the construct of contextual teaching definition, strategies, and characteristics.

### **1.8.5 Teacher Attitude**

Individual's focal predisposition to react favourably or unfavourably to an event and it can be either positive or negative. Social psychologists study had made a differentiation between three components of the responses, the cognitive component, which is the knowledge about an event, the affective component or the feelings towards the event and the behavioural component, which is the action taken towards the event (Barros & Elia, 1998). In this study, secondary school agriculture teachers' attitude refers to their three attitudes construct, affective, behaviour and cognition attitude towards contextual teaching.

### **1.8.6 Teacher Perceived School Support**

School support is related to competence support, autonomy support, and collegial support. Competence support is the requirement to engage in maximum challenges and experience mastery in one's actions. Autonomy support is the need to experience oneself as the initiator of action and to self-regulate one's own behaviours. Meanwhile, collegial support is necessitation to get attachments and experience feelings of security, belongingness, and intimacy with others (Lam, Cheng, & Choy, 2010). In this study, teachers perceived school support refers to secondary school agriculture teachers' perception of school support towards using contextual teaching.

### **1.8.7 Teacher Motivation**

Motivation can be defined as something that energizes and shape behaviours. Intrinsic motivation is what teachers themselves bring into the teaching environment such as teachers' internal attributes. Extrinsic motivation originates in the teaching and learning environment when teachers are offered the right incentives for doing certain things (Moore, 2009). In this study, secondary school agriculture teachers' motivation refers to their motivation towards contextual teaching based on teachers' intrinsic and extrinsic construct.

### **Summary**

This study was conducted to see the relationship between teachers' characteristics such as teachers' perceived knowledge, attitude, perceived school support, motivation and perceived use of contextual teaching among secondary school agriculture teachers in Malaysia. This chapter shows the background of study, statement of the problems, objectives of the study, research questions, significant of study, scope of study, limitation of the study and the definitions that have been used in the study. In-depth explanation about contextual teaching and teachers' characteristics regarding this study will be discussed in chapter 2.

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