

FACTORS AFFECTING SECONDARY SCHOOL TEACHERS' WILLINGNESS TO DELIVER SEXUAL REPRODUCTIVE HEALTH (SRH) EDUCATION IN MALAYSIA

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TEACHERS' WILLINGNESS TO DELIVER SRH

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TEACHERS' WILLINGNESS TO DELIVER SRH

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TEACHERS' WILLINGNESS TO DELIVER SRH

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Abstract

Sexual Reproductive Health (SRH) education has long been integrated into educational system

yet it seemed lack of effectiveness as reflected in the rising rate of social issues such as teenage

pregnancies. Past studies put more emphasis on students' sexual knowledge and behavior while

study reveal on teaching perspective remain scarce. This study investigated perceived

knowledge, comfort to teach, and self-efficacy on secondary school teacher's willingness to

deliver SRH education in Malaysia. Quantitatively study with cross-sectional design using

multistage cluster sampling method was used to recruit respondents for this study. A total of 252

secondary school teachers (Mage: 39.37; SDage: 7.83; 78.6% female; 82.5% Malay; 11.9%

Chinese; 4.4% Indian; and 1.2% other ethnicities) whom taught Biology, Science, and *PJK* from

central regions (i.e., Perak, Selangor, and Kuala Lumpur) of Peninsular Malaysia participated in

this study. The result indicated that there was significant positive relationship between perceived

knowledge, comfort to teach, self-efficacy, and willingness to teach. Comfort to teach was found

to be the only predictor to explain willingness to teach. However, there was no significant

differences between male and female in their willingness to teach. Hence, comprehensive

teachers' training aiming in advancing teachers' professional development in teaching SRH

education should emphasize in providing standardize knowledge transfers skills, enhancing self-

efficacy, and comfort to teach which to equip the teachers as an effective agent of change in SRH

among adolescents in Malaysia.

Keywords: SRH, comfort, knowledge, self-efficacy, willingness

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DECLARATION

We hereby declare that the material contained in this paper is the end result of our own work and that due acknowledgement has been given in the bibliography and references to ALL sources be they printed, electronic or personal.

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List of Abbreviations

BM..... Bahasa Malaysia

KPWKN...... Kememterian Pembangunan Wanita, Keluarga dan Masyarakat

LPPKN..... Lembaga Pembangunan Penduduk dan Keluarga Negara

MoE..... Ministry of Education Malaysia

NPFDB...... National Population and Family Development Board Malaysia

PEERS..... Pendidikan Reproduktif dan Sosial

PEKERTI..... Policy and Action Plan for National Reproductive Health Education and

Social Education

PJK..... Pendidikan Kesihatan dan Jasmani

PKRS..... Pendidikan Kesihatan Reproduktif dan Sosial

PLKN..... Program Khidmat Negara

UNESCO...... United Nations Educational, Scientific and Cultural Organization

SMK..... Sekolah Menengah Kebangssan

SRH..... Sexual Reproductive Health

WHO...... World Health Organisation

Chapter I

Introduction

Background of Study

Sexual health is a state of physical, mental and social well-being in relation to sexuality; it is not only the absence of disease, dysfunction, or infirmity but it requires positive and respectful approach to sexuality and sexual relationship (World Health Organisation, 2006). The term sexual health or sexual education was not widely used in Malaysia as it is being perceived as a negative term among Malaysian (Mohamad & Nurul, 2016). In fact, sexual reproductive health (SRH) is commonly used when talking about this subject.

Based on the meta-analysis conducted by Salmi et al. (2017), SRH education was integrated into school systems by Ministry of Education Malaysia (MoE) since 1989 for secondary school and 1994 for primary school. Moreover, plenty of programs are also available to educate students in the sexual reproductive health such as Policy and Action Plan for National Reproductive Health Education and Social Education (PEKERTI) and "Pendidikan Reproduktif" dan Sosial" (PEERS). PEERS is being taught under the subject called "Pendidikan Kesihatan" dan Jasmani (PJK)" which is the Health and Physical Education for both primary (MoE, 2014) and secondary (MoE, 2015) school students in Malaysia. There are three elements in PJK which are PEERS, balance diet, and first aid. The allocation of time to teach these three elements are 75%, 15% and 10% respectively.

The objectives of PEERS are to build positive perspective towards sexual reproductive health on individual, family and community, to prepare sufficient information so that students are concern on sexual reproductive health, to train students making wise decision and be

responsible towards sexual reproductive health by now and in the coming future. There are seven elements in PEERS which are health and reproduction, substance abuse, mental and emotional management, family, relationship, safety, and prevention of disease (MoE, 2014).

PEKERTI earlier was known as Reproductive, Social and Health Education or Pendidikan Kesihatan Reproduktif dan Sosial (PKRS). However, it was known as PEKERTI since 2012. After the approval of Parliament Malaysia in 2009 for PEKERTI, National Population and Family Development Board Malaysia (NPFDB) or *Lembaga Pembangunan Penduduk dan Keluarga Negara* (LPPKN) through Ministry of Women, Family and Community Development or *Kementerian Pembangunan Wanita, Keluarga dan Masyarakat (KPWKM)* implemented this program at the kafe@TEEN Adolescent Centres, National Service or *Program Khidmat Latihan Negara* (PLKN), and schools. The four main objectives of PEKERTI are to raise awareness of community, to develop skills, to increase research and development, to improve effectiveness of reproductive health and social education. Despite the two main programs mentioned, the PEERS and PEKERTI, other education materials and services are also available which focus on SRH such as booklet entitled "*Rahsia Remaja*", 3R, "Demi Cinta", RHAM Module, Live Journey, I'm in Control Modules (Salmi et al., 2017).

Moreover, looking into the programs and subjects integrated to mainstream schools, it reflected that efforts have been made by government to improve the SRH from time to time. However, the fact was that the statistics of the teenage sexual engagement and lacking of knowledge to have a safe sex remained a worried issue. For instance, survey by Institute for Public Health, National Institutes of Health, Ministry of Health Malaysia (2018) showed that 7.3% of adolescents among 13 to 17 years old had already have experience of sex. Among those who had sex, only 12% use condom while the other 10% used other forms of contraception. A

cross sectional study also revealed that one of the risk factors for teenage pregnancy was lack of SRH knowledge (Mohamad, Adibah, & Haliza, 2015). This situation may need further investigation on the process of implementation of SRH education in Malaysia.

United Nations Educational, Scientific and Cultural Organization (UNESCO) (2018) stated that an effective SRH program is highly associated with the skills, preparedness and comfort of the teachers in supportive school setting. While school based SRH education for adolescents were widely recognized, little is known on the kind of involvement by teachers and their perception of handling students on SRH concerns. Self- efficacy is the predictors of intention, choice and perseverance to complete a task (Weber, Weber, Sleeper, & Schneider, 2004). For this reason, it is important to look into teacher's perception on their perceived knowledge, feeling of comfortable and self-efficacy which might contribute to their willingness to teach SRH.

Statement of the Problem

Given the assumption that the syllabus of SRH is well-established, but the program seems ineffective in resolving the sexually related problems among adolescents in the context. The SRH education was integrated into school systems since 1989. However, there are still widespread of social issues such as teenage pregnancy, act of baby dumping, Sexually Transmitted Diseases (STD). For instance, there were 19,000 births to teenage mothers recorded each year from year 2009 to 2011 which is equivalent to around 60 cases daily (Mohamad et al., 2015). Joibi (2018) reported that 4,992 infants born to young mothers age below 18 years old and 120 cases of baby dumping in 2017. Study on 4500 adolescents in Negeri Sembilan by Lee, Chen, Lee, and Kaur (2006) also highlighted that there were 5.4% of them had sexual engagement. Ministry of Women, Family and Community Development through NPFDB

through pointed out that intervention and prevention programs were carried out to address the issues of teenage pregnancy and baby dumping. The issues mentioned are still rising and actual figure is expected to be more due to the unreported cases. Hence, this posted a question that prevention programs (e.g., SRH education) and other intervention programs were being held but its effectiveness seemed to be reflected on the widespread of social issue. Thus, this study aims to investigate the possible problems along the implementation process of SRH in the educational setting whereby teacher can be one of the important agents of change that determine the efficiency of knowledge transfer.

Moreover, there were limited research looking from teachers' perspective in delivery sexual reproductive health knowledge. For instance, research have been done among Canada teachers on the factors affecting their willingness to deliver sexual health education (Cohen, Byers & Sears, 2012). Study by Ihwani et al. (2016) focused on teachers' readiness in teaching sexual reproductive health elements based on four aspects namely personality, knowledge, skills and attitude. However, the target sample were only focusing on Islamic education teachers. Which mean, it provided limited generalization to the multi-ethics teachers in Malaysia. Hence, in order to provide greater generalization in this multi-ethnic society, this study focused on the all secondary school teachers regardless of ethics so that result can provide broader point of view across different ethics in Malaysia.

Past studies were focusing on the SRH knowledge of the students and the perception towards SRH (Mutalip & Mohamed, 2012; Rahman et al., 2011) but limited studies were looking into the effectiveness in term of implementation of the SRH programs. The statistics of sexual involvement is in rising (Public Health, National Institutes of Health, Ministry of Health Malaysia, 2018) which posted a question on the effectiveness of the SRH programs such as the

teaching or delivering process by teachers. A successful SRH education was also highly dependent on effective teaching by educators with sufficient training and support (United Nations Educational, Scientific and Cultural Organization, 2018). Hence, it is important to investigating the teachers' perceived knowledge which might contribute to their willingness to teach.

Moreover, a qualitative study (Khalaf, Low, Merghati-Khoei, Ghorbani, 2014, p. 6) pointed out that "they (teachers) are only able to teach in sciences or in what we call living skills, life skills, but the real rash text of the sexuality education is not taught." This study also highlighted that teachers were conservative and shy to teach this subject and someone outside of the school is deemed more suitable such as nurses. Another study (Talib, Mamat, Ibrahim, & Mohamad, 2012) also pointed out that sex education was taught casually as in the vague information and casual way of delivering SRH education specifically in biology, islamic studies, and physical education classes. This posted a question on the feeling of comfortable is also playing a role when delivering SRH. The feeling of comfortable is also one of the focus of the study in its association to the willingness to deliver SRH education.

Furthermore, teachers should have confident, commitment and resourceful as a primary criteria for an effective measure in delivering SRH education (United Nations Educational, Scientific and Cultural Organization, 2018). In light of this, teacher's self-efficacy was important in decision of classroom management, course planning, and teaching and inspire students to learn (Erdem & Demirel, 2007). For this reason, teacher's self-efficacy is included in this study as is might also contribute to the teacher's willingness to deliver SRH.

In short, in order to filled up the knowledge gap and providing more generalization across different ethnics in Malaysia, this study examine the relationship between perceived knowledge, comfortable, and self-efficacy of secondary school teachers to deliver SRH education.

Objectives

General objectives. This research aims to investigate the relationship between perceived knowledge, comfort to teach, self-efficacy and willingness to deliver SRH education among secondary school teachers in Malaysia.

Specific objectives.

- To determine the level of perceived knowledge, comfort to teach, self-efficacy, and willingness to teach SRH education among secondary school teachers in Malaysia.
- To investigate whether perceived knowledge, comfort to teach and self-efficacy
 each has a relationship with willingness to teach SRH education among secondary
 school teachers in Malaysia.
- 3. To determine whether knowledge, comfort to teach, self-efficacy predict the secondary school teachers' willingness to teach SRH education in Malaysia.
- 4. To investigate gender difference in the willingness to deliver SRH education among secondary school teachers in Malaysia.

Research Questions

1. What is the level of perceived knowledge, comfort to teach, self-efficacy, and willingness to teach SRH education among secondary school teachers in Malaysia?

- 2. Do perceived knowledge, comfort to teach and self-efficacy each has a relationship with willingness to teach SRH education among secondary school teachers in Malaysia?
- 3. Do knowledge, comfort to teach, self-efficacy predict the willingness to teach SRH education among secondary school teachers in Malaysia?
- 4. Is there any gender difference in the willingness to deliver SRH education among secondary school teachers in Malaysia?

Hypotheses

Research Question 2: Do perceived knowledge, comfort to teach and self-efficacy each has a relationship with willingness to teach SRH education among secondary school teachers in Malaysia?

H₁: There is a positive relationship between perceived knowledge and willingness to teach SRH education among secondary school teachers in Malaysia.

H₂: There is a positive relationship between comfort to teach and willingness to teach SRH education among secondary school teachers in Malaysia.

H₃: There is a positive relationship between self-efficacy and willingness to teach SRH education among secondary school teachers in Malaysia.

Research Question 4: To investigate gender difference in delivering sexual reproductive health.

H₄: Male teachers are more willing to teach SRH education.

Significance of Study

Most of the past studies tend to focus more on students SRH knowledge (Mutalip & Mohamed, 2012; Rahman et al., 2011), but limited to less emphasize on the role of teachers in delivering the knowledge. Hence, this study aims to provide statistical evidence to fill in the knowledge gap especially in Malaysia context by in cooperating the facilitate factors that influence on teachers' willingness to teach SRH education.

This study may provide awareness to teachers who respond to this survey in revealing their point of view on this matter. The results of the study may serve as a reflection of their current process of transferring SRH education. Teachers can reflect on their current perceived knowledge, comfort, and self-efficacy which together play a role in in their willingness to teach SRH. Hence, all these variables may enable them to reconsider their important role and responsibilities to deliver SRH education in a clear and comprehensive manner so that students are equipped with appropriate SRH knowledge.

The results of the study may serve as an important reference for MOE to reconsider the implementation of this SRH program. Efforts such as providing workshop or training to teachers in order to equip them with the latest update on SRH and improve their skills in the process of delivering of SRH knowledge can be planned after considering the results of the study. The results of the study also able to provide useful information to individual, practitioner, NGO and authorities to draw follow up and more effective measures to tackle the arising issues of teenage sexual-related problems.

With the assumption that the syllabus of SRH is well-established, this study plays a role to reflect on the willingness of teachers to teach this subject despite of the training they

undergone and the knowledge they have. Teachers may limit themselves to deliver SRH knowledge due to the conservative thinking and they were shy to talk about SRH openly (Khalaf et al., 2014).

Moreover, as mentioned in the problem statement, there were limited studies looking from teachers' perspective in delivering SRH education. This is important as most of the studies (Mutalip & Mohamed, 2012; Rahman et al., 2011) were looking into students SRH knowledge without paying much attention on teachers which play a main role in delivering the knowledge. Hence, this study aims to fill in the knowledge gap whereby past researchers rarely view the issue of sexuality from teacher's perspective.

Furthermore, though the SRH subject has been integrated into school system (Salmi et al., 2017) by MOE since 1989, there was still wide spread of social issues such as teenage pregnancy, sexual transmitted disease, and abortion. These issues lead us to think about why the subject has been taught for years but the rate of these issues is still on an alarming rate. Therefore, this study may serve as a reference for MOE to reconsider in providing workshop or training to teachers so that they are equip with the latest update on SRH and improve in their process of transferring SRH knowledge. Respondents from Khalaf et al. (2014) pointed out that MoE should collaborate with NGOs to appoint professional sexuality educators to ensure the progress of SRH in school

Definition of Terms

Secondary school teachers. Conceptual definition: It means teachers whom are teaching from 1 until form 5 age ranging from 13 to 17 years old. There are six types of secondary schools in Malaysia namely national secondary school, secondary school, arts and sports

secondary school, technical/vocational secondary school, national religious secondary school, and national religious assisted secondary school (Ministry of Education Malaysia, n.d.)

Operational definition: Secondary school teachers teaching from Form 1 to Form 5 on these subjects, *Pendidikan Jasmani dan Kesihatan* (PJK), Biology and Science will be the target sample for this study. Moreover, this study only focused on teachers who teach in national secondary school, *Sekolah Menengah Kebangsaan* (SMK).

Willingness. Conceptual definition: Willingness is the quality or state of being prepared to do something (Willingness, n.d.).

Operational definition: Willingness referred to the respondents' score on the survey of teachers' idea about sex education in the "How willing are you right now" section (Cohen et al., 2012).

The high score indicates that respondents have greater willingness to teacher SRH.

Perceived knowledge. Conceptual definition: Perceived knowledge meant teachers' perception on their adequacy level of their sexual knowledge to teach (Cohen et al., 2012).

Operational definition: Perceived knowledge is indicated by survey of teachers' idea about sex education in the "How knowledgeable do you feel" section (Cohen et al., 2012). Higher score indicates greater perceived knowledge to teach SRH.

Comfort. Conceptual definition: It referred to a physical ease and freedom from pain (Comfort, n.d.).

Operational definition: Comfort was characterized by respondents' scores on the survey of teachers' idea about sex education in the "How comfortable do you feel right now" section

(Cohen et al., 2012). The high score indicates that respondents are more comfortable to teach SRH.

Self-efficacy. Conceptual definition: Self efficacy is the belief that one can accomplish a given goal or task to produce a positive change (King, 2014). It was originated from social cognitive theory which stated that behaviour, environment, and person/cognitive factors will contribute to the understanding of personality (Bandura, 1978).

Operational definition: Self-efficacy in this study will be indicated by the score on the self-efficacy scale (Idris, 2009). The high score indicates that respondents have greater self-efficacy to teach SRH.

Chapter II

Literature Review

Introduction

This chapter discussed about various past studies or articles that were related to research objectives as mentioned in the previous chapter. The discussion focused on four aspects, which were perceived knowledge about sexual reproductive health (SRH) education, comfort to teach, teachers' self-efficacy and gender differences that were related to the willingness of secondary school teachers in delivering SRH. The theoretical framework and conceptual framework were presented at the end of this chapter.

Perceived Knowledge on Sexual Reproductive Health Education towards Willingness

Perceived knowledge is being conceptually defined as the teachers' perception of their adequacy level on sexual knowledge to teach (Cohen et al., 2012). This indicated that with a greater perceived knowledge, teachers were more likely to teach. For instance, study by Yarber and Torabi (1997) found out that teachers were more likely to include more SRH related topics in their teaching when they were academically prepared. However, in most cases, teachers were feeling inadequate SRH knowledge. This situation was illustrated in the study by Westwood and Mullen (2007) whereby teachers were feeling inadequate in regards to knowledge on SRH related topics such as sexually transmitted diseases (STD) and contraception specifically.

Moreover, SRH education were sometimes taught by teachers whom were inexperienced in SRH education. Some of them were languages or Mathematics teachers but they were assigned by the school authorities to teach SRH education (Cohen et al., 2012; Westwood & Mullen, 2007). In this case, they reflected as having insufficient knowledge to deliver SRH

education as SRH was not their area of expertise. This reflected the importance of this study as the sample recruited will only be teachers teaching SRH related subject which were Biology, Science and PJK. If teachers who teach SRH related subjects did not feel that they have sufficient knowledge, it is unlikely that teachers from other subjects were willing to teach with the limited knowledge they have on SRH.

Furthermore, the international technical guidance on sexuality education (United Nations Educational, Scientific and Cultural Organization, 2018) pointed out that teaching SRH education can be difficult for teachers. This was due to the cultural and social context whereby people were attributing various contradictory perspective about gender, sex and sexuality. Anyway, training on SRH education for teacher was somehow useful to combat the contradictory view of SRH with the knowledge they acquired (United Nations Educational, Scientific and Cultural Organization, 2018). There were also increase in their willingness to teach SRH education as teachers developed knowledge through training (Helleve et al., 2009). In fact, perceived knowledge was a factor that hindered the Malaysian teachers' willingness to teach when they did not receive sufficient training (Salmi et al., 2017).

In short, perceived knowledge did play a role in teachers' willingness in delivering SRH. Unlike past studies that were including non SRH subjects related teachers as their sample, this study only focused on teachers whom were teaching Biology, Science and PJK. This was because they were considered as having knowledge in this field. In accordance to the result of past studies, this study anticipated that teacher with greater perceived knowledge will have greater willingness to teach SRH.

Comfort to Teach Sexual Reproductive Health Education towards Willingness

Qualitative study by Milton (2003) found out that primary school teachers were more comfortable in teaching SRH topics such as terminologies for genitals when male and female students were separated. There were also topics whereby teachers felt uncomfortable to talk about such as wet dreams, female genitals, and masturbation. Mkumbo (2012) study's pointed out that teachers support the inclusion of more SRH topics but uncomfortable and incapable to deliver the topics especially topic related to homosexuality. Homosexual topic was even unlikely to be talked in the class as majority were still attaching negative label to it in Malaysia. This situation was further proven by study from Alagappar and Kaur (2009) whereby 64 out of 86 newspapers articles published in local newspapers, New Strait Times portrayed homosexual negatively. United Nations Educational, Scientific and Cultural Organization (2018) also highlighted that teachers' comfort to teach was a major concern in delivering SRH education. Thus, comfort to teach served as one of the factors that contribute to the willingness to teach SRH education.

To summarize, past studies addressed that comfort to teach will influence the willingness to teach SRH education. However, limited studies were looking into this aspect within Malaysia context. In addition, some of the past studies remain as qualitative study which did not provide any statistical analysis in data to support the comfort to teach SRH as one of the factors in willingness to deliver SRH education among secondary school teachers in Malaysia. Hence, investigating the comfortable to teach among teachers help us to understand better on their willingness to teach SRH education in this quantitative study design.

Self-efficacy towards Willingness

Bandura (1978) defined self-efficacy as the belief in organizing and executing the course of action required to manage prospective situation. Study by Mathews, Boon, Flisher, and Schaalma (2006) on the teachers' decision to implement HIV/AIDS education was strongly related to their self-efficacy. This indicated that when teachers were having greater self-efficacy, they will be more likely to implement the HIV/AIDS education which was part of the SRH education.

Moreover, tudy in Taiwan by Pan, Chou and Hsu (2013) stated that there was a positive relationship between teachers' self-efficacy and their teaching practice in SRH education. The result indicated that teachers with higher self-efficacy are more willing to teach SRH education to students as they were spent more time and effort in preparing learning objectives and content of SRH education. In addition, the sampling of the study focused on teachers who teach both health and physical education which are similar to SRH education in Malaysia. This literature review supported the importance of current study as the sample recruited will only be teachers teaching SRH related subject which were Biology, Science and PJK.

In conclusion, previous studies only focus on teachers' self-efficacy with HIV/ AIDs implementation and teaching practice in SRH education, but none of this really look into the outcome of our study which is the willingness of teachers to deliver SRH education to students. Besides that, there was limited study within Malaysian context to look through the relationship between teachers' self-efficacy and the willingness to deliver SRH education. Hence, to fill up the knowledge gap, it is important for the current study to determine the relationship between self-efficacy and the willingness to deliver SRH education among secondary school teachers in Malaysia.

Gender Difference towards Willingness

Most Canadian junior high school teachers were able to cover non-controversial topics like puberty and reproduction when teaching SRH education (Ninomiya, 2010). This indicated that teachers are more willing to teach certain SRH topics than the others. Qualitative study in Malaysia on professionals' opinions also revealed that teachers were able to teach SRH education related life and living skills but real content of sexuality was not taught (Khalaf et al., 2014).

Besides, teachers also felt uncomfortable to talk about such as wet dreams, female genitals, and masturbation (Milton, 2003). This scenario may suggest that teacher's characteristics play a role in the willingness to teach SRH. Study also found out that male was more willing to teach SRH education (Cohen et al., 2012). As mentioned earlier, teachers were more comfortable teaching SRH topics separately on male and female students about the genitals' terminologies. This phenomenon given an idea in this study to look into whether gender of teachers really play a role in willingness to teach SRH education.

In conclusion, previous studies showed that teachers were more willing to teach non-controversial topics such as puberty and reproductive system but not willing to teach other topics such as wet dream and masturbation. Besides that, there was limited studies in Malaysia context to determine whether there is gender difference which affect the willingness of the secondary school teachers to deliver SRH education in class. However, past studies from other country proposed that male teachers were more willing to teach SRH topics to students. Therefore, to fill in the knowledge gap, this study examined whether male teachers will more willing to teach SRH education to students in Malaysia.

Theoretical Framework

Blumer's (1969) Symbolic Interactionism (SI) theory is used to guide the framework for this study. According to Blumer (1969), human formed "meaning" in three ways. First, meaning is something attributed to objects, events, and phenomenon. Second, meaning is a "physical attachment" imposed on events and objects by human. Third, meanings are handled and modified through an interpretive process used by individuals dealing with issues faced. This theory also stated that humans act towards objects and people based on the meaning that those objects and people have for them (Sudtho, Singhasiri, & Jimarkon, 2015).

In a teaching context, objects can be classified into three types which were abstract objects (belief about a person), social objects (students), and physical objects (materials and subject content) (Sudtho et al., 2015). In this study, abstract object could be focus on the level of comfortable for teachers to teach SRH education and the self-efficacy of a teacher. Meanwhile, perceived knowledge about SRH education will be the physical objects and the social objects will be students who attend SRH education. By interacting with these objects, the meaning of being a teacher gradually becomes individualized (Jerome & Bernard, 1974; Sudtho et al., 2015).

Hence, the linkage between perceived knowledge, comfort to teach, and self-efficacy towards the willingness of teacher in delivering SRH education was supported by symbolic interactionism theory. The symbolic interactionism theory helped to determine the associations among perceived knowledge, comfort to teach and self-efficacy toward the willingness to deliver SRH education among secondary schools' teachers in Malaysia.

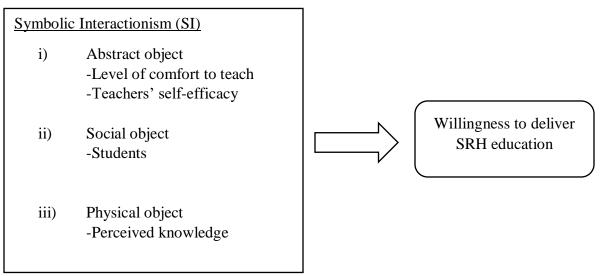


Figure 2.1. Theoretical framework of perceived knowledge about SRH, comfort to teach, teachers' self-efficacy, willingness to deliver SRH education and symbolic interactionism theory.

Conceptual Framework

The main objective of this study was to investigate the relationship between perceived knowledge, comfort to teach and self-efficacy with willingness to teach SRH education among secondary school teachers in Malaysia. The factors for this research were perceived knowledge, comfort to teach and self-efficacy while the outcome was willingness to teach sexual health education. Symbolic Interactionism theory was the foundation of conceptual framework as this conceptual framework was guided by the theory.

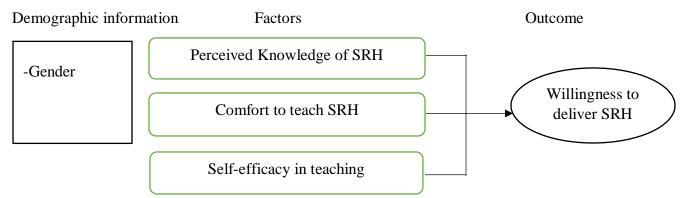


Figure 2.2. Proposed conceptual framework of perceived knowledge of SRH, comfort to teach SRH, teachers' self-efficacy and willingness to deliver SRH among secondary school teachers in Malaysia.

Chapter Summary

Several studies regarding the factors affecting teachers' willingness to deliver SRH education were summarized according to the different factors which are perceived knowledge about SRH education, comfort to teach SRH education, and self-efficacy. Besides that, studies about the relationship between gender and the teachers' willingness to deliver SRH education were also reviewed in this chapter. Symbolic Interactionism theory was used to explain the links of all the factors and the outcome of the study which is the willingness of teachers to deliver

SRH education. Lastly, the conceptual framework was shown in the diagram to provide a clear picture on the relationship between the factors and the outcome of current study.

Chapter III

Method

Introduction

The chapter outlined the research design, research population, and location of study. Moreover, the sample size, sampling method, and research procedure were also discussed.

Lastly, research instruments, data processing, and reliability of each instruments were also discussed.

Research Design

Quantitative research design was used to determine the factors affecting secondary school teacher's willingness to deliver SRH education. It was used for testing objective theories by investigating the relationship among variables which can be measured using instruments and proceed the subsequent analysis using statistical procedures (Creswell, 2014). Moreover, cross-sectional study was used in this study whereby data collection will only be done one time in different location and on individual with different cohort (Shaugness, Zechmeinster & Zechmeister, 2015). Furthermore, survey method was used for this study. The survey was available in paper and pencil form.

Location of Study and Research Population

Malaysia is located in the South East Asia. It is divided into two parts namely Peninsular (West) Malaysia and East Malaysia. Peninsular Malaysia consisted of eleven states with two federal territories. It was divided into four regions. The northern region consisted of Perlis, Kedah, Pulau Pinang, the Central region consisted of Perak, Kuala Lumpur and Selangor, the East Coast region consisted of Kelantan, Terengganu, and Pahang, the Southern region consisted

of Negeri Sembilan, Melaka, and Johor. Besides, East Malaysia consisted of Sabah, Sarawak and Federal Territory of Labuan. The central region was chosen as the location of this study. This was because Selangor was rated as first highest state with teenage pregnancies in Peninsular Malaysia (Tang, 2016). The occurrence of social issue may suggest that despite of the long existing SRH education in Malaysia, but it seemed lack of effectiveness. One of the reasons may be the teachers whom are the knowledge provider. Hence, it is important to investigate SRH education from teachers' perspective.

There was estimated a total of 155,935 teachers whom were currently serving in SMK (Ministry of Education Malaysia, 2018). The targeted respondents in this study were secondary school teachers from SMK whom currently teaching either Science, Biology or *Pendidiakan Kesihatan dan Jasmani* (PJK). This was because teachers whom were teaching these subjects were involved in SRH education.

Sample Size and Sampling Method

The actual number of teachers whom were teaching Science, Biology and PJK were not shown in statistics published by MoE. Hence, the estimated number of teachers was derived based on the number of respondents from four schools obtained from the pilot study. The sum of the fraction of Science, Biology and PJK teachers over the total number of teachers from each school were obtained. The figure obtained were divided by four and timed by 100 to estimate the percentage of Science, Biology and PJK teachers in Malaysia which was 12.21%. This figure was then timed by the population of teachers from SMK in Malaysia which yielded 19,039. Which mean it is estimated 19,039 of Science, Biology and PJK teachers in Malaysia. Based on the sample size calculation using G power analysis, the sample size obtained was 119

respondents. However, a total of 270 questionnaires were distributed to minimize the probability of missing data or incomplete questionnaire.

The sampling method used in this study is multistage cluster sampling method. A total of 27 clusters with cluster size of 10 respondents were used to frame the study. Initially, central regions represented by Perak, Selangor and Kuala Lumpur were determined as the location of study. Next, three districts were randomly selected from each of the three states in the second stage. Kinta Selatan, Kinta Utara, and Hilir Perak districts were randomly selected from Perak State. Petaling Utama, Petaling Perdana, and Sabak Bernam districts were randomly selected in Selangor state. Bangsar, Keramat, and Sentul districts were randomly selected in Kuala Lumpur state as the location of the study. Then, three schools within the districts were randomly selected which yielded a total of 27 schools in the third stage.

	Malaysia central regions (270 secondary school teachers)																									
	Perak (90)											Sela	ngor	(90)				Kuala Lumpur (90)								
	Kinta Kinta Hilir Selatan (30) Utara (30) Perak(30)					Petaling Petaling Sabak Utama (30) Perdana (30) Bernam (30)			Bangsar (30)		ar	K	Keramat (30)		Sentul (30)											
School (10)	School (10)	School (10)	School (10)	School (10)	School (10)	School (10)	School (10)	School (10)	School (10)	School (10)	School (10)	School (10)	School (10)	School (10)	School (10)	School (10)	School (10)	School (10)	School (10)	School (10)	School (10)	School (10)	School (10)	School (10)	School (10)	School (10)

Figure 3.1. Sampling framework at each level.

Research Procedure

Figure 3.2 showed the data collection procedure of this study. Prior the actual data collection, ethical approval was obtained from Universiti Tunku Abdul Rahman (UTAR) scientific and ethical review committee, refer to number U/SERC/79/2018. Any research that

was related to data collection in school setting will need to get the approval from MoE. Hence, a proposal of this study was sent through the online Educational Research Application System (eRAS 2.0) under MoE. This application was done together with the ethical clearance application from UTAR. After obtaining the approval from MoE, the approval letter was sent to *Jabatan Pendidikan Negeri* (JPN) of the selected states to obtain approval to conduct the study in respective states. The three approval letters were sent to *Pejabat Pendidikan Daerah* (PPD) to get approval for the particular schools in that district. Then, the four approval letters of the research from MoE, UTAR, JPN, and PPD were sent to all schools through email to seek approval from school principal in order to conduct the study in respective school.

Upon getting approval from school principals, paper and pencil survey questionnaires in envelop were sent to the school and distributed by the school administrator to the targeted teachers. A short description of the instruction to answer the survey was pasted in front of each envelopes. Each envelope consisted of a set of informed consent and questionnaire. Before answering the questionnaire, the respondents are required to read through the information sheet and put their signature to indicate their agreement to participate in the study.

After the respondents completed answering, they were instructed to insert the completed survey back to envelop and sealed it before submit to their management office. The survey were collected once all the respondents completed the survey. The estimated duration for each school to complete is one week.

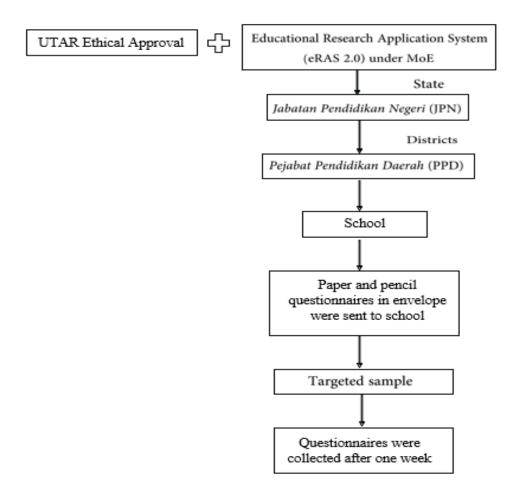


Figure 3.2. Data collection procedure

Research Instruments

This study used two instruments which were survey of teacher ideas about SRH education (Cohen et al., 2012) and self-efficacy scale (Idris, 2009).

Self-efficacy scale. Respondents' self-efficacy to deliver sexual reproductive health was being measured on a five items instrument by Idris (2009). This instrument was designed based on Bandura (1978) social cognitive theory. The respondents were required to respond on a 6-point Likert scale ranging from 1 (*Strongly disagree*) to 6 (*Strongly agree*). There was no reverse scoring in this instrument. The scores were computed using mean score. A sample item was "I

am confident in my ability to deliver sexual reproductive health lessons to students." The reliability of the instrument was .84 (Idris, 2009).

Survey of teacher ideas about sexual health education. This survey was adopted from the study by Cohen, Byers and Sears (2012). The original survey consisted a list of scales such as importance of SRH topics, appropriate age, knowledge, comfort, willingness, and factors affecting willingness to teach SRH education. This study only adopted the section whereby respondents will need to provide their responses on perceived knowledge, comfortable and willingness to deliver SRH education on the 26 listed topics such as puberty, menstruation, homosexuality. In each of the sections/columns for perceived knowledge, comfort level, and willingness, respondents responded on a 5-point Likert scale ranging from 1 (*Not at all knowledgeable; Not at all comfortable; Not at all willing*) to 5 (*Extremely knowledgeable; Extremely comfortable; Extremely willing*). The reliabilities of each sections were .96, .98, .98 respectively (Cohen et al., 2012). The items were computed by summing up the scores from the 26 topics in each section. The possible scores of each section ranging from 26 to 130, with higher scores indicating greater perceived knowledge, feeling more comfortable and greater willingness (Cohen et al., 2012).

Translation Procedure

The two instruments use, self-efficacy scale and survey of teacher ideas about sexual health education were originally in English version. *Bahasa Malaysia* (BM) is the official language used in Malaysia. Thus, since the study is conducted in Malaysia, there is a need to translate the questionnaire into BM version to provide a better understanding as majority of teachers may taught SRH in BM.

Back to back translation was carried out. The English version questionnaire was translated in BM version. Next, an expert with relevant knowledge on SRH translated the BM version's questionnaire into English version without referring to the original English questionnaire. Finally, a comparison of the two translated questionnaires were made to cross-validate the content of questionnaire.

Reliability

Pilot study was done three months before the actual study which was October 2018 in Perak state. Three regions which are Tapah, Kampar, and Ipoh were randomly selected. A total of 41 secondary school teachers whom were teaching Biology, Science and PJK were recruited for the pilot study. The age ranged from 22 to 55 and the mean age of respondents was 35.02 years (SD = 7.49). The reliability of the perceived knowledge, comfort to teach, self-efficacy, and willingness to teach were .97, .98, .95, .98 respectively for pilot study.

The reliability of perceived knowledge, comfort to teach, self-efficacy, and willingness to teach were .97, .97, .95, .97 respectively were reported for actual study. The reliability of each scales was shown in Table 3.1.

Table 3.1

Reliability of Perceived Knowledge, Comfort to Teach, Self-Efficacy and Willingness to Teach

SRH Education from Pilot and Actual Study

Scale	Cronbach's alpha, α				
	No. of items	Original scale	Pilot study (n = 41)	Actual study (n= 252)	
Perceived knowledge	26	.960	.970	.965	
Comfort to teach	26	.980	.976	.968	
Self-efficacy	5	.840	.952	.947	
Willingness to teach	26	.980	.975	.971	

Exploratory Data Analysis (EDA)

Normality Test. By referring to Table 3.2, the distribution of perceived knowledge scale was negatively skewed (-0.25), comfort to teach scale was negatively skewed (-0.31), self-efficacy scale was negatively skewed (-0.82), and willingness to teach scale was negatively skewed (-0.23). As illustrated from Table 3.2, the skewness and kurtosis ranged from -2 to +2. This indicated that the data fall in an acceptable range and was fairly normally distributed (George & Mallery, 2010). The basic assumption of parametric was fulfilled.

Table 3.2

Normality of All Variables Using EDA, Skewness, and Kurtosis (n = 252)

Scale	Mean	SD	5% Trimmed Mean	Skewness	Kurtosis
Perceived knowledge	90.90	17.32	91.17	-0.25	-0.03
Comfort to teach	84.43	19.46	84.80	-0.31	0.05
Self-efficacy	21.16	5.46	21.41	-0.82	0.55
Willingness to teach	83.64	20.09	83.90	-0.23	0.02

Multicollinearity. Multicollinearity occurred when the independent variables were highly correlate with each other. It was also an important assumption to look into before one performs multiple regression. Pearson's product-moment correlation coefficient was conducted to determine whether there is occurrence of multicollinearity. The result was illustrated in Table 3.3 showed that none of the independent variables which were highly correlated. The strength of the relationship between independent variables were ranging from .45 to .76. The variables which were highly correlated were the comfort to teach (independent variable) with willingness to teach (dependent variable).

Table 3.3

Pearson's Product-moment Correlation Coefficient among Perceived Knowledge, Comfort to Teach, Self-Efficacy and Willingness to Teach SRH Education (n = 252)

Variables	1	2	3	4	Tolerance value	VIF
1. Perceived knowledge	1				.424	2.360
2. Comfort to teach	.759***	1			.333	3.007
3. Self-efficacy	.450***	.620***	1		.616	1.624
4. Willingness to teach	.750***	.980***	.619***	1		

Note. *** *p* < .001

Multicollinearity was determined by tolerance value and variance inflation factor (VIF). Table 3.3 illustrated the result of multicollinearity for all independent variables. Multicollinearity occurred when the value of tolerance is lesser than 0.2 and when VIF is above 10 (Sinan & Alkan, 2015). Therefore, tolerance of value in existing study ranged from .333 to .616 and VIF were all below 10 which implied that multicollinearity did not happen in the study.

Data Processing and Analyzing

The data collected was analyzed using a software named IBM Statistical Package for Social Science (SPSS) version 23. Descriptive and inferential statistics (Pearson correlation, multiple regression, *t*-test) were used to answer the research questions of the study.

Descriptive statistics was used to describe the characteristics of respondents such as age, gender, religion, and subjects that they are teaching. It also served to describe the data obtained in terms of the mean, standard deviation, variance, minimum, and maximum value. Inferential statistics is used to determine the relationship and make prediction and interpretation among variables.

The Pearson product-moment correlation coefficient was used to determine the strength and direction of the linear relationship between two variables (Bluman, 2014). It also refers to Pearson correlation with the symbol r. The correlation ranges from -1 to +1 where by "-" indicates a negative relationship and "+" indicates a positive relationship between variables. In this study, Pearson correlation was used to determine the relationship of perceived knowledge, comfort to teach and self-efficacy on willingness to teach SRH education among secondary school teachers in Malaysia. The relationship obtained also serves as one of the assumptions of multiple regression.

Multiple regression was used to predict the value of independent variable based on the value of two or more independent variables (Bluman, 2014). In this study, multiple regression was used to determine whether knowledge, comfort to teach, self-efficacy predict the willingness to teach SRH education. Besides, independent *t*-test was used to compare the mean of two unrelated group on the same continuous dependent variable (Bluman, 2014). For example, *t*-test

was used to compare gender difference on the willingness to teach SRH education between male and female teachers.

Chapter Summary

Quantitative study, cross-sectional design, and multistage cluster sampling method were used in this study. Survey of teacher ideas about SRH education and self-efficacy scale are used to measure the variables of the study. Pilot study was carried out to determine the reliability of scales. Results showed that the scales had high reliability. IBM Statistical Package for Social Science (SPSS) version 23 was used to conduct descriptive statistics, Pearson's product-moment correlation test, multiple regression test, and independent *t*-test.

Chapter IV

Result

Introduction

This chapter discussed the background of the respondents and the frequency distribution of the variables. Moreover, the interpretations and explanations of the statistical analyses were also presented.

Descriptive Statistics

A total of 270 respondents were collected and filtered. However, 18 responses were excluded from subsequent analysis due to incomplete response rate up to 60% (Fincham, 2008). Hence, 252 respondents were remained for analysis.

Demographic information. Table 4.1 illustrated the demographic information of the respondents in this study. Among 252 respondents, there were 54 males (21.4%) and 198 females (78.6%). The age of respondents ranged from 26 to 59 years old (M = 39.37, SD = 7.83). Most of the respondents were Malay (82.5%), followed by Chinese (11.9%), Indian (4.4%), and others ethnicities (1.2%) such as Bidayuh and Siam. The sample consisted of Islam (83.3%), Buddhism (11.1%), Hinduism (2.4%), and Christianity (3.2) in their religion. Based on the multi-respond question where the respondents can choose more than one option, more than half of the respondents (59.5%) teaching Biology subject, 37.3% of them teaching PJK, and 14.3% of respondents teaching Science subjects.

Table 4.1 $Demographic\ Information\ of\ Respondents\ (n=252)$

	n (%)	Mean	SD	Min	Max
Age		39.37	7.83	26	59
Gender					
Male	54 (21.4)				
Female	198 (78.6)				
Ethnicity					
Malay	208 (82.5)				
Chinese	30 (11.9)				
Indian	11 (4.4)				
Others	3 (1.2)				
Religion					
Islam	210 (83.3)				
Buddhism	28 (11.1)				
Hinduism	6 (2.4)				
Christianity	8 (3.2)				
Subjects teaching related to SRH					
PJK	94 (37.3)				
Science	151 (59.5)				
Biology	36 (14.3)				

Note. SD = Standard Deviation; Min = Minimum; Max = Maximum.

Research Question 1: What is the level of perceived knowledge, comfort to teach, self-efficacy, and willingness to teach SRH education among secondary school teachers in Malaysia?

Frequency distribution of variables. Table 4.2 illustrate the frequency distribution of perceived knowledge, comfort to teach, self-efficacy and willingness to teach. The mean and standard deviation of each variables were shown. Teachers' perceived knowledge was found to have a mean score of 90.90 (SD = 17.32), comfort to teach yielded a mean score of 84.43 (SD = 19.46), self-efficacy had a mean score of 21.16 (SD = 5.46), and willingness to teach had a mean score of 83.65 (SD = 20.09).

Specifically, more than three quarters (77.7%) of respondents were having moderate level of perceived knowledge while only 22.3% of them having high perceived knowledge. Moreover, 86.1% of respondents feeling moderately comfortable to teach SRH education while less than one quarter (13.9%) feeling highly comfortable. In term of self-efficacy, there were 7.6%, 33.7%, 58.7% of them having low, moderate, and high level of self-efficacy. There were 86.5% of respondents feeling moderately willing to teach SRH education while only 13.5% of them having high willingness.

Table 4.2

Frequency Distribution of the Variables (n = 252)

Scale	n (%)	Mean	SD	Min	Max
Perceived knowledge		90.90	17.32	30	126
Moderate (27-104)	196 (77.7)				
High (105-130)	56 (22.3)				
Comfort to teach		84.43	19.46	30	126
Moderate (27-104)	217 (86.1)				

High (105-130)	35 (13.9)				
Self-efficacy		21.16	5.46	5	30
Low (1-10)	19 (7.6)				
Moderate (11-20)	85 (33.7)				
High (21-30)	148 (58.7)				
Willingness to teach		83.65	20.09	30	126
Moderate (27-104)	218 (86.5)				
High (105-130)	34 (13.5)				

Note. SD = Standard Deviation; Min = Minimum; Max = Maximum.

Inferential Statistics

This section presented the correlation analysis, multiple regression, and independent *t*-test based on the research questions of the study.

Research Question 2: Do perceived knowledge, comfort to teach and self-efficacy each has a relationship with willingness to teach SRH education among secondary school teachers in Malaysia?

H₁: There is a positive relationship between perceived knowledge and willingness to teach SRH education among secondary school teachers in Malaysia.

H₂: There is a positive relationship between comfort to teach and willingness to teach SRH education among secondary school teachers in Malaysia.

H₃: There is a positive relationship between self-efficacy and willingness to teach SRH education among secondary school teachers in Malaysia.

As illustrated in Table 4.3, there was a significant positive correlation between perceived knowledge and willingness to teach SRH education among secondary school teachers in Malaysia, r(250) = .748, p < .001. Furthermore, there was a significant positive correlation between comfort to teach and willingness to teach SRH education among secondary school teachers in Malaysia, r(250) = .976, p < .001. Moreover, there was also a significant positive correlation between self-efficacy and willingness to teach SRH education among secondary school teachers in Malaysia, r(250) = .619, p < .001. Pearson's correlation coefficient (r) is itself indicating the strength of relationship between variables and hence separate measure of effect size is not needed. Value of r of around .1 can be considered small, .3 is can be considered medium and .5 can be considered large (Allen & Bennett, 2007). The r value in this study ranged from .450 to .980. Hence, the strength between variables are considered as large.

Table 4.3

Correlation among Perceived Knowledge, Comfort to Teach, Self-Efficacy and Willingness to Teach SRH Education (n=252)

Variables	Mean	SD	1	2	3	4
1. Perceived knowledge	90.902	17.321	1			
2. Comfort to teach	84.434	19.462	.759***	1		
3. Self-efficacy	21.163	5.468	.450***	.620***	1	
4. Willingness to teach	83.645	20.091	.748***	.976***	.619***	1

Note. *** p < .001

Research Question 3: Do knowledge, comfort to teach, self-efficacy predict the willingness to teach SRH education among secondary school teachers in Malaysia?

Multiple regression analysis was used to test whether perceived knowledge, comfort to teach and self-efficacy significantly predicted willingness to teach SRH education. The model was statistically significant, F(3, 248) = 1664.82, p < .001, and accounted 95.3% of variance. It was found that comfort to teach ($\beta = .948$, p < .001), but not perceived knowledge and self-efficacy, significantly predicted willingness to teach. The effect size was determine using the formula of $f^2 = R^2/1-R^2$ which yielded a result of 20.27.

The f^2 of .02 can be considered small, f^2 of .15 can be considered medium and f^2 of .35 can be considered large (Allen & Bennett, 2007). Hence, the effect size was considered large.

Table 4.4

Multiple Regression Analysis in Predicting the Willingness to Teach SRH Education among Secondary School Teachers in Malaysia (n = 252)

Predictors	В	SE B	β	t	p
Constant	-2.67	1.55			
Perceived knowledge	.089	.065	.024	3.52	.173
Comfort to teach	.020	.025	.017	.817	.414
Self-efficacy	.978	.025	.948	39.572	.001

Note. β = Standardize Coefficient; p = p-value; F(3, 248) = 1664.82; p < .001

Research Question 4: Is there any gender difference in delivering SRH education?

H₄: Male teachers are more willing to teach SRH education.

Independent sample t-test showed that there was no gender difference in the willingness to teach, t = 0.86, p = .39, d = 0.13. Male (M = 85.74, SD = 20.91) and female (M = 83.07, SD = 19.88) had almost equal scores in willingness to teach SRH education.

Chapter Summary

Table 4.5

Summary of the Result

Research Questions	Hypothesis	Result	Reject or fail to reject
What is the level of perceived knowledge, comfort to teach, self-efficacy, and willingness to teach SRH education among secondary school teachers in			to reject
efficacy each has a relationship with willingness	H ₁ : There is a positive relationship between perceived knowledge and willingness to teach SRH education among secondary school teachers in Malaysia. H ₂ : There is a positive relationship between comfort to teach and willingness to teach SRH education among secondary school teachers in Malaysia.	r = .748, $p < .001$ $r = .976,$ $p < .001$	Reject H ₀ Reject H ₀
	H ₃ : There is a positive relationship between self-efficacy and willingness to teach SRH education among secondary school teachers in Malaysia.	r = .619, p < .001	Reject H ₀

Do knowledge, comfort to		Comfort	
teach, self-efficacy predict		to teach is	
the willingness to teach SRH		the only	
education among secondary		significant	
school teachers in Malaysia?		predictor,	
		<i>p</i> < .001	
Is there any gender	H _{4:} Male teachers are more	t = 0.86,	Fail to reject
difference in delivering SRH	willing to teach SRH education.	p = .389	H_0
education?		1	

Table 4.5 illustrated the summary of result. In short, the findings showed that there was significant positive relationship of each factors (perceived knowledge, comfort to teach, and self-efficacy) with willingness to teach. Comfort to teach was also found to be the only predictor for willingness to teach. However, there was no significant differences between male and female in their willing to teach.

Chapter V

Discussion

Introduction

The discussion of the analyzed result with the support from past studies was presented in this chapter. The implication of study, limitation, and recommendation for future research were also discussed.

Discussion

The current study examined the factors which were perceived knowledge, comfort to teach, self-efficacy on teachers' willingness to teach SRH education in Malaysia secondary schools. Generally, majority of teachers felt somehow knowledgeable, moderately comfort to teach, high self-efficacious, and lastly somehow willing to teach SRH education. The moderate level of all these factors could be questionable whether teachers are adequately equipped to deliver SRH knowledge. This is important as students spent almost half of their day receiving knowledge in school. The moderate level of those factors may influence the effectiveness of teachers in delivering the knowledge.

Generally, when the teachers perceived themselves as having the SRH knowledge and felt comfortable to teach, they are more willing to teach SRH education. This finding was consistent with the research by Cohen et al. (2012) whereby the result showed that there was a relationship among perceived knowledge, comfort, and willingness to teach. This result further supported few local studies (Salmi et al., 2017; Siti et al., 2016) whereby effective teaching process is more likely to happen when teaches equipped with SRH knowledge. When teachers have high self-efficacy, they were more willing to teach. This was in line with the past study

(Mathews et al., 2006) whereby teachers' decision to teach HIV/STD education was highly related to self-efficacy. This explained if teachers believe they have the ability to overcome challenges and break the norm the SRH is a taboo in Malaysia tend to have higher willingness to deliver SRH education. Self-efficacy is important for teachers as highlighted in the study by Ross, Hogaboam-Gray, and Hannay (2001) demonstrated that teachers with high levels of self-efficacy yielded better students' achievement in various subjects.

Moreover, comfort to teach appealed as the only predictor in explaining willingness to teach after controlling the effect of perceived knowledge and self-efficacy. This result was inconsistent with the past study (Cohen et al., 2012) whereby teachers' perceived knowledge was found to be a better predictor for willingness to teach SRH education. This inconsistency may be explained by the sensitivity of SRH education in Malaysia and misconception are still persist. For instance, sex brings a negative connotation and delivery of SRH education is belief to being more harm than good (Salmi et al., 2017). Hence, their perception and misconception may contribute to their comfort to teach. This is similar to the premise in symbolic interactionism which stated meanings are handled and modified through an interpretive process (Sudtho et al., 2015). Which mean when SRH knowledge of teachers is being handled in a comfortable manner, they will be more willing to teach.

This study also observed that male and female teachers had almost similar willingness to teach SRH education which was inconsistent with the past study (Cohen et al., 2012). Past study found that male teachers were generally more willing to teach SRH education. This can be explained by teacher-student gender matches. For example, when teacher' gender is match to the students' gender, female student was more likely to ask questions to female teacher and teacher are likely to assign easier homework (Lim & Meer, 2017). Hence, if samples were draw from

teachers teaching single sex school, differences in gender willingness to teach might be observed. In short, there are other factors such as perceived knowledge, comfort, and self-efficacy that might preceded gender.

Implication of the Study

Theoretical Implication. The theory used in this study was symbolic interactionism theory which explained human actions were the result of own interpretation of surrounding events and objects (Sudtho et al., 2015). In teaching context, the objects were categorized into physical (materials or content taught), abstract (belief), and social (students) objects. In teaching context, teachers becoming more individualize by interacting with these objects. Based on the result, it showed that perceived knowledge, comfort to teach, and self-efficacy were correlated with willingness to teach. This may imply that interaction with these objects eventually makes the teachers more willing to teach SRH education.

Besides, self-efficacy also plays a role in the willingness of teachers. Past study showed that self-efficacy was an important variable for teaching effectiveness that was related to teachers' behavior and students' outcome (Bray-Clark & Bates, 2003). The study highlighted the rationale to integrate self-efficacy as the focus of teachers' training aiming to improve teacher's competency. Hence, current study further provides evidence that self-efficacy should be included as part of teachers' training to develop a professional competency.

Practical Implication. The result of the study may serve as evidence to MoE that teachers required more training which primarily focus on enhancing their comfort to teach SRH education. Cognitive development and enhancement in training is important but the internal factor like comfort cannot be easily build based on any textbooks or classes. The design of

training may emphasize on role play and group discussion on the SRH topics openly and genuinely so that they can freely express their idea without considering much of embarrassment to talk about SRH.

Nevertheless, online training for teachers' professional development should also be considered. Some teachers may be unable to attend training for few consecutive days. Online training for teachers in SRH education enables them to follow individual pace and accessible at their convenient. More importantly, it standardizes the knowledge transfer as every teacher are receiving the same materials. Online training can also benefit more teachers as it online required the internet to gain access. Unlike traditional training for teachers which normally involved several procedures such as confirm call up for training, arrangement of date, time, and venue, online training provides an easier and convenient way of learning.

Besides, MoE may consider to revise SRH education as an exam-based subject to be evaluated in the main examination in Malaysia such as "Ujian Pencapaian Sekolah Rendah" (UPSR), "Pentaksiran Tingkat Tiga" (PT 3), and "Sijil Pelajaran Malaysia" (SPM). SRH education especially in PJK has been perceived as a less important subject and is commonly replaced by other subjects' teachers to teach Mathematics, English, Chemistry, and others. Little attention given to SRH education maybe justifiable by the exam-oriented school culture where grades are receiving more attention than the life skill practical. Hence, transforming SRH education as an exam-based subject may make teachers to put more effort to teach and more emphasis will be given to this subject instead of a "touch and go" subject. This action could ensure the effective knowledge transfer by testing the knowledge receive from the students.

Moreover, training should also focus on acquisition and application of SRH knowledge.

It may guide the teachers to prepare and select suitable teaching aids such as genitals model and

videos to provide better understanding. Training should be held consistently so that teachers are always be updated with latest information and exchange their challenges encountered. Online social chat room such as "Whatsapp" can be created after the training. It may serve as a form of support group among the teachers.

Besides, seminar focusing on self-efficacy in teaching professional can be considered. Teachers act as an agent of change in SRH education. As highlighted in the study by Bray-Clark and Bates (2003), teachers with high self-efficacy were able to response spontaneously towards challenging situations. Students' out of context questions may sometimes challenge the teacher's subjective interpretation of SRH education. Hence, with self-efficacy, teachers may be able to provide appropriately responses.

It is important to acknowledge that the SRH syllabus is well-validated by various professional. However, teachers are the one who delivering the knowledge whereby each of them may have different subjective interpretation towards SRH education which may subsequently affect their willingness. Hence, training or seminar which aims to enhance their comfort, knowledge, and self-efficacy should be taken into serious consideration.

Limitations and Recommendations

The low response rate was one of the limitations. 12 sets of questionnaires were distributed to each school. However, the complete questionnaire received were averagely around nine sets from each school. Furthermore, some of the questionnaires were not fully answered. Hence, considering SRH is still a taboo in society, future research may consider using a face-to-face interview method to enhance the response rate. Meanwhile, this method provides a better

understanding of the items as the respondents can seek clarification from the researchers immediately.

Moreover, the number of male and female respondents in comparing their willingness to teach remain as a limitation. Existing study compared using ratio method whereby the ratio of male to female is 3:10. This is consistent with the existing ratio of male and female secondary found in Malaysia (Ministry of Education, 2018). Future research may consider obtaining equal number of male and female respondents to yield a more accurate result.

Besides, the use of mix method research design which integrate quantitative and qualitative should be considered in future study. Quantitative often provide a statistical understanding among the predictors and outcomes. However, integrating qualitative research design may help to enrich the discussion whereby a more in depth and personal responses can be obtained.

Furthermore, readiness to teach should be taken into consideration in future study. Willingness was defined earlier as the quality or state of being prepared to do something. There is a distinctive difference between these two words whereby readiness implied that the quality of being immediate, quick, or prompt (Readiness, n.d.) and prepared to do something mentally and physical (Williams, 2015). Which mean willing to teach does not guarantee one to be ready to teach SRH education. Hence, it is important to look into the teachers' readiness in future study.

Nevertheless, school management level, policy, students' perception on the effectiveness of implementation of SRH education, and parent's acceptance level may be considered as variables in future study. These school cultures are significant factors for successful implementation of SRH education. For instance, management whom support this subject will be

willing to purchase teaching materials and facilities to ease the teaching process which may further enhance students' understanding. Supportive parents (Makol-Abdul, Nurullah, Imam, & Rahman, 2009) may provide teachers a greater confident to deliver SRH education. Hence, these variables should be considered to explore further.

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Appendices

Appendix A: Questionnaire



UNIVERSITI TUNKU ABDUL RAHMAN (UTAR)

Factors affecting teachers' willingness to deliver sexual reproductive health (SRH) education in Malaysia.

Department of Psychology and Counselling

INTRODUCTION

We (Goh Yee Shan and Foo Hor Yern) are students from Psychology Department currently doing our Final Year Project with the title mentioned above. We are currently conducting a survey in regards of the topic mentioned above for subsequent data analysis.

PARTICIPANTS' RIGHTS

If you have any questions, you may ask the researchers before begins answering the survey. You may decide to stop your participation at any time.

BENEFITS AND RISKS

There are no direct risks or discomforts for the study.

CONFIDENTIALITY/ANONYMITY

Data collected will only be seen by members and supervisor of this study, and will not be linked to any identifying information (e.g., name, address, email) that you provided. The anonymous data collected may be shared with other researchers via public data repositories, with summaries presented at conferences and in academic publications. We will ensure that it is impossible to identify your identity from any of the information we publish and share about this study.

FOR FURTHER INFORMATION

If you have further questions, please feel free to contact Ms. Goh (<u>kellygoh97@1utar.my</u>; 017-6623213) or Ms. Foo (<u>hyernfoo@1utar.my</u>; 014-6695915)

SIGNATURE

By signing below,	you are agre	eing that: (1)	you have read	and understoo	od the Participant
Information Sheet,	(2) purpose	of study (3) p	ootential risks	and benefits (4	4) confidentiality.

Signature	Date

Part A. Although we do not wish to know who you are, it is important that we know some of the characteristics of the people who complete this questionnaire. Please provide the following information about yourself by circling or ticking the appropriate answer.

A1.	Gender
	a. Maleb. Female
	o. remaie
A2.	Age:
A3.	Race ☐ Malay
	☐ Chinese
	Indian
	Others. Please specify:
A4.	Religion
	□ Islam
	□ Buddhism
	Hinduism
	Christianity
	Others. Please specify:
A5.	Subject that you are teaching:
	a. Pendidikan Kesihatan dan Jasmani (PJK)
	b. Science
	c. Biology
A6.	Effort made by school to improve Sexual Reproductive Health (SRH) education.
A7.	Other than school authority, which party should take the responsibility to deliver Sexual
111.	Reproductive Health (SRH) education.
	Parents
	Religion leaders
	☐ Experts (e.g. doctors)
	☐ Social media
	Others. Please specify:

Part B. Your belief on your own capabilities.

	Strongly disagree	Moderately disagree	Slightly disagree	Slightly agree	Moderately agree	Strongly agree
B1. I am confident in my ability to deliver my sexual reproductive health to students.	1	2	3	4	5	6
B2. I am confident in my ability to carry out sexual reproductive health lessons.	1	2	3	4	5	6
B3. I am confident in my ability to provide sexual reproductive health education.	1	2	3	4	5	6
B4. I am confident in my ability to guide my students on sexual reproductive health education.	1	2	3	4	5	6
B5. I am confident in my ability to share knowledge through writing on sexual reproductive health education.	1	2	3	4	5	6

Part C. Below is a list of sexual health education topics that could be covered in the classroom. For each topic, on a scale of 1 to 5, please circle the number that represents the extent to which you would:

- (a) feel knowledgeable enough right now to teach this topic.
- (b) feel comfortable teaching this topic right now;
- (c) be willing to teach this topic right now.

If you were asked to teach this topic as part of the Sexual Reproductive Health (SRH) Education.

	How knowledgeable do you feel? 1 = Not at all knowledgeable 5 = Extremely knowledgeable			How comfortable do you feel right now? 1 = Not at all comfortable 5 = Extremely comfortable				How willing are you right now? 1 = Not at all willing 5 = Extremely willing							
Correct names for genitals	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
Body image	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
Puberty	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
Wet dreams	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
Menstruation	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
Reproduction & birth	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
Birth control methods & safer sex practices	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
Abstinence (practice of not doing or having something that is wanted or enjoyable such as sex)	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
Sexually transmitted diseases/AIDS	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
Teenage pregnancy/ parenting	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
Child sexual abuse	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
Sexual coercion & sexual assault	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
Building equal romantic relationships	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
Homosexuality	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
Attraction, love, intimacy	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
Communicating about sex	1	2	3 3	4	5	1	2 2 2	3	4	5	1	2 2 2	3 3	4	5
Being comfortable with the other sex	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
Dealing with peer pressure to be sexually active	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
Masturbation	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
Sexual behavior (e.g. French kissing, intercourse)	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5

Sex as part of a loving	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
relationship															
Sexual pleasure & orgasm	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
Sexual problems and concerns	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
Sexuality in the media	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
Pornography	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
Teenage prostitution	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5

⁻Thank you for your cooperation. Wish you have a nice day!-

Appendix B: Ethical approval for research project



Re: U/SERC/79/2018

20 July 2018

Mr Tan Soon Aun
Department of Psychology and Counselling
Faculty of Arts and Social Science
Universiti Tunku Abdul Rahman
Jalan Universiti, Bandar Baru Barat
31900 Kampar
Perak

Dear Mr Tan,

Ethical Approval For Research Project/Protocol

We refer to your application dated 26 June 2018 for ethical approval for your research project (Undergraduate students' project) and are pleased to inform you that your application has been approved under expedited review.

The details of your research project are as follows:

Research Title	Factors Affecting Secondary School Teachers' Willingness to Deliver Sexual Health Education in Malaysia
Investigator(s)	Mr Tan Soon Aun Goh Yee Shan (UTAR Undergraduate Student) Foo Hor Yern (UTAR Undergraduate Student)
Research Area	Social Sciences
Research Location	Secondary schools in Perak and Klang Valley
No of Participants	386 participants (Age: 21 - 60)
Research Costs	Self-funded
Approval Validity	20 July 2018 - 19 July 2019

The conduct of this research is subject to the following:

- (1) The participants' informed consent be obtained prior to the commencement of the research,
- (2) Confidentiality of participants' personal data must be maintained; and
- (3) Compliance with procedures set out in related policies of UTAR such as the UTAR Research Ethics and Code of Conduct, Code of Practice for Research Involving Humans and other related policies/guidelines.

Kampar Campus: Jalan Universiti, Bandar Barat, 31900 Kampar, Perak Darul Ridzuan, Malaysia

Tel: (605) 468 8888 Fax: (605) 466 1313

Sungai Long Campus: Jalan Sungai Long, Bandar Sungai Long, Cheras, 43000 Kajang, Selangor Darul Ehsan, Malaysia

Tel: (603) 9086 0288 Fax: (603) 9019 8868

Website: www.utar.edu.my



Should you collect personal data of participants in your study, please have the participants sign the attached Personal Data Protection Statement for your records.

The University wishes you all the best in your research.

Thank you.

Yours sincerely,

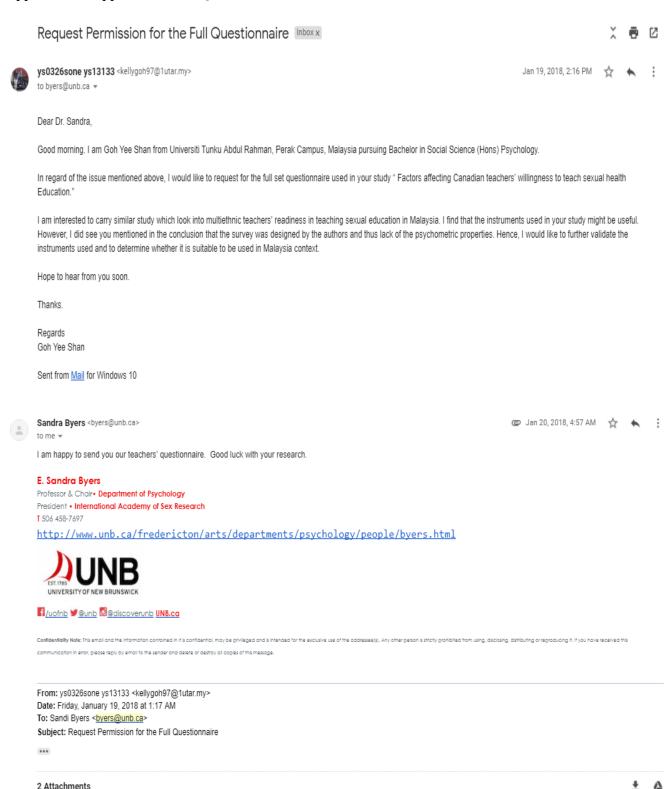
Professor Ir Dr Lee Sze Wei

Chairman

UTAR Scientific and Ethical Review Committee

c.c Dean, Faculty of Arts and Social Science
 Director, Institute of Postgraduate Studies and Research

Appendix C: Approval to use Questionnaire



Appendix D: Approval of Research by MoE



KEMENTERIAN PENDIDIKAN MALAYSIA MINISTRY OF EDUCATION MALAYSIA BAHAGIAN PERANCANGAN DAN PENYELIDIKAN DASAR PENDIDIKAN EDUCATIONAL PLANNING AND RESEARCH DIVISION

Aras 1-4, Blok E8

Kompleks Kerajaan Parcel E.

Pusat Pentadbiran Kerajaan Persekutuan

62604 Putrajaya

Telefon : 03-8884 6500 Faks : 03-8884 6439 Laman Web : www.moe.gov.my

Ruj. Kami Tarikh KPM.600-3/2/3-eras(1734)

; 4 Disember 2018

GOH YEE SHAN K.P. 970326045418

2193 JLN SEKSYEN 2/5 BANDAR BARAT 31900 KAMPAR PERAK

Tuan,

KELULUSAN BERSYARAT UNTUK MENJALANKAN KAJIAN: FACTORS AFFECTING SECONDARY SCHOOL TEACHERS' WILLINGNESS TO DELIVER SEXUAL HEALTH EDUCATION IN MALAYSIA

Perkara di atas adalah dirujuk.

- Sukacita dimaklumkan bahawa permohonan tuan untuk menjalankan kajian seperti tersebut di atas telah diluluskan dengan syarat:
 - " KELULUSAN INI BERGANTUNG KEPADA PERTIMBANGAN PENTADBIR SEKOLAH. PENGUTIPAN DATA TERHAD KEPADA GURU SAHAJA."
- Kelulusan ini adalah berdasarkan kepada kertas cadangan penyelidikan dan instrumen kajian yang dikemukakan oleh tuan kepada Bahagian ini. Walau bagaimanapun kelulusan ini bergantung kepada kebenaran Jabatan Pendidikan Negeri dan Pengetua / Guru Besar yang berkenaan.
- Surat kelulusan ini sah digunakan bermula dari 5 Disember 2018 hingga 4 April 2019.
- 5. Tuan juga mesti menyerahkan senaskhah laporan akhir kajian dalam bentuk hardcopy bersama salinan softcopy berformat Pdf, di dalam CD kepada Bahagian ini. Tuan diingatkan supaya mendapat kebenaran terlebih dahulu daripada Bahagian ini sekiranya sebahagian atau sepenuhnya dapatan kajian tersebut hendak dibentangkan di mana-mana forum, seminar atau diumumkan kepada media massa.

Sekian untuk makluman dan tindakan tuan selanjutnya. Terima kasih.

"BERKHIDMAT UNTUK NEGARA"

Saya yang menjalankan amanah,

Maryayla

(DR. NOR SAIDATUL RAJEAH BINTI ZAMZAM AMIN)

Ketua Sektor

Sektor Penyelidikan dan Penilaian

b.p. Pengarah

Bahagian Perancangan dan Penyelidikan Dasar Pendidikan

Kementerian Pendidikan Malaysia



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Appendix E: Approval of Research by States



KEMENTERIAN PENDIDIKAN MALAYSIA

Jabaran Pendidikan Wilayah Persekutaan Kuala Lumpur Persianan Tunaku Syed Simjuddin 50604 Kinda Lempur

= 03 6204 6801 Fax Poetal : jpupkl.mor.gou.ney

103 6204 6000

Ruj.Kami : JPNWP. 900-6/1/7 Jld2/1 (Q2) 20 8 sember 2018 Tarikh

Goh Yee Shan 2193 Jalan Seksyen 2/5 Bandar Barat 31900 Kampar Perak

Tuan.

KEBENARAN UNTUK MENJALANKAN KAJIAN DI SEKOLAH-SEKOLAH, PEJABAT PENDIDIKAN WILAYAH DAN JABATAN PENDIDIKAN WILAYAH PERSEKUTUAN KUALA

Dengan segala sukacitanya saya merujuk kepada perkara di atas. Suret tuan bertarikh 11 Disember 2018 dan surat kebenaran daripada Bahagian Perancangan dan Penyelidikan Dasar Pendidikan, Kementerian Pendidikan Malaysia bil (1734) dalam KPM.600-3/2/3-eras bertarikh 4 Disember 2018 adalah berkaitan.

- Dimaklumkan behawa permotonan tuan untuk menjalankan kajian bertajuk 'Factors' Affecting Secondary School Teachers' Willingness to Deliver Sexual Health Education in Malaysia" diluluskan dan tuan adalah tertakluk di bawah syarat-syarat berikut
 - Kelulusan ini adalah tertakluk kepada kandungan dalam cadangan penyelidikan yang talah diluluskan oleh Kementerian Pendidikan Meleysia. Sila kemukakan surat kebenaran ini ketika berurusan dengan pihak 21
 - 2.2 pengurusan/Pengatua/Guru Besar di Sektor/Pejabat Pendidikan Wilayah/sekolah berkenaan.
 - 2.3 Kebenaran ini bergantung kepada pertimbangan pihak pentadbir sekolah berkenaan
 - 2.4
 - Pengutipan data terhad kepada guru sahaja Kalulusan ini hanya untuk sekolah-sekolah di bawah pentadoiran Jabatan 2.5 Pendidikan Wilayah Persekutuan Kuala Lumpur sahaja.
 - 2.8 Tuan hendakiah mengemukakan senaskhah hasil kajian kepada Jabatan ini sebaik sahaja ia siap sepenuhnya.
- Kebanaran ini adalah untuk bujuan dipohon sahaja dan sah digunakan bermula dari 8 Disember 2018 hinggs 4 April 2019.

Seklan, terima kasih.

BERKHIDMAT UNTUK NEGARA "

Saya yang manjalankan amanah,

(SHARIMAH ET RAMLI) Katua Pengeng Pengarah Sektor Pengulusan Sekolah b.p. Peggarah Pendidikan,

Jebelag Pendicikan Wilayah Persekutuan Kuala Lumpur.

- s.k- Pengarah Pendidikan, Jabatan Pendidikan Wilayah Persekutuan Kuala Lumpur
 - Timbalan Pengarah Pendidikan, Pejabat Pendidikan Wilayah Bangsar Pudu, Kuata Lumpur
 - Timbalan Pengarah Pandidikan, Pejabat Pendidikan Wilayah Sentul, Kutala Lumpur.
 - Timbalan Pengarah Pendidikan, Pejabat Pendidikan Wilayah Keramat, Kuala Lumpur.



Jalan Tun Abdul Razak 30640 Ipoh, Perak Darul Ridzuan Tel Faks : 605.501.5000

Faks Laman Web : 605 527 7273 : http://jpmperak.moe.gov.my

Ruj. Tuan :

Ruj. Kami: JPNPk.SPS.UPP.600-1 Jld. 2 (20)

Tarikh : Klanuari 2019

GOH YEE SHAN

2193 Jalan Seksyen 2/5 Bandar Barat 31900 Kampar Perak Darul Ridzuan.

Tuan.

KELULUSAN BERSYARAT UNTUK MENJALANKAN KAJIAN DI SEKOLAH – SEKOLAH DI NEGERI PERAK DI BAWAH JABATAN PENDIDIKAN NEGERI PERAK

Sukacita perkara di atas dirujuk dan surat dari Kementerian Pendidikan Malaysia, Bahagian Perancangan dan Penyelidikan Dasar Pendidikan, Ruj.: KPM.600-3/2/3-eras(1734), bertarikh 4 Disember 2018 adalah berkaiatan.

- 2. Schubungan dengan itu, dimaklumkan bahawa Jabatan Pendidikan Negeri Perak tiada halangan untuk membenarkan pihak tuan menjalankan kajian "Factors Affecting Secondary School Teachers" Willingness to Deliver Sexual Health Education In Malaysia" dengan syarat kelulusan ini bergantung kepada pertimbangan pentadbiran sekolah dan pengutipan data terhad kepada guru sahaja serta mematuhui syarat-syarat berikut:-
 - Pihak tuan perlu mendapatkan kebenaran terlebih dahulu daripada Pegawai Pendidikan Daerah dan Pengetua sekolah untuk menggunakan sampel kajian;
 - 2.2 Kajian yang dijalankan hendaklah tidak mengganggu proses pengajaran dan pembelajaran yang telah ditetapkan oleh pihak sekolah;
 - 2.3 Pihak tuan bertanggungjawab menjaga keselamatan dan kebajikan guru-guru yang terlibat dalam kajian ini;
 - 2.4 Pihak tuan hendaklah bertanggungjawab menanggung semua kos kajian;
 - 2.5 Guru-guru/ murid tidak boleh dipaksa terlibat dengan kajian ini;



Appendix F: Turnitin Report

FYP 2			
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