

# Teachers' Readiness, Perception and Challenges Towards the Implementation of Sex Education among Private Kindergarten in Malaysia

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## ARTICLE INFO

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## ABSTRACT

This study attempted to explore the preparation, perceptions, and problems of teachers about the introduction of sex education in Malaysian private kindergartens. Previous research has provided reassurance that educators have been crucial to the accomplishment of early childhood sexuality education initiatives. Many studies conducted locally and in Asia have shown that the execution of this program at the private kindergarten level remained unclear because of a lack of training and restricted access to materials related to sexuality. To bridge the gap, a study was carried out to learn about the preparation, perspective, and difficulties faced by Malaysian private kindergarten instructors when it comes to early sex education. As research participants, 102 qualified private kindergarten instructors from the Negeri Terengganu regions were chosen. Content analysis was employed to extract data from the survey questionnaire. Findings have revealed that the respondents showed that they are ready to implement sex education in their private kindergartens. The analysis has also expressed that teacher's perception of sex education in the context of attitudes and knowledge is at a normal level. Besides that, the analysis also detected that private teachers' kindergartens faced a few challenges in implementing sex education in their institutions. The results of this study should have consequences for improving the data that supports the present sex education programs in terms of teacher preparedness, perception, and improvement problems.

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## 1. Introduction

Within social science, the concept of sexuality can be interpreted in a multitude of ways. Reproductive and genital conduct was seen to embody the biological notion of sexuality; it was frequently mentioned as a component of hygiene (Welbourne-Moglia & Moglia, 1989). However, this viewpoint has also broadened to include interactive, cognitive, emotional, and social elements that teach children how to engage with others safely and respectfully since the World Health Organization (2006) advocated for a more inclusive definition of sex education. To put it succinctly, sexuality has permeated every aspect of human existence from conception to death. However, sexuality is seen as taboo in Malaysia, where it is a contentious subject (Yeong et al., 2021)

Due to the diverse activities that children and teenagers engage in; various social phenomena have occurred within the Malaysian community in recent times. Nonetheless, since kids are frequently seen as the nation's future generations, people from all walks of life pay attention to what they do. According to the data from the Social Welfare Department, 5,779 incidences of child sexual abuse were reported between 2010 and 2015, or

963 cases annually on average (Berita Harian Online, 2017, October 6). According to data provided by the Royal Malaysian Police (PDRM), there were 2,759 occurrences of rape, 412 cases of incest, 1,423 cases of homicide, and 422 other offenses involving victims who were younger than 18 in 2015 and 2016 (Eshak & Zain, 2019)

In the latter half of the 20th century, the Malaysian government started to pay attention to sex education. According to data in 2017, the Ministry of Education (MOE) once included sex education in the curriculum for secondary schools starting 1989, and then for primary schools starting 1994. MOE integrated this program into a number of courses, including science, biology, theological and moral studies, as well as health and physical education, rather than creating a separate subject called sexuality education. The term "sexuality" had a bad reputation among the general public, it was discovered when Sexuality Education was introduced between 2003 and 2005. As a result, since December 20, 2006, the term Pendidikan Kesehatan Reproduksi dan Sosial (PEERS) has been utilized and classified under Physical Fitness and Health Education. Since 2011, PEERS has also been taught as a separate subject (Yeong et al., 2021).

Enhancing and enhancing young people's capacity to make deliberate choices regarding their relationships, sexual orientation, and general mental and physical health is the aim of sex education. Sex education has the effect of discouraging children and teenagers from engaging in sexual activity. Furthermore, sex education can help people acquire the information and abilities needed to make the best decisions for themselves when it comes to sex and relationships, according to Planned Parenthood (2022). Providing top-notch instruction on a variety of topics related to sex and sexuality is known as "sex education." It looks at values and ideas related to those topics and helps develop the skills needed to manage one's own sexual health as well as navigate relationships with others, the community, and oneself. Sex education can happen in classrooms, at home, in public places, or online.

### *1.1 Background of Study*

The importance of implementing sex education in school-based at an early age of students is looking at the statistic from World Health Organization (WHO) state that 10–40% of young, unmarried girls between the ages of 13 and 19 had unwanted pregnancies. The World Health Organization (WHO) reports that the prevalence of young premarital sex varies by region. Studies show that between two and eleven percent of Asian women had sex by the time they were eighteen. Twelve to forty-four percent of Latin American women and forty-five to fifty-two percent of sub-Saharan African women had gotten married by the age of sixteen. Furthermore, studies show that between 24 and 75% of Asian men under the age of 18 have engaged in sexual activity (Lodz et al., 2019).

The study summarizing the five years of the child protection goal program's execution the years 2011 to 2015 reveals that child sexual abuse offenses, such as child sexual rape, account for 70% of all incidents of child abuse. It is significant because the abuse victim is a very young child, and many people, including family members, have abused children. To provide the essential self-defense against the risks of being abducted, threatened, raped, sexually abused, or killed, among other things, that can happen to children, parents, and educators must collaborate closely. It is the capacity to apply knowledge to recognize and know how to handle challenging circumstances and risky circumstances that also happen to be safe (Nguyen Thi Ut & Huynh Tan, 2020).

A few earlier research was carried out in Malaysia to determine the frequency of sexual activity and associated risk factors. 8.3% of teenagers nationally reported ever having sex before the age of 18, according to the Global School-based Student Health (GSHS) study, which was carried out among school-aged students throughout all of Malaysia in 2012. Additionally, prior research conducted in 2001 in Negeri Sembilan, Malaysia, by Lee LK, et al. revealed that the occurrence was 5.4% and that it was more common in men than in women (Lodz et al., 2019).

### *1.2 Problem Statement*

Teenage irresponsible sexual behavior is a serious public health issue. 50–58% of teenagers in the US between the ages of 15 and 19 engage in sexual activity. According to Landry, Darroch, Singh, and Higgins in 2003, the average age at which a male loses their virginity is 16.9, while the average age for a girl does so at 17.4. According to Kohler in 2008, 47% of teenagers with STDs reported using condoms during their most recent sexual encounter, according to data from the National Survey of Family Growth. Over a million teenage pregnancies take place each year, with 75% of them being unplanned stated by Henshaw, 1998; cited in Blake et al. 2003. Despite making up 25% of the population that is sexually active, teenagers account for 50% of all new reports of sexually transmitted infections (STIs) as quoted in Kohler et al. in 2008 (Jeannette, W, 2011). The World Health Organization (WHO) has defined sexual health as a state of physical, emotional, mental,

and social well-being. Respect and positivity are essential when discussing sexual health, and these attitudes should be used in both family and community settings.

Also, recent studies in Spain showed the shortcomings effectiveness of sex education among school students when the students get access to information through social networks and pornography. These careless actions may lead to early sexual behavior. There is never a satisfactory solution when it comes to the proper environment for sex education in schools. The question of whether or not to teach sex education is a topic that is often debated in schools. This unsolved problem could lead to increased statistics of youngsters having sexual intercourse at a young age stated by Plaza-del-Pino et al in 2021. In addition, past research stated that to gain more information about this topic, future researchers should be adopting both qualitative and quantitative methodologies using longitudinal designs (Leung, H., Shek, D., Leung, E., & Shek, E, 2019).

According to Royal Malaysian Police Department figures published in Wahab & Mat Nor (2018), child sexual abuse cases were registered from 2010 to May 2017 with an average of 3176 instances each year. The amount of study on the sexual preferences of Malaysian teenagers is lacking, and the research that has been done has been shown to be inconsistent (Yeong et al., 2021).

Next, a study from Jas Laile Suzana Jaafar in 2005 found that 43% of respondents (all from the Malay community) began going on dates when they were just 13 to 15 years old and that 35% of them began kissing and cuddling their partners when they were just 16 to 17 years old. According to the study, 44% of teens first learned about sex via their peers, followed by 35% by viewing DVDs and 27% by reading pornographic books. This raises the question of whether or not schools are crucial in educating those children about sex education. found that 43% of respondents (all from the Malay community) began going on dates when they were just 13 to 15 years old and that 35% of them began kissing and cuddling their partners when they were just 16 to 17 years old. According to the study, 44% of teens first learned about sex via their peers, followed by 35% by viewing DVDs and 27% by reading pornographic books. This raises the question of whether or not schools are crucial in educating those children about sex education. Why are those youngsters more prone to engage in illicit sex before getting married? The primary cause is a lack of knowledge about the reproductive system and how to avoid becoming pregnant, which leads to a desire for abortion or worse (Talib et al., 2012).

According to a study by Mutalip & Mohamed (2012), the main factor leading to the emergence of undesired instances is a lack of precise understanding about sexual and reproductive health. Sex education is still a taboo subject in Malaysian society. Teens lack the proper channels to seek help, so it's possible that they haven't gotten any formal or informal instruction about sex. This is consistent with an unpublished study that found 46% of sexually active male youths and 33% of female teens did not get a formal education on contraception before having their first sex.

The Malaysian government started to pay attention to sex education in the late 1900s. According to Syahirah and Dina in 2017, the Ministry of Education (MOE) formerly included sex education in the curriculum for secondary schools starting in 1989, and then for elementary schools beginning in 1994. MOE incorporated this curriculum into several courses, including science, biology, theological and moral studies, and health and physical education, rather than creating a separate subject called sexuality education (Yeong et al., 2021).

In 2019, Eshak & Zain said that because of problems including insufficient funding and teacher preparation, the introduction of sex education in preschools remains unclear. This outcome demonstrates that the Ministry of Education has already included a sex education module in the curriculum. The researcher didn't find any present research that shows a module on sex education that is implemented in private kindergartens (Yeong et al., 2021). The World Bank's collection of development indicators, assembled from officially recognized sources, states that the percentage of students enrolled in pre-primary education in private institutions (%) in Malaysia was recorded at 50.53% in 2019. Other sources inform that as many as 7,702 private kindergartens were registered with 383,829 enrollments between 2016 to 2018. (MOE - Quick Facts Malaysia education statistics, KPM).

According to recent reports, the first step towards implementing a nationwide sex education program is the introduction of a pilot program named "Social and Reproductive Health Education" (SRHE) in a few Malaysian primary and secondary schools. Nevertheless, the future implementation of this initiative has been muddled by the inconsistent remarks made by several individuals in positions of policymaking. It appears that several current problems and obstacles that have not been thoroughly investigated in public data are impeding the implementation of national sex education in Malaysia (Khalaf et al., 2014).

### 1.3 Research Objectives

- i. To identify the level of teachers' readiness toward teaching sex education among private kindergartens in Malaysia.
- ii. To explore the level of teachers' perception toward teaching sex education among private kindergartens in Malaysia.
- iii. To investigate the level of teachers' challenges toward teaching sex education among private kindergartens in Malaysia.
- iv. To identify the differences between teacher's readiness, perception, and challenges in implementing sex education at rural and urban kindergartens.

### 1.5 Research Questions

- i. What is the level of teachers' readiness toward teaching sex education among private kindergartens in Malaysia?
- ii. What is the level of teachers' perception toward teaching sex education among private kindergartens in Malaysia?
- iii. What is the level of teachers' challenges toward teaching sex education among private kindergartens in Malaysia?
- iv. What is the differences between teacher's readiness, perception, and challenges in implementing sex education at rural and urban kindergartens?

## 2. Literature Review

### 2.1 Sex Education

Sex education is one of the things that Muslims believe needs to be taught, especially by parents, according to Nasih Ulwan. It must now be discussed honestly; it is no longer forbidden. Administering a basic education in adult syaria (halal and haram) aims to introduce students to the meaning of life in that context. Sex education can be imparted by a continual approach to teaching, raising awareness, and being honest about sex and lust in a way that is suitable. By using a phased approach, Islamic morality will be implemented, and the spiral of sin would be stopped. Abdullah Nasih Ulwan established the pre-puberty period using the teachings of the Quran and the Prophet Muhammad's (pbuh) sunnah, which included lowering one's gaze, seeking permission, abiding by syaria law, and being aware of the indications of puberty. Youngsters are also taught not to gaze at anything that could arouse their sexual excitement. Preparing adolescence with moral character is the aim (Alim & Khalil, 2023).

According to Fahmi in 2016, WHO survey on sex education found that sex education can minimize or avoid unsafe sexual behavior, which also implies less disease transmission via free sex. Proper sex education must integrate human rights components as well as cultural and religious beliefs to be a moral and moral education. Sex education in Indonesia is still a contentious issue, with many members of society refusing to accept sex education at home or school. The influence may be felt everywhere, including the choice of Western culture shown in films or videos, which frequently depict open sex life among teens. This is not just due to addiction, but also to the sense that sexual intercourse is already commonplace. As a result, sex education should be an integral aspect of the school curriculum (Chairilisyah, D.,2019).

In 2019, the World Health Organization stated that sexual health is essential to an individual's overall health and well-being, the health and well-being of couples and families, and the social and economic development of nations. When viewed favorably, sexual health necessitates a positive and respectful attitude toward sexuality and sexual relationships, as well as the ability to have joyful and safe sexual encounters devoid of compulsion, prejudice, and violence. The capacity of men and women to attain sexual health and well-being is dependent on their access to complete, high-quality information about sex and sexuality, their understanding of the dangers they may encounter, and their vulnerability to the negative effects of unprotected sexual activity, as well as living in an environment that validates and encourages sexual health.

In the last ten years, governments from numerous low- and middle-income nations have collaborated with national and international specialists to create CSE curricula that are tailored to the individual needs of the classroom. Teachers are in a good position to impart this important knowledge since they are experienced in creating developmentally appropriate learning experiences (UNESCO, 2018). However, little is known about how these curricula are put into practice in classrooms, including the subjects covered, the resources available, the readiness of the teachers, the techniques of instruction, whether or not the material satisfies the needs of

the students, and the difficulties that both teachers and students encounter. Prior research has examined the national contexts for CSE implementation through document reviews and in-depth interviews with stakeholders; however, these studies have not examined CSE implementation at the school level (Keogh et al., 2020).

## *2.2 Teacher Perception*

It is crucial to remember that for children and young adults with disabilities who spend most of their time in special education institutions, their in-service instructors are sometimes the main available source of sexual knowledge. Beyond views against sexual education, multiple worldwide studies show that instructors are increasingly hesitant to offer sexual education to children with intellectual impairments, arguing that those responsible for sexual education in this group should be carers and parents. According to Povilaitienė & Radzevičienė in 2013, most teachers have a negative attitude toward the concept that people with modest cognitive impairments may build their own families. According to the same survey, instructors selected parents or relatives of people with disabilities as those responsible for educating them about relationships.

Teachers' uneasiness while teaching sexual education to children with intellectual impairments may influence the children's education. As a result, discovering one's own sexuality in the absence of direction from key adults may raise the likelihood of abusive relationships, sexually transmitted illnesses, and even undesired pregnancy. Both children's mental difficulties and a lack of understanding about sexuality have been highlighted as potential explanations for the incidence of these dangers stated by Boehning in 2006. Hosseinkhanzadeh in 2012 investigated the views of Iranian parents and instructors about the sexual education of persons with intellectual disabilities. Sixty-four percent of instructors believed that sex education should be required. Sixty-eight percent of instructors believed that individuals with disabilities had the right to build their own families, but only after going through multiple genetic counseling sessions, which should be mandated for those with intellectual impairments (Ionescu et al., 2019).

Maia and colleagues in 2015 studied the teachers' perspectives on sexuality and sexual education of children with intellectual impairments in descriptive research of 451 instructors. It was shown that 94% of instructors were aware of their pupils' sexuality, with 37.5% having good and 53.8% having negative attitudes about the topic. Although 87.8% of instructors thought they could contribute to impaired students' sexual education, they believed it was important to prepare for the activities either on their own (39.9%) or with school and family help (24.4%). So, while some of them are eager for conversation and believe that interaction with kids is vital, the majority of them are stressed and claim they have difficulty discussing sexuality with students with intellectual impairments. According to recent research, sexual education is a critical component that helps the harmonious development of people with intellectual impairments. As a result, teachers' perspectives and attitudes on the problem are vital to study, as they are viewed as intermediaries in conveying and consolidating the knowledge that students are exposed to in order for them to finally have a healthy sex life. Following a study of past studies, one may infer that teaching staff views toward sexual education of people with disabilities are typically positive, despite certain negative aspects of the issue (Ionescu et al., 2019).

It is critical to deliver sexual education with confidence and efficacy. The form of delivery, as well as the professors who teach, are important factors in the success of this type of module. According to current research, sexual education is widely acceptable independent of delivery method, however, it is preferable to be included within religious or moral education themes. This is undoubtedly a wonderful strategy since by learning religion and sexual education at the same time, kids are exposed to a deeper knowledge of sexuality concerning their religious faith (Mutalip & Mohamed, 2012)

According to Jaafar and Lee in 2009, there are differing perceptions of sex education among teachers and students. According to the findings, 53.6% of instructors believe that the substance of sexual material in books is sufficient for children to comprehend the subject. However, 58.2% of them indicated that the material provided in the book does not cover all of the crucial points. These results are critical since they are associated with sexual misbehavior among Malaysian teens and adults. According to the study and conclusions of UNESCO (2009) and Malaysia, there are various elements that must be considered seriously. For example, while designing a sexuality education program, it is critical to include all of the following components: information on the negative impacts of HIV, AIDS, STD, STI, intercourse, reproduction, birth control, and high-risk sexual behavior (Talib et al., 2012).

### 2.3 Teacher Readiness

There has been a great deal of study on the effectiveness of sex education, specifically on the impact of sex education on the sexual behavior of teens. The most recent study on this was conducted by UNESCO (2009), which included 87 different types of research from across the world, with the following nations participating: 29 from poor countries, 47 from the United States, and 11 from other industrialized countries, including European countries. All of the participating nations have a systematic sexuality education curriculum that includes a variety of issues such as HIV, STD, STI, birth control, and sexual intercourse. 70% of this instruction is delivered in schools, with the remaining 30% delivered in community centers and clinics (Talib et al., 2012).

Preschool teachers who attend courses and briefings offered by the State Education Department and the District Education Office have a desire in terms of the attitude are interested in PEERS teaching. PEERS education is one method of protecting children against sexual abuse and other forms of abuse. This increases instructors' enthusiasm for and propensity to execute the PEERS program in the classroom. In terms of attitude regarding the teaching of sex education to youngsters, a total of 37 participants (82.2%) agree or strongly agree. Another variable finding indicates that preschool teachers are mentally prepared and not embarrassed to reveal the name of the sexual organ to youngsters. In terms of motivation, emotion, and psychology, this sense of comfort is one of the aspects influencing the teacher's willingness. 34 participants (75.5%) agreed or strongly agreed that they were psychologically prepared to engage in PEERS teaching activities with children (Eshak & Zain, 2019).

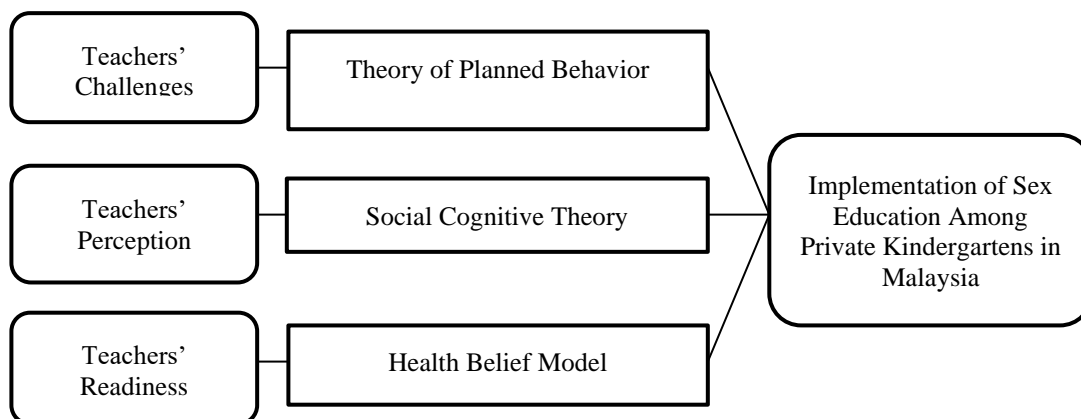
The conclusion of this study, that study's findings, preschool instructors are eager to apply PEERS instruction in the classroom. Preschoolers are shown to be prepared in terms of interest, mind, and physicality, as well as in terms of teaching materials when it comes to teaching sexuality education to preschoolers. The results of this feedback also assist researchers in developing PEERS training programs for preschool teachers that are more robust in terms of their preparation to teach sex education.

Based on the interview session, which revealed that instructors mostly transmit sexual education information in the form of boundaries and reminders, the findings indicate that these teachers are prepared to execute sex education. They concurred that children were routinely provided with appropriate guidance to help them deal with sexuality issues that arose in the preschools. Apart from the unofficial means of verbally communicating sexual education, it has been shown that young children would divulge their sexual details to their peers. Peer sharing in this context means that a child makes sure their friends know the boundaries when they interact (Yeong et al., 2021).

Past research has stated the government has assigned the National Population and Family Development Board Malaysia (NPFDB) or Lembaga Pembangunan Penduduk dan Keluarga Negara (LPPKN) with planning and provide out-of-school sexuality education to the public. This community-based sexuality education was formerly known as Reproductive, Social, and Health Education (Pendidikan Kesehatan Reproduksi dan Sosial) (PKRS). However, the Policy and Action Plan for National Reproductive Health Education and Social Education was renamed PEKERTI Policy later in 2012. The goals of the PEKERTI Policy are to enhance community awareness, develop skills, increase research and development, and improve the efficacy of reproductive health and social education (Razali et al., 2017)

PROSTAR (Program Sihat Tanpa AIDS untuk Remaja) is a Ministry of Health (MOH) health and community-based statewide program based on the principle of "By Youth, Through Youth, and For Youth [Oleh Remaja, Melalui Remaja, Untuk Remaja]". Young people aged 13 to 25 are involved in the program and are taught to be Peer Counselors [Pembimbing Rakan Sebaya]. The Ministry of Health created the PROSTAR Youth Training Module Manual (Latihan Remaja Harapan PROSTAR) modules on STD and HIV/AIDS prevention. This module covers subjects such as healthy living, assertiveness skills, interpersonal relationships, valuing one's own body, and positive behavioral change, in addition to STDs and HIV/AIDS education.

#### 2.4 Theoretical Framework



**Figure 1.** Table of theoretical framework

**Health Belief Model-** This model assumes that a person's willingness to change depends on how seriously they take the possibility of a health issue and how likely they are to be able to mitigate that risk on their own. The Health Belief Model is used to draw students' attention to four key areas: perceived benefits (beliefs about the relative efficacy of behaviors that can reduce the threat), perceived severity (feelings about the relative seriousness and consequences of the risk), and perceived barriers (possibly negative aspects of a protective factor or risk reduction measure). This paradigm places a strong emphasis on decision-making abilities, threat assessment, self-efficacy, and personal aspirations.

**Social Cognitive Theory-** This theory assumes that individual knowledge, abilities, attitudes, interpersonal connections, and environmental factors constantly interact to shape behaviour. The majority of sex education programmes focus on cognitive learning, yet behaviour cannot be changed by knowledge alone. Programmes for sexuality education that apply social cognitive theory include practice in behavioural skills and positive role modelling of appropriate sexual behaviour. Students can increase their self-efficacy—the conviction that they can alter their behavior—by developing new abilities through practice and modeling. A popular activity in sexuality education that utilizes the Social Cognitive Theory is a role-play where players practice and exhibit strategies to resist pressure to engage in unprotected sex.

**Theory of Planned Behavior-** According to the theory of planned behavior, an individual's intentions to carry out a behavior can be predicted based on their attitudes towards the behavior, their feeling of control over the behavior, and subjective standards around the behavior. The previous Theory of Reasoned Action is expanded upon by the Theory of Planned Behavior. Higher levels of intention to practice health-promoting behaviors are the outcome of sex education curricula that emphasize the development of favorable attitudes towards healthy sexual behaviors and social acceptance of these healthy behaviors. Using the Theory of Planned Behavior, curricula acknowledge that attitudes are influenced by people's ideas about the potential repercussions of a behavior or action, while also taking the significance of the final result into account and addressing the formation of these attitudes and beliefs. People's decisions concerning perceived personal control are influenced by the existence or absence of specific conditions, which can either make the behavior easier or difficult to carry out.

#### 2.5 Conceptual Framework

##### **Independent Variable (IV)**

Teachers' Readiness, Perceptions, and Challenge

→

##### **Dependant Variable (DV)**

Implementation of Sex Education among Private Kindergartens

**Figure 2.** The conceptual framework used in the study

Figure 2 shows the conceptual framework that is constructed from the past literature review used to summarize the concept or variable involved in this study. This graphic illustration established the association between Teachers' Readiness, Perceptions, Challenges, and Implementation of Sex Education among Private Kindergartens. The independent variable (IV) used in this study is Teachers' Perceptions, Readiness, and Challenges while the dependent variable (DV) is the Implementation of Sex Education among Private

Kindergartens. Figure 2 shows the purposes of this study which are: 1) to find out the level of teachers' readiness toward teaching sex education among private kindergartens in Malaysia, 2) the level of teachers' perception toward teaching sex education among private kindergartens in Malaysia, 3) level of teachers' challenges toward teaching sex education among private kindergartens in Malaysia.

To support the variables in this study, several theories have been selected to align with the research study variable. For aligning variable teacher readiness, the researcher could be embedded with the *Health Belief Model*. This model shows that teachers are people that willing to implement sex education for their kids in the kindergartens and it shows how seriously the teacher take the responsibility to educate students about consequences of learning sex education. The next variable is teacher's perception by using theory of *Social Cognitive Theory*. This theory state that teachers could make any assumption based on their knowledge or coming from their environmental surrounding. The teachers could have any judgmental toward implementation of sex education amongst the kindergarten's students. And the lastly, *Theory of Planned Behavior*. Based on the understanding of this theory, the theory state that teachers can't predict what are the behavior of the students or the parents toward implementing sex education at the kindergartens. Teacher could take that as one of the challenges in order to delivered critical topic in the classroom.

### 3. Method

The Method section describes in detail how the study was conducted, including conceptual and operational definitions of the variables used in the study, Different types of studies will rely on different methodologies; however, a complete description of the methods used enables the reader to evaluate the appropriateness of your methods and the reliability and the validity of your results, It also permits experienced investigators to replicate the study, If your manuscript is an update of an ongoing or earlier study and the method has been published in detail elsewhere, you may refer the reader to that source and simply give a brief synopsis of the method in this section.

#### 3.1 Research Design

According to Chua (2016), whether the research findings address the research questions will depend on the research design and methodology. The use of the appropriate study design is necessary to prevent the validity of the results.

The quantitative approach was used in this investigation. The use of quantitative methods allows for the collection of numerical data and the ability to generalize across samples (Babbie, 2010). In addition, Fraenkel et al. (2012) claimed that using a quantitative approach could aid the researcher in figuring out how the variables in this study relate to one another. As a result, the researcher has chosen to use surveys as the major means of gathering primary data. The researcher planned to gather data from a large number of individuals for this study on some common variables, hence the survey method of data collecting was used. The information gathered would be primary information because the respondents themselves would have provided it.

In the context of this study, a survey was useful considering that the researcher would like to study the implementation, readiness, and perception toward teaching sex education in private kindergartens. The survey would help the researcher to identify how far the implementation of sex education is in private kindergartens. Besides that, it was also beneficial in helping the researcher determine the readiness level among teachers in teaching sex education. In addition, the researcher would also be able to find out the perspective of teachers in teaching sex education in private kindergartens.

#### 3.2 Population

A research population is generally a large collection of individuals or objects that is the main focus of a scientific query. This study was directed to the group of interest which was teachers who were teaching in private kindergartens in Terengganu. The total number of private kindergartens as in December 2022 was 130 kindergartens. The data has been generated directly from Malaysian Ministry of Education in 2023. However, due to the large size of the population, the researcher could not test every individual in the population because it was too time-consuming. This explains why the researcher relied on sampling techniques (Research Unit (MOE), 2024)

#### 3.3 Sampling Procedure

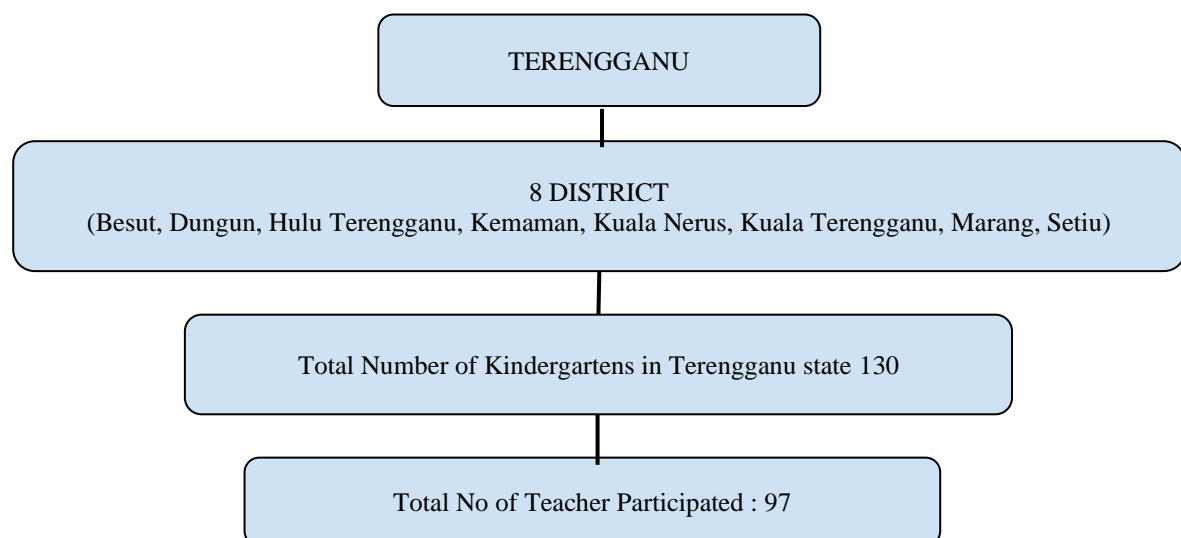
The importance of sampling implies the significance of stratifying the selected group to indicate the similarity to reach the objective of the study. For a quantitative study, a probability sampling technique is required to ensure the sample's representativeness and generalizability of the results to the target population (Acharya et al., 2013). The study's specific sampling as the targeted group employed only works in private kindergartens. To meet all of the requirements for inclusion in this analysis, this study used one step of sampling which is

different sampling technique. The practice of selecting a set of participants as responders based on particular qualities. The subject who lacks the attribute will not be chosen. Terengganu state has eight districts, and each district has been chosen. All instructors in Terengganu state have an equal chance of being chosen, as long as they match the research criteria for inclusion and exclusion. There were 130 private kindergartens in Terengganu for the chosen. Despite this, estimated sampling based on Krejcie and Morgan's (1970) sample size is only 97 schools in Terengganu state are chosen.

**Table 1.** Inclusion criteria of population and sample for the study

<i>Table for Determining Sample Size of a Known Population</i>									
N	S	N	S	N	S	N	S	N	S
10	10	100	80	280	162	800	260	2800	338
15	14	110	86	290	165	850	265	3000	341
20	19	120	92	300	169	900	269	3500	346
25	24	130	97	320	175	950	274	4000	351
30	28	140	103	340	181	1000	278	4500	354
35	32	150	108	360	186	1100	285	5000	357
40	36	160	113	380	191	1200	291	6000	361
45	40	170	118	400	196	1300	297	7000	364
50	44	180	123	420	201	1400	302	8000	367
55	48	190	127	440	205	1500	306	9000	368
60	52	200	132	460	210	1600	310	10000	370
65	56	210	136	480	214	1700	313	15000	375
70	59	220	140	500	217	1800	317	20000	377
75	63	230	144	550	226	1900	320	30000	379
80	66	240	148	600	234	2000	322	40000	380
85	70	250	152	650	242	2200	327	50000	381
90	73	260	155	700	248	2400	331	75000	382
95	76	270	159	750	254	2600	335	1000000	384

*Note: N is Population Size; S is Sample Size* *Source: Krejcie & Morgan, 1970*



**Figure 3.** Krejcie and Morgan (1970) sample size determination table.

According to Figure 3 above, we can see that it is the inclusion criteria of this study. There are 8 districts in Terengganu state and inclusion criteria in the research is those teachers are teaching and working permanently or partially in private kindergartens. Those teachers also need to have an experience in teaching kids/students in private kindergarten within one years. And also, those teachers are teaching in one of the districts in Negeri Terengganu.

### 3.4 Study Area and Duration of the Study

The study was done with private kindergarten teachers from the Terengganu area. The data was collected during a three-month period, from August 2023 to January 2024. Subject information was gathered and evaluated during this time period. The duration of the research had no effect on the final results.

### 3.5 Research Instrumentation

For this research, to obtain data and information desired, the researcher used questionnaires as a primary tool. Teachers from the 8 districts selected are required to answer and complete the questionnaires.

The first adaption questionnaire is from Eshak & Zain (2019) in research on The Readiness of Preschool Teachers in Terms of the Implementation of the Peers Day@ Preschool Program. This adaption is for teacher readiness variable and this variable only represents one section that includes 10 items to be answered.

The second adaption questionnaire from Kasonde (2013) from his research on the Perception of teachers of sexuality education in secondary schools in Gaborone, Botswana. This variable has been divided into two sections and the first section is teacher attitudes with 8 items in it. The second section is teachers' knowledge on implementing sex education with 6 items in it.

The final piece of information is a questionnaire adaptation from Eisenberg et al. (2013). This variable is contained in a single section that has ten questions.

### 3.6 Content Validity

The face and content validity of the current study had been assessed by a panel of three experts (DF1, DF2 & DL) associated with the context of the curriculum of early childhood education with years of experience in the related discipline (Table 2). Items using a 5-point scale 1= Strongly Disagree/ 2=Disagree/ 3=Slightly Disagree / 4= Slightly Agree/ 5= Agree/. The level of agreement among experts was determined by calculating the Content Validity Index (CVI) for each individual item and the combined rating for the forty-two items based on the proportion of experts with a rating of 3 to 4.

With three or fewer experts, a value of 0.78 for the validity index for each item (I-CVI) is regarded as a suitable presentation of the universal score, and a value of .80 or higher for the entire content of the overall scale (S-CVI) is acceptable. According to Table II, all items had a CVI of 1.00 (greater than 0.78) and total item content of 1.00 (greater than 0.80), resulting in the retention of all forty-two items (Shi et al., 2012).

### 3.7 Data collection procedure

Following faculty consent, the researcher will contact teachers, explain the goal of the study to the respondents, and present the questionnaire to the respondents. Participants will complete all of the questionnaire parts. Data will be gathered in order to do data analysis. The researcher collected data for this study from 97 private kindergarten teachers in Terengganu state. The survey was delivered via Google Forms with links over WhatsApp ad Email when needed because all locations were relatively far from the researcher's location. This survey will last two weeks before the data is gathered.

### 3.8 Data Analyses

**Table 2.** List of Research Questions and Data Analysis Techniques

Research Question	Statistic	Data Analysis Technique
<b>RQ1</b> What is the level of teachers' readiness toward teaching sex education among private kindergartens in Malaysia?	Descriptive Statistic	Quantitative: 1. Mean 2. Standard Deviation
<b>RQ2</b> What is the level of teachers' perception in the context of attitude and knowledge toward teaching sex education among private kindergartens in Malaysia?	Descriptive Statistic	Quantitative: 1. Mean 2. Standard Deviation

<b>RQ3</b> What is the level of teachers' challenges toward teaching sex education among private kindergartens in Malaysia?	Descriptive Statistic	Quantitative: 1. Mean 2. Standard Deviation
<b>RQ4</b> There is no significant difference among teachers' readiness, perception and challenges towards the implementation of sex education at rural and urban kindergartens in Malaysia.	One-way multivariate analysis of variance (MANOVA)	Quantitative 1. Mean 2. Standard Deviation 3. Comparison between

**RH<sup>0</sup>****4. Results and Discussion***4.1 Demographic Findings*

4.1.1 To identify private kindergarten teacher background based on demographic data.

Generally, the demographic characteristics of all participants are shown in Table 3. The total number of all participants was 100 from 8 districts in Terengganu. All these participants fulfilled the criteria in this research. This study was restricted to teachers from selected private kindergartens in Terengganu district only

**Table 3.** The Demographic data of the Respondents (N=100)

		Frequency	Percent
Gender	Male	5	4.9
	Female	97	95.1
	Total	102	100.0
Age	20-25	45	44.1
	26-30	40	39.2
	31-36	9	8.8
	36 and above	8	7.8
	Total	102	100.0
Qualification	Masters	5	4.9
	Degree	55	53.9
	Diploma	42	41.2
	Total	102	100.0
Year of Service	1-5	81	79.4
	6-10	13	12.7
	11-15	4	3.9
	16 and above	4	3.9
	Total	102	100.0
Ethnic/Race	Malay	98	96.1
	Chinese	1	1.0
	Others	3	2.9
	Total	102	100.0
Religion	Islam	101	99.0
	Buddha	1	1.0
	Total	102	100.0
Location	Rural	36	35.3

Urban	66	64.7
Total	102	100.0

Most participants were female with 97 (95.1%) and the rest were male with 5 (4.9%). The age of most of the participants is in the range of 20-25 years old with 45 (44.1.0%), 26-30 years old 40 (39.2%), 31-36 9 (8.8%), and the lowest in the range 36 and above with 8 (7.8%). Most participants have bachelor's degrees with 55 (53.9%) and only 5 (4.9%) have Master's Degrees and graduated with a Diploma with 42 (41.2%) has teaching experience at a private kindergarten in Negeri Terengganu. Most teachers who have service in private kindergartens were 1-5 years with 81 (79.4%), 6-10 years with 13 (12.7%), 11-15 years 4 (3.9%), and lastly 16 years above with 4 (3.9%). These private kindergarten teachers are mostly from Malay 98 (96.1%) followed by Chinese with 1 (1.0%) and others with 3 (2.9%). Negeri Terengganu are commonly stated by Muslim people and with that 101 (99%), with only 1 (1%) Buddhists answered this survey. The last demographic group is location with only 36 (35.3%) from rural areas and 66 (64.7%) from urban areas.

#### 4.2 Research Objective 1

To identify the level of teachers' readiness toward teaching sex education among private kindergartens in Malaysia.

The researcher's initial goal was to determine the level of preparedness among Malaysian private kindergarten teachers to teach sex education. It is particularly targeted at the 102 teachers in the districts of Negeri Terengganu who were chosen. Along with determining which high question is asked most frequently, the researcher also sought to find out how many kindergarten teachers are prepared to teach sex education. This section's ten questions will demonstrate the teacher's level of readiness.

**Table 4.** Teacher's Readiness in Implementing Sex Education

Item	Categories	Frequency	Percent %
SB1: I am ready to teach the reproductive health and social (PEERS) education topics.	Strongly Disagree	3	2.9
	Disagree	1	1.0
	Slightly Disagree	6	5.9
	Slightly Agree	31	30.4
	Agree	<b>61</b>	<b>59.8</b>
	Total	102	100.0
SB2: I am comfortable teaching girls' and boys' body parts to students.	Strongly Disagree	2	2.0
	Disagree	2	2.0
	Slightly Disagree	11	10.8
	Slightly Agree	36	35.3
	Agree	<b>51</b>	<b>50.0</b>
	Total	102	100.0
SB3: I am comfortable teaching about safe touch, unsafe touch and uncomfortable touch.	Strongly Disagree	1	1.0
	Slightly Disagree	5	4.9

	Slightly Agree	26	25.5
	Agree	<b>70</b>	<b>68.6</b>
	Total	102	100.0
SB4: I am enjoyed conducting doing the teaching activities held during the reproductive health and social education (PEERS) subject.	Strongly Disagree	1	1.0
	Disagree	1	1.0
	Slightly Disagree	5	4.9
	Slightly Agree	37	36.3
	Agree	<b>58</b>	<b>56.9</b>
	Total	102	100.0
SB5: I use a variety of teaching styles to expose students to reproductive health and social education (PEERS) in the classroom.	Strongly Disagree	1	1.0
	Disagree	2	2.0
	Slightly Disagree	4	3.9
	Slightly Agree	34	33.3
	Agree	<b>61</b>	<b>59.8</b>
	Total	102	100.0
SB6: I am comfortable teaching reproductive health and social (PEERS) education topics.	Strongly Disagree	1	1.0
	Disagree	1	1.0
	Slightly Disagree	8	7.8
	Slightly Agree	34	33.3
	Agree	<b>58</b>	<b>56.9</b>
	Total	102	100.0
SB7: I am not embarrassed to explain on how to properly keep the genitals clean to the students.	Disagree	3	2.9
	Slightly Disagree	7	6.9
	Slightly Agree	36	35.3
	Agree	<b>56</b>	<b>54.9</b>

	Total	102	100.0
SB8: I agree that there should be a module related to Sexuality Education for Children, teachers, and parents as a guideline on the understanding of sexuality education among students.	Disagree	2	2.0
	Slightly Disagree	1	1.0
	Slightly Agree	26	25.5
	Agree	<b>73</b>	<b>71.6</b>
	Total	102	100.0
SB9: I agree that reproductive and social health education (PEERS) should be made a regular subject.	Disagree	2	2.0
	Slightly Disagree	4	3.9
	Slightly Agree	33	32.4
	Agree	<b>63</b>	<b>61.8</b>
	Total	102	100.0
SB10: I hope to be able to teach reproductive and social health education (PEERS) according to a module that suits the needs of my students.	Disagree	3	2.9
	Slightly Disagree	2	2.0
	Slightly Agree	24	23.5
	Agree	<b>73</b>	<b>71.6</b>
	Total	102	100.0

Based on the data, the researcher can identify for the first objective that most of these private kindergarten teachers were fully ready to implement sex education in their institutions. This can be supported by the score given in the survey. From 102 teachers who answered the survey. The highest means for SB1 is 61 (59.8%) said that they are ready to teach reproductive health and social (PEERS) education topics, followed by SB2 with the highest score 51 (50%) said they are comfortable in teaching girls, and boy's body for their students. SB3 that stated the teachers are also comfortable in teaching about safe touch, unsafe touch, and uncomfortable touch to their kids with the highest score of 70 (68.6%). In the SB4 score, 58 (65.9%) teachers are enjoyed in conducting teaching activities during PEERS subject. SB5 shows that almost half the teachers in this survey agree that they may use a variety of teaching styles to expose PEERS in the classroom with 61 (59.8%). Continue with SB6, the teachers are comfortable in teaching PEERS education topics in the classroom with a score of 58 (56.9%). For SB7, half of the teachers feel not embarrassed to explain how to keep the genitals clean to the student with a score of 56 (54.9%). Followed with SB8 shows that teachers agree that there should be a module that is related to sex education for children, parents, and especially for teachers as a guideline in understanding sex education with the highest score 73 (71.6%). The last second question in section B is SB9 where teachers agree that PEERS should made a regular subject in the syllabus in kindergartens with the highest score 63 (61.8%). For the last question, SB10 show that teachers agree if they are able to teach PEERS according to the module that suits the needs of their students with a score of 73 (71.6%). All the questions in

section B show a positive trend that proves those private kindergarten teachers were ready to implement sex education in their institutions. They also agree if they are supplied with good material as a guideline in teaching adequately.

#### 4.3 Research Objective 2

To explore the level of teachers' perception in context of attitude and knowledge toward teaching sex education among private kindergartens in Malaysia.

The researcher's secondary goal was to ascertain how private kindergarten teachers in Malaysia felt about instructing sex education. It is particularly targeted at the 102 private kindergarten instructors in the districts of Terengganu. By responding to both sections in section C, the researcher also aimed to determine which is the most commonly highest score to understand those teachers' perceptions about implementing sex education in their institutions.

**Table 5.** Attitude of teachers toward sex education

Item	Categories	Frequency	Percent
SC1a. Reproductive and social health education (PEERS) are suitable for my students.	Strongly Disagree	1	1.0
	Disagree	3	2.9
	Slightly Disagree	2	2.0
	Slightly Agree	38	37.3
	Agree	<b>58</b>	<b>56.9</b>
Total		102	100.0
SC2a. I am willing to teach reproductive health and social education (PEERS).	Strongly Disagree	2	2.0
	Disagree	1	1.0
	Slightly Disagree	5	4.9
	Slightly Agree	33	32.4
	Agree	<b>61</b>	<b>59.8</b>
Total		102	100.0
SC3a. I think reproductive health and social education (PEERS) is important for children.	Strongly Disagree	2	2.0
	Disagree	1	1.0
	Slightly Disagree	2	2.0
	Slightly Agree	21	20.6
	Agree	<b>76</b>	<b>74.5</b>
Total		102	100.0
	Strongly Disagree	2	2.0
	Disagree	1	1.0

SC4a. Teachers are responsible for introducing reproductive and social health education (PEERS) to children.	Slightly Disagree	4	3.9
	Slightly Agree	24	23.5
	Agree	<b>71</b>	<b>69.6</b>
	Total	102	100.0
	Strongly Disagree	1	1.0
SC5a. Reproductive and social health education (PEERS) should be implemented in my kindergarten	Disagree	2	2.0
	Slightly Disagree	4	3.9
	Slightly Agree	34	33.3
	Agree	<b>61</b>	<b>59.8</b>
	Total	102	100.0
SC6a. Reproductive and social health education (PEERS) needs to be expanded at the kindergarten level.	Strongly Disagree	2	2.0
	Disagree	1	1.0
	Slightly Disagree	5	4.9
	Slightly Agree	31	30.4
	Agree	<b>63</b>	<b>61.8</b>
SC7a. Teachers should be at the forefront of teaching sexual education	Strongly Disagree	1	1.0
	Disagree	2	2.0
	Slightly Disagree	6	5.9
	Slightly Agree	36	35.3
	Agree	<b>57</b>	<b>55.9</b>
SC8a. Reproductive and social health education (PEERS) promotes close proximity among students.	Strongly Disagree	18	17.6
	Disagree	11	10.8
	Slightly Disagree	21	20.6
	Slightly Agree	23	22.5
	Agree	<b>29</b>	<b>28.4</b>
Total	102	100.0	

For the second objective, the researcher wanted to identify the level of teachers' perceptions in terms of their attitude toward teaching sex education among private kindergartens in Malaysia. It is more specific to 102 teachers who are selected in Terengganu. The researcher also wanted to acknowledge this private kindergarten teachers' perception toward implementing sex education in their institutions since all the teachers are from East Coast states that are famous for taboo things. From the score, the researcher has found that the majority of teachers' attitudes toward sex education are at a good level. From the first question SC1a with the highest score of 58 (56.9%) shows that those teachers agree that PEERS are suitable for their students in the private kindergartens followed by SC2a, those teachers also stated that they are willing to teach PEERS in the classroom with highest score at 61 (59.8%). For SC3a, those teachers agreed that PEERS is an important thing for their kids in the kindergartens with a score of 76 (74.5%). SC4a stated teachers are the persons who are responsible for introducing PEERS to the children and the score for this question is 71 (69.6%). For SC5a, those teachers agreed that PEERS should be implemented in their institutions with a score of 61 (59.8%). The next is, SC6a with a score of 63 (61.8%) those teachers agreed that PEERS needs to be expanded at the kindergarten level, especially for private kindergartens. SC7a score at 57 (55.9%) teachers have agreed that they are at the forefront of teaching sex education in the kindergartens. The last question is SC8a, those teachers also agreed that PEERS promotes proximity among students with a score of 29 (28.4%).

**Table 6.** Knowledge of teachers about sex education in schools.

Item	Categories	Frequency	Percent
1. Reproductive health and social education (PEERS) delayed sexual debut among school-aged students.	Strongly Disagree	4	3.9
	Disagree	7	6.9
	Slightly Disagree	22	21.6
	Slightly Agree	<b>35</b>	<b>34.3</b>
	Agree	34	33.3
Total		102	100.0
2. Reproductive and social health education (PEERS) increases knowledge about HIV/AIDS among children.	Strongly Disagree	3	2.9
	Disagree	1	1.0
	Slightly Disagree	3	2.9
	Slightly Agree	<b>38</b>	<b>37.3</b>
	Agree	57	55.9
Total		102	100.0
3. Reproductive and social health education (PEERS) promotes condom use.	Strongly Disagree	14	13.7
	Disagree	12	11.8
	Slightly Disagree	<b>28</b>	<b>27.5</b>
	Slightly Agree	24	23.5
	Agree	24	23.5
Total		102	100.0

4. Reproductive and social health education (PEERS) is part of my training as a teacher.	Strongly Disagree	3	2.9
	Disagree	6	5.9
	Slightly Disagree	11	10.8
	Slightly Agree	37	36.3
	Agree	<b>45</b>	<b>44.1</b>
Total		102	100.0
5. Reproductive and social health education (PEERS) needs to be streamlined in the private kindergarten curriculum.	Strongly Disagree	3	2.9
	Disagree	1	1.0
	Slightly Disagree	7	6.9
	Slightly Agree	40	39.2
	Agree	<b>51</b>	<b>50.0</b>
Total		102	100.0
6. Reproductive health and social education (PEERS) will prevent child sexual harassment.	Strongly Disagree	3	2.9
	Disagree	4	3.9
	Slightly Disagree	10	9.8
	Slightly Agree	29	28.4
	Agree	<b>56</b>	<b>54.9</b>
Total		102	100.0

From the score, the researcher has found that the majority of teachers' perception in terms of their knowledge is at a general level since there is a question that those teachers are contradictory with their perspective. From question SC1b with the highest score at 35 (34.3%), teachers slightly agreed that PEERS delayed sexual debut among school-aged students. Followed by SC2b those teachers think that PEERS will increase knowledge about HIV/AIDS among the children with a score of 57 (55.9%). SC3b has a balanced agreement among the teachers that the score shows 24 (23.5%) in both scales of agree and slightly agree that PEERS promotes condom use among the kids. The fourth question is SC4b with a score of 45 (44.1%) teachers agreed PEERS is a part of their training as a teacher. SC5b shows that teachers need to be streamlined in the private kindergarten's curriculum with a score of 51 (50%). The last question is SC6b shows that teacher is agreed that PEERS will prevent child sexual harassment with score of 56 (54.9%).

#### 4.4 Research Objective 3

To investigate the level of teachers' challenges toward teaching sex education among private kindergartens in Malaysia.

The third goal of the study was to determine how difficult it is for teachers in Malaysian private kindergartens to teach sex education. It is particularly targeted at the 102 private kindergarten instructors in the districts of Negeri Terengganu. By responding to ten questions in section D, the researcher also aimed to determine which is the most commonly highest score to interpret those instructor hurdles towards adopting sex education in their institutions.

**Table 7.** Teacher's Challenges in Implementing Sex Education

Item	Categories	Frequency	Percent
1. Lack of time.	Strongly Disagree	3	2.9
	Disagree	2	2.0
	Slightly Disagree	17	16.7
	Slightly Agree	40	39.2
	Agree	40	39.2
	Total	102	100.0
2. Lack of financial resources.	Strongly Disagree	2	2.0
	Disagree	10	9.8
	Slightly Disagree	17	16.7
	Slightly Agree	45	44.1
	Agree	28	27.5
	Total	102	100.0
3. Lack of curriculum.	Disagree	4	3.9
	Slightly Disagree	11	10.8
	Slightly Agree	46	45.1
	Agree	41	40.2
	Total	102	100.0

4. Concerns about parents' responses.	Disagree	3	2.9
	Slightly Disagree	7	6.9
	Slightly Agree	29	28.4
	Agree	63	61.8
	Total	102	100.0
5. Concerns about students' responses.	Strongly Disagree	1	1.0
	Disagree	2	2.0
	Slightly Disagree	9	8.8
	Slightly Agree	39	38.2
	Agree	51	50.0
Total	102	100.0	
6. Concerns about responses from the administration.	Strongly Disagree	1	1.0
	Disagree	5	4.9
	Slightly Disagree	10	9.8
	Slightly Agree	44	43.1
	Agree	42	41.2
Total	102	100.0	
7. School or community policy.	Strongly Disagree	2	2.0
	Disagree	2	2.0
	Slightly Disagree	14	13.7

	Slightly Agree	42	41.2
	Agree	42	41.2
	Total	102	100.0
8. Restrictions/bans on teaching certain topics.	Strongly Disagree	4	3.9
	Disagree	8	7.8
	Slightly Disagree	14	13.7
	Slightly Agree	40	39.2
	Agree	36	35.3
	Total	102	100.0
9. Lack of participation from students.	Strongly Disagree	8	7.8
	Disagree	4	3.9
	Slightly Disagree	11	10.8
	Slightly Agree	50	49.0
	Agree	29	28.4
	Total	102	100.0
10. Disruption from students.	Strongly Disagree	6	5.9
	Disagree	5	4.9
	Slightly Disagree	15	14.7
	Slightly Agree	39	38.2
	Agree	37	36.3
	Total	102	100.0

From the result above, the researcher has found that the majority of teachers' challenges is not at critical level. The researcher can see the data from SD1 those teachers agree and slightly agree that the challenges come from the lack of time with a score of 40 (39.2%). The highest score in SD2 is 45 (44.1%) teachers slightly agree that they lack financial resources. Followed with SD3 shows that teachers slightly agree that sex education lacks curriculum with a score of 46 (45.1%). SD4 anyways shows that most of the teachers agreed that they were concerned about parents' response with a score of 63 (61.8%) and SD5 also shows that teachers are concerned with student response with a score of 51 (50%). From SD6, the researcher can identify that those teachers slightly agree that they are also concerned about the response from the administration with a score of 44 (43.1%). The next challenge is from SD7 which shows teachers agree and slightly agree that the challenges are also coming from school or community policy with a score of 42 (41.2%). SD8 shows that teachers slightly agree that the challenge is from restrictions/bans on teaching certain topics. Those teachers also slightly agree that the challenge is coming from a lack of participation from the students 50 (49%) and challenge from distribution by the students with a score of 39 (38.2%).

4.5 Research Objective 4 (Inferential Analysis)

4.3.4.1 To identify the differences between teachers' readiness, perception, and challenges in implementing sex education at private kindergartens.

4.3.4.2 Research Hypothesis

H<sup>01</sup>: There is no significant difference among teachers' readiness, perception, and challenges towards the implementation of sex education at rural and urban kindergartens in Malaysia.

For the fourth objective and the research hypothesis, the researcher wanted to identify the differences between teacher's readiness, perception, and challenges toward implementing sex education at private kindergartens. From this view, it may be revealed if there are any differences between readiness, perception, and challenges that come from different areas which are rural and urban.

One Way Multivariate analysis of variance (MANOVA) is used because there is one independent variable which is the location and three dependent variables which are the teacher's readiness, perception and challenges. Overall, there is no significant difference of teacher's readiness, perception, and challenges toward implementing sex education at private kindergartens in Malaysia.

In scientific literature, statistical errors are prevalent, with approximately 50% of published works containing at least one error. The assumption that the data has a normal or Gaussian distribution and that the populations from which the samples are drawn are normally distributed is the foundation for many statistical techniques, including correlation, regression, t-tests, analysis of variance, and parametric tests (Ghasemi & Zahediasl, 2012). After the normalcy tests were performed in this study, all of the results fell within the acceptable range, with no extreme outliers observed. Thus, the N= 102 total sample size was kept. The normalized findings are presented in table 9.

**Table 8.** Tests of Normality

	Kolmogorov-Smirnov <sup>a</sup>			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Location	.416	102	.000	.604	102	.000

**Table 9.** Levene's Test of Equality of Error Variances<sup>a</sup> of teacher readiness, perception and challenges in a different location

	F	df1	df2	Sig.
Teacher Readiness	3.066	1	100	.083
Teacher Perception	.491	1	100	.485
Teacher Challenges	4.810	1	100	.031

Table 9 shows that all the variables are not significant which the value >0.05. it also means that this test already fulfilled the homogeneity variance rule.

**Table 10.** Descriptive statistic of teacher's readiness, perception and challenges

Item	Location	Mean	Std. Deviation	N
Teacher Readiness	Rural	45.7222	3.92509	36
	Urban	44.6061	2.86022	66
	Total	45.0000	3.30017	102
Teacher Perception	Rural	59.5000	4.51347	36
	Urban	59.0909	4.76761	66
	Total	59.2353	4.66114	102
Teacher Challenges	Rural	40.1667	7.22496	36
	Urban	41.6212	5.72650	66
	Total	41.1078	6.29931	102

Table 10 shows the distribution of descriptive statistics of teacher readiness, perception, and challenges toward implementing sex education at private kindergartens in Malaysia based on location specifically in Negeri Terengganu. According to the table, it shows that teacher readiness in rural areas shows the highest knowledge score ( $M = 59.5$ ) followed by urban areas ( $M = 44.7$ ). On the other hand, teacher perception scores show the same scores which are the rural area ( $M = 60$ ) and urban area also ( $M = 60$ ). From the last element, teachers' challenges showed a rural area score ( $M = 40.1$ ) and an urban area score ( $M = 42$ ). The data shows that even though the teachers come from rural areas in the East Coast state, it is not one of the barriers for them to acknowledge the importance of sex education for early childhood especially in private kindergartens.

**Table 11.** Multivariate of Teacher's Readiness, Perception and Challenges Toward Implementing Sex Education at Private Kindergartens

		Value	F	Hypothesis df	Error df	Sig.	Partial Eta Squared
Location	Pillai's Trace	.040	1.372 <sup>b</sup>	3.000	98.000	.256	.040
	Wilks' Lambda	.960	1.372 <sup>b</sup>	3.000	98.000	.256	.040
	Hotelling's Trace	.042	1.372 <sup>b</sup>	3.000	98.000	.256	.040
	<b>Roy's Largest Root</b>	<b>.042</b>	<b>1.372<sup>b</sup></b>	<b>3.000</b>	<b>98.000</b>	<b>.256</b>	<b>.040</b>

The result of the MANOVA yielded that there are not significant effect of location that all the teachers coming from (Rural and Urban) on combined dependents variable, Roy's Largest root = .042,  $F(3, 98) = 1.372$ ,  $p = .256$ , partial eta squared = .040.

**Table 12.** Tests of Between-Subjects Effects

Source	Dependent Variable	df	Mean Square	F	Sig.	Partial Eta Squared
Location	Teacher Readiness	1	29.020	2.710	.103	.026
	Teacher Perception	1	3.898	.178	.674	.002
	Teacher Challenges	1	49.283	1.245	.267	.012
Error	Teacher Readiness	100	10.710			
	Teacher Perception	100	21.905			
	Teacher Challenges	100	39.585			

a. R Squared = .026 (Adjusted R Squared = .017)

The analysis of the dependent variables includes showed an effect for different location that influence teachers' readiness, perception and challenges. From teacher readiness ( $F(1, 100) = 2.71$ ,  $p = .103$ , partial  $\eta^2 = .002$ , teacher perception ( $F(1, 100) = .178$ ,  $p = .674$  partial  $\eta^2 = .002$ ), and lastly teacher challenges ( $F(1, 100) = 1.245$ ,  $p = .267$ ,

partial  $n_2 = .012$ ). All three individual variables show there is no significant differences in implementing sex education in private kindergartens.

**Table 13.** Mean and Standard Deviation of Teachers' readiness, perception, and challenges from different location

Location		Teacher Readiness	Teacher Perception	Teacher Challenges
Rural	Mean	<b>45.7222</b>	<b>59.5000</b>	<b>40.1667</b>
	N	36	36	36
	Std. Deviation	3.92509	4.51347	7.22496
Urban	Mean	<b>44.6061</b>	<b>59.0909</b>	<b>41.6212</b>
	N	66	66	66
	Std. Deviation	2.86022	4.76761	5.72650
Total	Mean	45.0000	59.2353	41.1078
	N	102	102	102
	Std. Deviation	3.30017	4.66114	6.29931

**Table 14.** Comparison between readiness, perception, and challenges with a different location

Dependent Variable	(I) Location	(J) Location	Mean Difference (I-J)	Std. Error	Sig <sup>a</sup>
Teacher Readiness	Rural	Urban	1.116	.678	.103
	Urban	Rural	-1.116	.678	.103
Teacher Perception	Rural	Urban	.409	.970	.674
	Urban	Rural	-.409	.970	.674
Teacher Challenges	Rural	Urban	-1.455	1.304	.267
	Urban	Rural	1.455	1.304	.267

The standard deviations and group and overall means for each dependent variable are shown in this table 14, one after the other. A pairwise comparison of the mean using LSD revealed there are no significant differences in teacher readiness scores between Rural and Urban areas. More specifically, the readiness score in Urban areas ( $M= 45.72$ ,  $SD= 3.92$ ) as compared to the Rural areas ( $M= 44.7$ ,  $SD= 2.9$ ).

A multivariate analysis of variance (MANOVA) was used to compare three sections on three dependent measures which are teacher readiness, teacher perception, and teacher challenges. Rural areas were generally higher rated on two dependent variables teacher readiness and teacher perception ( $M=45.72$ ,  $M=59.50$ ) followed by urban areas ( $M=44.60$ ,  $M=59.05$ ). The score in comparison shows one dependent measure which is teacher challenges showing urban areas score higher rates compared to rural areas with ( $M=41.62$ ,  $M=40.16$ ) for ease of choosing a teacher readiness, perception, and challenges in implementing sex education in private kindergartens. The multivariate test if the differences among the three dependent groups were not significant. Pillai's Trace = .040,  $F(3,98) = 1.372$ ,  $p=.001$ , partial  $n_2=.040$ .

According to the result, the null hypothesis for teacher readiness and teacher challenges is accepted as there is a significant difference between the level of teacher readiness and teacher challenges in implementing sex education in private kindergartens. By the result also, we reject the null hypothesis for teacher perception in implementing sex education in private kindergartens. The highest teacher readiness score means is from Rural areas ( $M=45.72$ ), teacher challenges are from Urban areas ( $M= 41.62$ ) and from teacher's perception, there is just a slight difference from Urban ( $M= 59.09$ ) and Rural areas ( $M= 59.90$ ).

#### 4.6 Summary and Discussion of Findings

This study intended to investigate the teacher's readiness, perception, and challenges towards implementing sex education in private kindergartens in Malaysia. Data of this study was collected through questionnaires

were constructed based on past research and were previously verified by selected subject-matter experts for face validity, construction, criteria, content validity and assessed for reliability Fariduddin & Siau (2021). The first adaption questionnaire that will answer the first variable in this research is an adaption from Kasonde (2013) from his research on the Perception of teachers of sexuality education in secondary schools in Gaborone, Botswana. The second adaption questionnaire is from Eshak & Zain (2019) in research on The Readiness of Preschool Teachers in Terms of the Implementation of the Peers Day@ Preschool Program. Lastly, an adaptation of the questionnaire adapted by Eisenberg et al. (2013), and then modified to satisfy the study's requirements. The questionnaire was distributed through an online platform to selected 102 private kindergartens in Negeri Terengganu, Terengganu. Data collected was analyzed by using SPSS 25 and descriptive analysis was used to analyze four research question

#### 4.6.1 What is the level of teachers' readiness toward teaching sex education among private kindergartens in Malaysia?

There were 10 questions have been analyzed to determine the level of teacher readiness amongst private kindergarten teachers in Negeri Terengganu, Malaysia which were presented in Appendix A. According to the data, only 61 (59.8%) agree, and 31 (30.4%) slightly agree that they are ready to implement sex education in their private kindergartens. Those teachers who believe there should be a competent module to be applied in teaching sex education for children in kindergartens as fixed guidelines for parents and especially for teachers who going to give a lesson. Also, those teacher hopes that they can teach reproductive and social health education according to the module that suits students' needs. But there is something that needs to be worried about when there is still teacher who are not ready to implement sex education in their institution.

The data show, there are 3 (2.9%) strongly disagree with implementing sex education in their institution. Even if the numbers are still small amount but the consequences of it could have a big impact. This can be supported by past research that state, research indicates that children who receive insufficient sex education may be more vulnerable to sexual abuse (Abdulahmeed, 2013). The annual rise in occurrences of sexual child abuse in Malaysia could be partly attributed to the lack of sex education and public misperception. According to data from the Royal Malaysian Police Department, which was referenced by Wahab & Mat Nor (2018), there were 3176 incidences of child sexual abuse reported year on average between 2010 and May 2017. According to Finkelhor (1994), children between the ages of 7 and 13 are the most susceptible to sexual assault; more than 20% of children have experienced sexual molestation before the age of 8 (Snyder, 2000). As a result, Yafie (2017) recommends that proper sexuality education be established in accordance with the idea that it can reduce the likelihood that children will become victims of sexual abuse as cited by Yeong et al. (2021). However, since they will undoubtedly become teachers in the future, student instructors must also attend to these matters.

#### 4.6.2 What is the level of teachers' perception toward teaching sex education among private kindergartens in Malaysia?

Generally, private kindergarten teachers' perception toward implanting sex education in their institutions is on level safe. They align with their response to the direct question that has been divided into two sections which are the attitude of teachers toward sex education and knowledge of teachers about sex education in schools. There are 8 questions to find out what are teachers perception in terms of their attitude. Based on the data on teachers' attitudes teachers agree that sex education is important to the children 76 (74.5%), and also in the data shown teachers' attitude that believe it is their responsibility for introducing sex education to the children 71 (69.6%). This data could be supported by past research that state programme providers' attitudes towards the topic of sexuality and disability play a significant role in the execution of Sex Education programmes for individuals with disabilities (McGuire & Bayley, 2011). The literature suggests that people interpret information on this sensitive topic differently based on their personal experiences and views, therefore how these people feel about the subject may affect how the information is disseminated as cited by Ionescu et al. (2019).

The data also shows 6 questions that have been blasted to find out what the teacher's level of knowledge in sex education at school are. A researcher could see that only a small percentage of teachers' perception that denies to implementing sex education at their institutions such as reproductive and social health education (PEERS) are suitable for students, reproductive and social health education (PEERS) should be implemented in kindergarten and teachers should be at the forefront of teaching sexual education with 1 (1.0%). From this data, the researchers could conclude that most of the private kindergarten teachers' perception of implementing sex education in Negeri Terengganu is at a safe spot.

The score also proves that those teachers do not set their mindset that sex education is an unneeded subject that needs to be implemented at a young age. This write could be supported by past research that states the majority of them worry that educating people about sex will pique their curiosity and result in sexual experimentation. Despite the debate around sex education, research studies show that sex education promotes abstinence and gives them the information and skills they need to behave responsibly when it comes to sex. Instead of encouraging sexual activity, it does the opposite as cited by Mutalip & Mohamed (2012).

The data also shown that teacher knowledge is at a good score which is 57 (55.9%) for question reproductive and social health education (PEERS) increases knowledge about HIV/AIDS among children and the second highest score is coming from question reproductive health and social education (PEERS) will prevent child sexual harassment which the score is 56 (54.9%). This is a proof that teachers nowadays are up to date align with new globalisation situation. This could be supported by the past researcher that state there aren't as many studies in Malaysia on preschoolers' sexuality education. Aspects of the study's readiness included the demographics of the teachers, their degree of knowledge, and the subjects that they felt comfortable teaching pre-schoolers as cited by Eshak & Zain (2019).

#### *4.6.3 What is the level of teachers' challenges toward teaching sex education among private kindergartens in Malaysia?*

There are 10 questions that have been applied in order to identify what are exactly teacher's challenges in implementing sex education at their private kindergartens. From this study, the researcher could see that those teachers are facing challenges in the form of responses from the parent's students that show a score 63 (61.8%) and also a high score from the question challenge from students' response when they implement sex education in the classroom. This is a common challenge for teacher since the topic itself is one of the sensitive issues in the country, especially in an east coast state which is Negeri Terengganu.

This kind of issue has been covered in past research, previous research has observed that women's traditional conceptions of gender and sexuality are associated with poor sexual health (Allen & Smith, 2011), as well as lower condom use and sexual assertiveness (Curtin et al., 2011). Similar to this, men are in a position of authority in relationships within the Malaysian community, which is supported by traditional heterosexual gender norms, giving them the upper hand (Doull et al. 2013). According to Khalaf et al. (2014), the impact of this has been enormous in changing Malaysia's sexual culture and resulting in a discourse on sexuality that deviates from the country's conventional standards. The cultural shifts include things like premarital sexual practice rates rising (Ahmadian et al. 2014; Folasayo et al. 2017) and sexual practices starting earlier (Khalaf et al., 2018).

The result also shows just some of the teachers is facing financial challenges which score is 28 (27.5%). From the researcher's perspective, the researcher believes that implementing sex education in private institutions doesn't require a lot of costs since teacher just could implement it by embedding it with current subject.

#### *4.6.4 What are the differences between teacher's readiness, perception, and challenges in implementing sex education at private kindergartens?*

This study found that there a significantly different levels of teacher's readiness, perception, and challenges toward implementing sex education at private kindergartens in Malaysia with different location areas. There are 2 categories of location areas which are rural and urban.

From the data, rural areas have the highest mean score in teacher readiness. Rural seems to have no significant differences in teacher readiness between the other categories. Rural have the highest score and the lowest score in teacher readiness is in urban areas. Rural and urban areas seem to have a significant difference in the dependent variable of teacher's challenges. The mean scores of both rural and urban just are slightly different. The last dependent variable which is teacher's challenges shows there is no significant difference between urban and rural areas. Urban area's mean score is highest compared to the mean score of rural areas.

From the data, it shows that the highest score in the teacher's readiness category is in rural areas which is it is a bit far from the city areas. This study has proof that even though those teachers are living somewhere out of the city. However, they still have the awareness and good motivation to implement sex education for children at a young age. The researcher has found in past research that state there is a dearth of knowledge about sex education, especially in the local context because the term is culturally taboo. The information where the study is being conducted is actually only accessible to secondary school instructors (Jaafar & Lee, 2009; Ihwani et al., 2016). There has been very little research done to investigate preschool teachers' perspectives on sexuality education, as noted by Yeong et al. (2021). This indicates that there is a clear lack of focus when it comes to assessing preschool teachers' level of understanding of sexuality education.

Also, the result shows that there is no highest or lowest score in the teacher's perception in both areas Rural or Urban. The researcher assumes that those teachers who come from Rural or Urban have a good attitude and have a basic knowledge of the needed implementation of sex education for children at private kindergartens. From this data, the researcher can come out with some new data that can support the past research that states there aren't many studies on sex education in the classroom conducted in Malaysia.

According to Jaafar and Lee (2009), instructors and students have differing perspectives on the subject of sex education. According to the report, 53.6% of the teachers said that the books' sexual material is already sufficient for the children to understand. On the other hand, 58.2% of them said that not all of the crucial topics are adequately covered in the book. The significance of these findings lies in their connection to sexual misconduct among Malaysian adults and teenagers. According to UNESCO's (2009) research and findings, there are a number of issues in Malaysia that require careful consideration. For instance, it is crucial to address every aspect of sex education, including the harmful impacts of HIV, AIDS, STDs, STIs, sexual activity, reproduction, birth control, and high-risk sexual behavior.

Also, one of the turns in points of teacher perception that could be changed is when the past study shows a diverse cultures have diverse values and beliefs, which affect how members of those cultures view various challenges. The majority of Malaysian societies tend to keep sexuality-related topics private. Zahra Fazli et al. (2014) claim that parents expect instructors to teach their children about sexuality while ignoring their own responsibilities to do so. Teachers, on the other hand, are hesitant to teach it since it puts them in jeopardy with regard to their personal and professional values (Mchunu, 2007) as cited by Yeong et al. (2021).

## 5. Conclusion

This study has revealed a critical issue that most private kindergartens face which is implementing sex education in their private kindergartens. So many thoughts and challenges that teachers need to overcome that come from the institutions themselves, the community, students, and especially the challenges from students.

In conclusion, providing comprehensive and age-appropriate sex education for children is essential for their overall well-being and development. A well-designed sex education program contributes to the following key outcomes. Sex education can play a crucial role in preventing sexual abuse by educating children about inappropriate behavior, boundaries, and how to recognize and report any form of misconduct. Open discussions about sex education help destigmatize sexuality and reduce feelings of shame or embarrassment around the topic. This, in turn, promotes a more accepting and inclusive societal attitude toward diverse sexualities.

In summary, sex education is a critical component of a child's education, promoting healthy development, informed decision-making, and positive relationships. When implemented with sensitivity, inclusivity, and respect for individual differences, sex education contributes to the overall well-being of children as they navigate their journey into adolescence and adulthood.

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