

INVESTIGATING, DEVELOPING AND
VALIDATING RUBRICS FOR
TEACHER'S SELF-EFFICACY
AND TEACHING COMPETENCY
IN DRUG EDUCATION

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SULTAN IDRIS EDUCATION UNIVERSITY

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ABSTRACT

The objectives of the study were to investigate the Teacher's Self-Efficacy (TSE) and Teaching Competency (TC) of classroom teachers in drug education, to examine whether the TSE and TC are influenced by gender, age, academic qualification, and years of teaching experience, to develop the rubrics for TSE and TC, and to validate the rubrics for TSE and TC in drug education. The methodology used in this study was a mixed-methods approach using the ADDIE Model to develop a rubric. The descriptive statistics and MANOVA were performed on the analysis data with a significant level of .05. There were 389 participants, which consisted of classroom teachers in public secondary schools in Kelantan and educational experts from three public universities in Malaysia. The results of the study showed that classroom teachers had moderately high levels of TSE and TC. Most of them stated that drug education in classroom situations was based on their initiatives and a lack of guidelines for integrating drug topics into the curriculum. The data showed that there were no significant influences of demographic factors such as gender, age, academic qualification, and years of teaching experience on the TSE and TC of teachers in drug education. This study arranged the rubric for a TSE and TC assessment tool based on phases in the ADDIE Model. The rubrics for TSE and TC had been validated and obtained high acceptance rates from experts and classroom teachers. This study also discussed the study's implications and recommendations. In conclusion, the TSE and TC of classroom teachers were needed for drug education in secondary schools in Malaysia. The rubric development of TSE and TC in drug education can evaluate teachers and help them improve their efficacy and competency in integrating drug topics in a teaching-learning situation.



MENYELIDIK, MEMBINA DAN MENGESAHKAN RUBRIK UNTUK EFIKASI DIRI DAN KOMPETENSI PENGAJARAN GURU DALAM PENDIDIKAN DADAH

ABSTRAK

Kajian ini bertujuan menyelidik Efikasi Diri Guru (EDG) dan Kompetensi Pengajaran (KP) guru kelas dalam pendidikan dadah, mengkaji sama ada EDG dan KP dipengaruhi oleh jantina, umur, kelayakan akademik dan tempoh pengalaman mengajar, membina rubrik EDG dan KP, dan menilai rubrik EDG dan KP dalam pendidikan dadah. Metodologi yang digunakan dalam kajian ini ialah pendekatan kaedah campuran dengan menggunakan Model ADDIE untuk membangunkan rubrik. Statistik deskriptif dan MANOVA dilakukan untuk analisis data dengan tahap signifikan .05. Seramai 389 peserta terdiri daripada guru kelas di beberapa sekolah menengah di negeri Kelantan dan pakar pendidikan daripada tiga universiti awam di Malaysia. Hasil kajian menunjukkan bahawa guru kelas mempunyai tahap EDG dan KP ialah sederhana tinggi. Kebanyakan mereka menyatakan bahawa pendidikan dadah dalam situasi bilik darjah adalah berdasarkan inisiatif sendiri dan kekurangan garis panduan untuk mengintegrasikan topik dadah ke dalam kurikulum. Data juga menunjukkan bahawa tidak terdapat pengaruh faktor demografi yang signifikan seperti jantina, umur, kelayakan akademik, dan tempoh pengalaman mengajar terhadap EDG dan KP guru dalam pendidikan dadah. Kajian ini membina rubrik untuk alat penilaian EDG dan KP berdasarkan fasa-fasa dalam Model ADDIE. Rubrik EDG dan KP telah dinilai dan memperoleh kadar penerimaan yang tinggi daripada pakar dan guru kelas. Kajian ini turut membincangkan implikasi dan cadangan kajian yang akan datang. Kesimpulannya, EDG dan KP guru kelas diperlukan untuk pendidikan dadah di sekolah menengah di Malaysia. Rubrik EDG dan KP dalam pendidikan dadah ini boleh menilai guru dan membantu mereka meningkatkan keberkesanan dan kecekapan mereka dalam mengintegrasikan topik dadah semasa proses pengajaran dan pembelajaran berlangsung.

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CHAPTER 1

INTRODUCTION



1.0 Background of the Study



The phenomenon of adolescents involved with drug abuse is a worrying and being serious issue. Literally, the drug is any substance that manipulates the way our body functions mentally, physically and emotionally (Bhat, 2017). In many parts of the world, drug abuse has seen an upsurge among young people since the mid-1990s (Cheung & Cheung, 2019). The phenomenon of substance abuse has become a global issue that carries significant social, economic, and health costs (United Nations Office on Drugs and Crime, 2019). The availability of drugs, cultural and social norms as well as knowledge, and attitude towards drugs are some of the factors that have deeply influenced the global problem (Jiloha, 2017). Other reasons for the spike in drug abuse among adolescents are less information pertaining to serious complications of drug abuse, poor academic achievement, unhealthy home environment, seeking pleasure,





and enhanced cognitive functioning (King et al., 2013; Collins, 2019). In the school context, teachers still face issues with their self-efficacy and teaching competency in drug education. The efforts have been made by both government and non-government organizations (NGOs) to develop strategies to meet the challenges faced by young peoples' rising drug abuse.

Due to the critical case of drug and substance abuse among students, several countries have policies related drug abuse prevention in their school institutions. In New Zealand, information pertaining to drugs and alcohol use in secondary school predominantly resides in government guidelines published by the Ministry of Education (MoEd) and Ministry of Youth Development (MoYD). These guidelines focus on curriculum delivery of alcohol and drug education, as opposed to the proposal of a robust policy framework (Prescott, 2020). The origins of drug education in Ireland take place in both formal and non-formal settings; including, youth work and community settings, and social care settings. Primary and post-primary schools in Ireland are tasked with delivering substance use education to children as part of the Social, Personal and Health Education (SPHE) curriculum, using materials such as 'On My Own Two Feet' and 'The Walk Tall' programs (Darcy, 2020). As rightly pointed out by Ministry of Education of Zambia, interactive teaching strategies should be encouraged to prevent students from abusing drugs because they stimulate active participation among learners in the classroom or group activity. Therefore, they allow for the development of interpersonal competencies (Ndhlovu & Masiye, 2018).

In Malaysia, drug was named as the nation's number one enemy in 1983 and ever since then, the fight against drugs was conducted aggressively by widening the





awareness scope at all age level. Meanwhile education on how to effectively deal with aggressive behavior among adolescents at risk should be emphasized for building positive behavior among adolescents in order to produce potential young generation in the future (Fauziah, Mohamad, Chong, & Manaf, 2012).

The existence of a drug education curriculum has been discussed by scholars for decades. A large body of literature, book, framework, module and governmental policies are available related to drug education (Lundgren et al., 2018; Meehan, 2017; Rashishi et al., 2018). The content of pedagogy in drug abuse prevention among students is more crucial in current years. The drug education curriculum provides a new approach for students in understanding drug consequences. Therefore, it is needed a comprehensive integration strategy between school programs or co-curriculum activities and curriculum in a classroom situation for drug abuse prevention.

Classroom teachers play significant role in teaching learning process at school. They involve directly with students' activities and can be the role models for their students. A study by Djigic and Stojiljkovic (2011) showed that both teachers and students are the most satisfied with the classroom climate which is created by teacher-interactionist. Students' achievements were at its highest when the teachers practiced interactionist style, and at it is lowest when the teachers were interventionists.

The Ministry of Education Malaysia has integrated drug education components into the existing school curricular and has also emphasized the provision of training in drug education to heads of schools, teachers and quality assurance officers through in-service courses. These courses are aimed at creating awareness of the dangers of drug





abuse and its consequences, mobilizing school children to participate and take a leading role in fighting drug and alcohol abuse and increasing teachers' capacity to intervene through counselling and preparation of materials for drug education (KPM, 2018).

Drug prevention education in classroom's teaching-learning can be delivered by integrating topics in several subjects in Malaysian secondary public schools. For instance, on the subject of physical education and health, there is the topic "Healthy lifestyle" for form 4 students. Teachers explain this topic by including material on the dangers of drugs for youth in their classes (Razak, Radzi, Adnan, Ismail, Mohamed, & Fauzee, 2007). On the subject of Bahasa (languages), in the national anti-drugs month, the teacher asked the students to make the essay with the theme/topic related to the dangers of drug abuse for the young generation. Students will try to find the relevant materials and increase their knowledge of the dangers of drugs. In addition, they can also discuss with teachers, and friends, as well as create project-based learning by actively involving students in drug prevention.

The role of teachers in drug education is related to the teachers' self-efficacy and teaching competency to integrate drug abuse in curriculum. The studies related to the quality of drug education for adolescents are performed by teachers in schools of rural or urban areas (Hecht et al., 2018). The drug education curriculum has provided widely statistical data to be able to highlight the main problem in drug use among school students (Marsiglia et al., 2018). Teacher's self-efficacy contains the belief and preparation to deliver the learning materials to the students. Meanwhile Teaching competency of teachers is linked to their ability to teach in the classroom by carrying up the messages of the danger of drug abuse for students. To highlight the effectiveness





of the drug education in Malaysian secondary public school, it is needed to design and develop a rubric. The use of rubric to assess teacher's self-efficacy and teaching competency in teaching learning process in the classroom.

1.1 Problem Statement

The problem of drug abuse among youth increases every year. Based on the data from National Anti-Drug Agency (AADK, 2020), in the last two years there is an increasing number of drug cases among youth (13-39 years old) in Malaysia. The increasing can be seen 18,417 cases in 2018 to 18,986 cases in 2019. Totally, there are 569 (3,01 %) new cases increase numbers of users in a year. The Malaysian government has emphasized that school institutions must be actively involved in drug prevention. The effective components of the drug prevention program in secondary school are as follows: (1) Take into account normative beliefs held by adolescents regarding drug abuse by peers; (2) Strengthens the perception that drug abuse brings negative consequences; (3) Provide life skills such as communication skills, decision-making skills, peer-to-peers skills, and opportunities to practice these skills in real situations; (4) Improve the relationship between parents and school; and (5) Establish and implement a drug free school policy (NADA, 2017).

Drug abuse prevention programs in Malaysian schools have left some questions related to various problems arose, such as: finance, cooperation from school administrators, teachers' commitment, student involvement, and school community in general (Sulaiman, Anor, Othman, & Fahrudin, 2018). Razali and Madon (2016)





emphasized that the role of parents, teachers, schools, and law enforcement authorities in ensuring the reduction of drug addiction is important. In fact, the success or failure of a student to quit drug use is dependent on the strong support of his environment. The drug prevention efforts have been carried out aggressively by some agencies and communities in combating the country's number one enemy. Unfortunately, all of the efforts seem to be still less effective in reducing drug abuse among students (Fauziah et al., 2012; Yusoff, 2015). Moreira, Vóvio, and Micheli (2015) stated that the various challenges presented by the educators in school drug prevention are related to the teachers' personal issues, such as a lack of expertise, lack of appropriate methodologies, and prejudices and moral values related to the topic. This argument is supported by Fook, Sidhu, Lim and Wee (2016) revealing that Malaysian school teachers have lack of knowledge to talk about it in their classroom and school environment.



Public secondary schools have been equipped with drug prevention programs in order to protect the students from becoming drug abuse victims. The responsibility to conduct the drug prevention program making sure that the students are knowledgeable in and aware of the danger of drugs to one's life and future lies on the teachers (Sukor & Hussin, 2019). It means that drug abuse prevention is not only conducted in co-curriculum activities but also implemented by the teachers in teaching-learning process in the classroom. According to Darcy (2020) the activities related to drug abuse prevention among students by the classroom teachers in teaching learning context are known as drug education. The teacher's self-efficacy and teaching competency of subject's teachers are needed in drug education.





For a long time, drug abuse prevention more conducted in co-curricular activities (Mohamad et al., 2018; Nawi et al., 2021). In Malaysian context, drug prevention education is developed in some programs such as: Pintar, Shield, and Tomorrow's Leader (Walid et al., 2021; Jusoh et al., 2023a). This study needs to involve the classroom teachers in context of curriculum to more participate in drug education. Classroom teachers can build a constructive discussion from academic perspective related to the danger of drug abuse for human future.

The teacher factor is very important to implement this strategic plan because they approach students intensively every day (Yusoff, 2015). According to a study by Hussin (2009) on the effectiveness of the Drug Prevention Education Program (PPDa) in schools found that the role of teachers is very important in ensuring the success of this program. Gizyatova (2016) suggested possible ways of enhancing the effectiveness of drug prevention in educational institutions: the development of positive motivation of teachers to implement elements of prevention; qualified pre-service training with the focus on effective prevention techniques; continual education and retraining of both the teachers and the training of staff by means of training courses, workshops; active cooperation of all agencies involved in prevention activities. However, the drug prevention in curriculum context is still lack of research in Malaysia (Ramli et al., 2018; Zin et al., 2019). Drug prevention activities in the school context need to be conducted in co-curriculum and curriculum activities. When it comes to the subject teachers, it needs the efficacy and teaching competency to deliver this matter in teaching learning situation.





Teacher`s self-efficacy in classroom management has been studied for a long time as one of the central points in teaching-learning activities (George et al., 2018; Buzzai et al., 2022; Martínez-Borreguero et al., 2022). Self-efficacy refers to the ability of an individual to assess the level of his/her competence in performing the required actions when dealing with any possible situations. According to the self-efficacy theory, a person easily feels worry when they have low efficacy level as the learning ability, motivation and performance are affected by his or her self-efficacy (Bandura, 1997). When they believe that they will be successful at doing a task they will try to learn and do it but if they do not, they would rather not. Teachers` self-efficacy in drug education can be understood as the teachers` view about their abilities to prevent their students from drug abuse. Based on that, they will manage their teaching-learning activities with a good performance and motivate their students to avoid drug.



Some studies related to teachers` self-efficacy in Malaysia have been conducted (Guoyan et al., 2021; Mahmood et al., 2021; Mansor et al., 2021). The studies show that teachers` self-efficacy in Malaysia are in high level. The issue in this study is that teachers in Malaysia still have problems in drug prevention activities (Amat et al., 2020; Nurmala et al., 2021; Wahab et al., 2021). Some of them have no preparation or readiness to involve in drug abuse prevention program. It can be concluded that efficacy and competency of classroom teachers need to be improved in drug abuse prevention in classroom context.

Teachers` self-efficacy is an important thing in drug abuse program in school because it is related to teachers` personal belief. According to Bhullar (2019), specifically in an educational context, teacher self-efficacy is the teacher`s personal or





self-perceived belief in ability to plan instruction and accomplish instructional objectives. Ability to plan instruction helps to integrate drug abuse prevention messages to the students in the classroom. Several studies have been conducted related to teachers' self-efficacy on drug and substance abuse in school institutions. Teachers with high self-efficacy may help treatment of drug-dependent (Nejad, Sabet, & Borjali, 2017). They motivate students to avoid drug by improving refusal skills among students in curriculum (Choi, Hecht, & Smith, 2017). The role of teachers' self-efficacy in drug education help mindfulness skill of students, improve stress management, and involve peer participation in prevention efforts (Lannin, Guyll, Cornish, Vogel, & Madon, 2019).

The concept of teaching competency focuses on the design and development of actions that are closely related to student development processes such as academic achievement, competency acquisition, social skills, and adaptation to the workforce (Galán, Amilburu & Muñoz, 2012). Teaching competence is related to the acquisition and demonstration of the combined skills needed for teaching students, such as providing explanation regarding subject matter, proficiency in questioning, ability to investigate, explain and convey emotional arguments, time management, feedback in teaching, understanding student psychology, recognizing student behaviour, classroom management, and assessment. Teaching competence means the right way to convey theoretical knowledge, how to apply and hone student skills (Salaberry & Kunitz, 2019; Zukdi et al., 2022).

Yusoff (2015) emphasized that teaching competency of teachers in drug abuse prevention determines the effectiveness drug education program in school. Teacher's





teaching competency for preventing drug misuse in school entails topic knowledge and pedagogical expertise to convey the dangers of drug abuse to students. To include a drug prevention program, Teachers should be able to elaborate their teaching-learning process (Nithyanandam, 2020). In this context, a teacher's skills are required to collaborate with students and other stakeholders to prevent drug and substance abuse in their school. Teachers' competency in drug education is concerning to teachers' abilities and skills to integrate learning topics to drug abuse prevention (Stavroulia et al., 2019). Some studies related to teachers' competency in drug education showed that teacher play significant role in pedagogical content knowledge in drug education (Ellickson, 2020; Ivanich et al., 2020).

The existence of self-efficacy and teaching competency of classroom teachers to deliver learning topics in their classroom related to drug abuse needs to be discussed as an effort to prevent students involved with drug abuse based on teaching-learning approach (Okamoto et al., 2020). Drug education in curriculum context being crucial since classroom teachers have been taking more responsibility in drug abuse prevention.

Malaysia has released the rubrics for teaching learning situation to measure the teachers' competency for every subject (Yaacob & Mahmud, 2019; Jalil et al., 2021; Ung et al., 2021). However, there is no rubric provide to measure the teachers' self-efficacy and teaching competency in drug education. The rubric in this study is to help the government in evaluating the efficacy and competency of classroom teachers in integrating their learning topic in the classroom. In 2015, the Ministry of Education Malaysia has released a rubric for secondary school's curriculum of physical education





and health. There is part of guideline for substance abuse (cigarette, alcohol, and drug) in the rubric. It has three standards developed in the constructs, such as: content standard, learning standard, and achievement standard (KPM, 2015). However, the rubric not measured the teachers' self-efficacy and teaching competency in classroom situation regarding to the drug education. A case study has been conducted by Razak, et al. (2007) in Shah Alam, Selangor. The study focused on students' knowledge to the teaching drug abuse among four level students in Physical Education and Health class. But there is no study to measure the effectiveness the Secondary School Standard Curriculum (KSSM) related to teachers' self-efficacy and competency in drug abuse prevention.

Ministry of Education Malaysia (KPM, 2018) emphasized that the drug prevention education must be integrated in the curriculum, known as Secondary School Standard Curriculum (KSSM). Drug prevention education is not presented as a separate subject, but integrated in certain subjects. The subjects are, Language, Islamic Education, Moral Education, Science, Life Skills Education, as well as Physical Education and Health. The elements of Drug Prevention Education (PPDa) are conveyed through the subjects. Lack of study to measure in what extent the role of teachers integrating drug abuse prevention in their teaching learning process in the classroom. It also leaves some questions about teacher's self-efficacy and teaching competency to teach drug abuse in teaching learning activities. Ministry of Education Malaysia (KPM) has distributed the guideline for the school teachers for teaching drug abuse but it is still not found the rubrics to assess teachers' self-efficacy and competency in using the guideline based on KPM goals.



1.2 The Aim of Study

The aims of study are to investigate, to develop and to validate the rubrics for teacher's self-efficacy and teaching competency in drug education of Malaysian secondary schools.

1.3 Objectives of Study

The objectives of the study are:

1.3.1 To investigate the teachers' self-efficacy of classroom teachers for curbing drug and substance abuse among students of government secondary schools.

1.3.2 To investigate the teaching competency of classroom teachers for curbing drug and substance abuse among students of government secondary schools.

1.3.3 To determine are the teachers' self-efficacy and teaching competency for curbing drug and substance abuse influenced by teacher characteristics classified as gender, age, academic qualification and years of teaching experience.

1.3.4 To develop the rubrics for teachers' self-efficacy and teaching competency for curbing drug and substance abuse among students in government secondary school.

1.3.5 To validate the rubrics for teachers' self-efficacy and teaching competency for curbing drug and substance abuse among students in government secondary school.

1.4 Research Questions

The research questions which guide this study are:

1.4.1 To what extent is the teachers' self-efficacy of classroom teachers for curbing drug and substance abuse among students of government secondary schools?

1.4.2 To what extent is the teaching competency of classroom teachers for curbing drug and substance abuse among students of government secondary schools?

1.4.3 Is there significant influence of teacher characteristics classified as gender, age, academic qualification and years of teaching experience to teachers' self-efficacy and teaching competency for curbing drug and substance abuse among students in government secondary school?

1.4.4 How to develop the rubrics for teachers' self-efficacy and teaching competency

for curbing drug and substance abuse among students in government secondary school?

1.4.5 How to validate the rubrics for teachers' self-efficacy and teaching competency for curbing drug and substance abuse among students in government secondary school?

1.5 Hypothesis

The hypothesis in the study is to answer the research questions number 1.4.3:

Ho1: There is no significant influence of gender in teachers' self-efficacy and teaching competency for curbing drug and substance abuse among students in government secondary school.

Ho2: There is no significant influence of age in teachers' self-efficacy and teaching competency for curbing drug and substance abuse among students in government secondary school.

Ho3: There is no significant influence of teachers' qualification in teachers' self-efficacy and teaching competency for curbing drug and substance abuse among students in government secondary school.

Ho4: There is no significant influence of experience in teachers' self-efficacy and teaching competency for curbing drug and substance abuse among students in government secondary school.

1.6 Conceptual Framework

The conceptual framework of the study can be seen below:

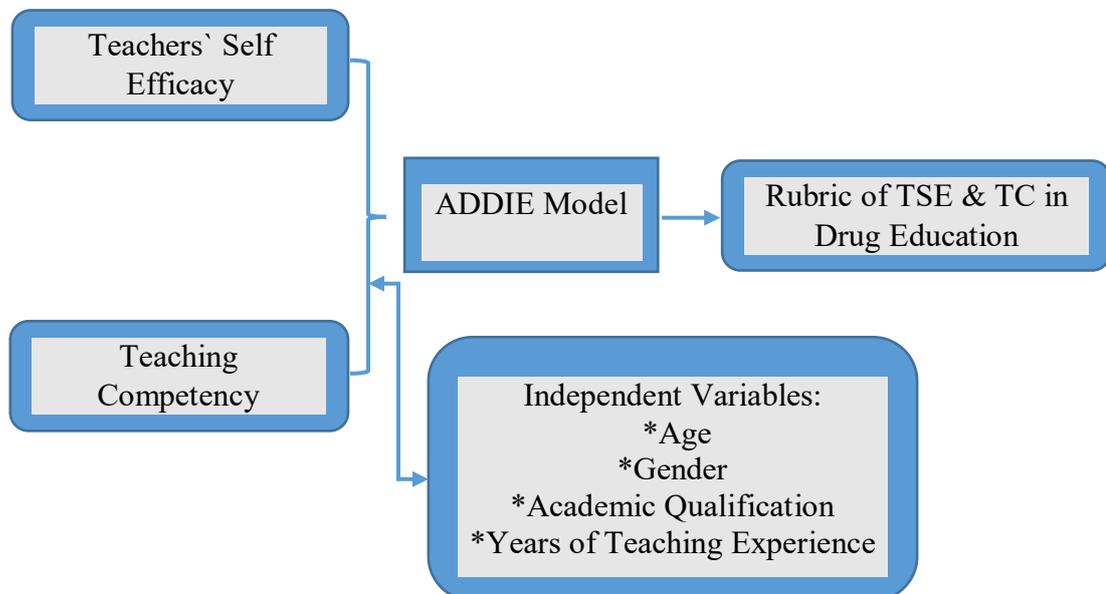


Figure 1.1. Conceptual Framework of the Study

Figure 1.1 describes the conceptual framework of the study in a whole. This study starts from investigating the level of teacher's self-efficacy and teaching competency of secondary school teachers in drug education. After gathering the quantitative and qualitative data, both the data are analysed. Demographic factors of participant are analysed to find out the significant influence of age, gender, academic qualification and years of teaching experience of teachers to their self-efficacy and teaching competency. The next step is rubric development by using ADDIE model that is begun with analysis, design, development, implementation and evaluation phases. The rubric is validated by the experts and practitioners. In the last step the complete rubric of teacher's self-efficacy and teaching competency can be used an assessment tool to measure teacher's performance in drug education.

1.7 The Importance of Study

The importance of the study contributes in some aspects, such as:

1.7.1 New Variables

This study is expected to produce new variables that are worth to elaborate as an effort for curbing drug and substance abuse among students in public secondary schools. The analysis of these variables is expected to provide new knowledge, understanding, and skills to teachers, school administrators, and policy makers in formulating a school model in drug education for classroom learning.



1.7.2 Methodology

This study is expected to contribute to the methodology used to prevent drug and substance abuse among students in public secondary schools. Research systematic procedures in this study provide a space for future researchers to instance, modify, or produce new effective methods in drug education.

1.7.3 Sampling

It is hoped that this study also contributes to participants because they are directly involved as informants and samples in data collection process. It is expected that this study can provide new insights to teachers in implementing self-efficacy and teaching competency in teaching-learning in their classroom as an effort to prevent drug abuse among students.

1.7.4 Finding

It is expected that the findings of the study have contributions to the classroom teachers, school administrators, and government in drug abuse prevention efforts in schools. Especially it can be used by the schools in designing, implementing, and evaluating the teacher's self-efficacy and teaching competency in drug education in teaching-learning in public secondary schools.





1.7.5 New Perspective

The results of this study are also expected to bring up a new perspective among the family, school, and community in preventing child from drug and substance abuse. It is needed collaborative works from all institutions in providing knowledge, supervision and guidance to the younger generation. In addition, the new perspective in this study is highly expected that schools in Malaysia are more aggressively implementing drug education in teaching-learning process in the classroom by integrating the message of drug abuse prevention in learning materials.

1.7.6 Policy



This study is expected to contribute to policy makers in the Ministry of Education Malaysia related to drug prevention education efforts in schools. The Ministry can provide training to teachers in improving their self-efficacy and teaching competence in drug abuse prevention in classroom's teaching learning process. Furthermore, it is hoped that this study contributes to the ministry as a guide in formulating policies and implementation of drug education in secondary schools in Malaysia.





1.8 Limitation of the Study

This study has limitation in some aspects, such as:

1.8.1 Methodology

This study has limitation in its methodological aspects, especially in terms of samples, instruments and study procedures. The samples are chosen small numbers of classroom teachers and limited to only one state in Malaysia, namely Kelantan. The study instruments used are in the form of a questionnaire, interview protocol, and a limited number of rubric frameworks adapted from previous studies. The study procedure also experiences limitation in the aspect of movement problem faced by researcher due to the Covid-19 pandemic that storms the entire world when this study is carried out.

1.8.2 Validity and Reliability

This study is also limited to the validity aspect, which means that it cannot be fully adopted to measure respondents who are in other places. It needs adjustment to the situation and conditions in different studies. In addition, the study is also limited from the aspect of reliability, that the results of the study are not necessarily the same if it is carried out at different places and times.





1.8.3 Research Scope

The scope of the study is also limited because it only takes data collection at schools and is only used in efforts to prevent drug abuse education in schools. The scope of the study is also limited to the aspects of self-efficacy and teaching competency of classroom teachers in preventing drug and substance abuse among secondary school students. However, this study does not explore the knowledge, understanding, and perceptions of students in preventing drug abuse in their schools.

1.9 Research Definition

Some variables in this study have been given the conceptual and operational definition to guide this study:

1.9.1 Investigating

Investigating can be defined quite simply as a systematic fact finding and reporting process (Schutt, 2018; Moortgat, 2020). It is derived from the Latin word *vestigere*, to “track or trace,” and encompasses a patient, step by step inquiry (Bennett & Hess, 2004). Investigation is finding facts; it is akin to research conducted in the academic arena (Gunter & Hertig, 2005). Investigating in this study is a systematic procedure to determine the level of teachers’ self-efficacy and teaching competency in drug education.





1.9.2 Developing

The term “development” has various meanings to different people and can be explained in different contexts (Abuiyada, 2018). According to Pearson (2000), developing involves “An improvement qualitative, quantitative or both - in the use of available resources”. He also asserts that development does not refer to one particular perspective on social, political and economic betterment. Instead, it is a hybrid term for a myriad of strategies adopted for socioeconomic and environment transformation from current states to desired ones. Developing in this study is a way to analysis, design, develop, implement and evaluate the rubric for teachers` self-efficacy and teaching competency in drug education based on ADDIE model.



1.9.3 Validating

Validation refers to internal consistency or a logical problem, whereas verification deals with justification of knowledge claims (Story & Tait, 2019; Sürücü & Maslakçi, 2020). In modeling literature, these terms are swapped, and in this paper we use the terms as used in the modeling literature; i.e., verification refers to internal consistency, whereas validation refers to justification of knowledge claims (Barlas and Carpenter 1990). Validating a design method is a contextual process of demonstrating usefulness with respect to a purpose (Pedersen, Emblemståg, Bailey, Allen, & Mistree, 2000). Validating in this study means to evaluate the rubric for teacher`s self-efficacy and teaching competency based on academics and professionals` justification.





1.9.4 Rubric

The term 'rubric' has varying meanings, and evokes a range of responses from educators (Popham, 1997). A secret scoring sheet, held by the teacher, and only revealed after student work has been marked, is a rubric (Schoepp et al., 2018; Ragupathi & Lee, 2020). An articulation of the standards expected of essays in a particular faculty or department is a 'rubric'. Rubrics can contain detailed grading logic, with numbers and even formulae; alternative they can have no numbers, and be suggestive of broad quality levels (Sadler, 2009). One rubric may use generic quality words (e.g. 'good' or 'below standard') whereas another rubric may explain in detail what quality looks like. Some rubrics eschew words in favour of graphics, ranging from emoji to samples of what work should look like for a particular criterion at a particular standard. Rubric in this study is an assessment tool that can be used to measure the self-efficacy and teaching competency of classroom teachers in drug education in public secondary school.

1.9.5 Teachers` Self-Efficacy

Teacher`s self-efficacy includes a whole set of beliefs about their own ability to teach and to exert a positive effect on student learning (Kozikoglu, 2019; Martin & Mulvihill, 2019). These beliefs are linked to behaviour patterns that teachers show in the classroom, and that establish marked differences in the type of teaching and in the strategies and methodologies used by teachers in their daily practice (Achurra & Villardón, 2013). The measurement of teacher`s self-efficacy is conducted by using





instrument developed by Tschannen-Moran & Hoy (2001). The instrument contains three constructs of teacher's self-efficacy such as: efficacy in student engagement, efficacy in instructional strategies, and efficacy in classroom management. The operational definition of teacher's self-efficacy in this study is the belief of secondary schools' teachers in student engagement, instructional strategies, and classroom management to deliver learning materials to the students related to drug abuse topics.

1.9.6 Teaching Competency

Between theory and practice, innovative teaching has to do with the competency basis which refers to professional skill with ethical balance which covers cognitive, affective and emotional scale (Huda & Teh, 2018; Poro et al., 2019). Related to the teaching competency which teachers should behave, four main competencies obtained to enhance the teaching performance are learning competence, social competency, educational competency, and technological competency (Zhu, et al., 2013; Huda, et al., 2017; Ibrahim et al., 2021). Teaching competency in this study is the ability of teachers to set up teaching planning, curriculum, pedagogical knowledge, learning strategies, classroom environment, and social approach in drug prevention in school.

1.9.7 Drug Education

According to McBride (2003), drug education is interaction between classroom teachers and students by demonstrating drug abuse prevention in curriculum materials





that is expected having impact to students' behaviour, knowledge, and development level in the drug education classroom. The integration of the drug education program into the normal curriculum such as in life skills and health education is needed (O'Malley, 2019; Saravanakumar, 2020). Drug education in this study means that the drug prevention activities are integrated in teaching learning topics by the subject teachers. Teachers can discuss with the students related to drug abuse in curriculum context and persuade students to avoid drug abuse in their daily life.

1.9.8 Drug Prevention Program

Soole et al. (2008) define drug prevention program as the efforts to reduce illicit drug use by involving multiple sessions, more intensive and effective. According to Midford (2010) drug prevention programs consist of classroom based, parenting, school and community and risk and protective factor based. The concept of drug prevention programs is to develop students from the school environment (Bernaras et al., 2019; Bourduge et al., 2022). Drug prevention program in this study is co-curricular activities in the schools to encourage student's awareness to avoid drug abuse by involving all parties such as students, teachers, school counsellors, administrators, parents and community.





1.9.9 Drug Abuse Prevention

Botvin and Griffin (2006) emphasize that drug abuse prevention should be based on intuitive notion of how to prevent drug abuse by promoting personal development of the students. There are some skills that should be improved in drug abuse prevention such as: generic personal skills, social skills and resistance skills which needs information dissemination, affective education and social influence (Schwinn et al., 2018; Sun et al., 2020). Drug abuse prevention in this study is all the efforts by the school, government and communities to prevent young adult involved with drug use.

1.10 Summary



This chapter is part of initial introductions to the background, problem statements, objectives, and importance of study on developing and measuring the effectiveness of rubrics for teachers' self-efficacy and teaching competency in drug education. This chapter is also a platform for academic and practical explorations of the Malaysian school system in implementing drug education for secondary school students. Some finding problems are discussed, formulated, and analyzed to be carried up as a rational thinking framework for further investigation in following chapters.

