International Journal of Pedagogy and Learning Community (IJPLC)
We are Crossref OPEN ACCESS ISSN: (Online -Elektronik)
Publish by: Universitas Negeri Padang
Volume: 2 No.2. May 2025; pp. 65-77
DOI: https://doi.org/10.24036/aw34we27

Validity and Reliability the Questionnaires of Teachers` Self-Efficacy and Teaching Competency in School Drug Education

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Abstract

This study aimed to assess the validity and reliability of two questionnaires used in drug education in Malaysian secondary schools: Teachers' Self-Efficacy (TSE) and Teaching Competency (TC). The questionnaires, originally in English, were translated into Malay for participants, who included 43 secondary school teachers and 9 educational experts from three public universities in Malaysia. The findings showed that items with an acceptance rate above 70% supported the content and construct validity of the instruments. However, experts recommended excluding two TC items for being repetitive and unrelated. The reliability test revealed a Cronbach's alpha of .973 for the TSE and .964 for the TC, indicating both questionnaires' trustworthiness. The study concluded that the TSE and TC are valid and reliable tools for research in drug education. The researchers emphasized the importance of these factors in teachers' drug education effectiveness and recommended that government policy support efforts to enhance teachers' self-efficacy and teaching competency in this area.

Keywords: Drug Prevention, Instrument, Classroom Teachers, Secondary School, Drug Abuse

How to cite: Validity and Reliability the Questionnaires of Teachers` Self-Efficacy and Teaching Competency in School Drug Education. (2025). *International Journal of Pedagogy and Learning Community (IJPLC)*, 2(2). https://doi.org/10.24036/aw34we27

INTRODUCTION

Teachers have the most critical role in keeping students from misusing drugs while they are in school. This is primarily because, as part of the teaching and learning process, teachers have repeated encounters with students, both inside and outside of the classroom (Beaudoin et al., 2018). This is the kind of activity that can be carried out in a variety of different environments. When teachers are responsible for students who are also involved in extracurricular activities, they have the chance to have more regular talks with the students under their care (Velasco et al., 2017). In curricular activities, they need to provide an interactive teaching strategy to increase student engagement in the many learning activities that take place in the classroom (Peklaj, 2015; Vlah et al., 2021). This is done to achieve increased learning, which is the primary motivation for it. These approaches are designed to assist students in gaining new information. Regarding this

obligation, teachers must effectively deliver a message about drug education in schools to help government efforts eradicate drug use in educational institutions. This is done to help students avoid drug addiction (Jia et al., 2018; Nurmala et al., 2020).

Studies that have been carried out in the past have considered the possible role that drug education may play in avoiding the incorporation of drug education into the curricula of schools (Afrassiab & Cox, 2016; Darcy, 2020; Okamoto et al., 2020). In Malaysia, the Ministry of Education has issued a directive that requires six subjects that are taught in public secondary schools in the country, namely: religious study, civic education, physical and health education, science, languages, and life skills, to incorporate topics related to drug use into their respective methods of instruction and education of students (KPM, 2018). This piece of legislation stressed that it is the responsibility of the classroom teachers who teach the courses to bring up the decision in their classrooms in accordance with the rule that requires them to do so. The rule put a significant amount of focus on ensuring this condition was satisfied. Those expected to meet this promise are the teachers present in the classroom and in charge of instructing the students in the different disciplines. According to Goh et al. (2012), for educators to successfully give drug education within a classroom environment, they must have high levels of self-efficacy and teaching competency. This is due to the strong correlation between high self-efficacy levels and greater teaching competency (Vizek-Vidović & Domović, 2019). This is due to research that has established a correlation between higher levels of Teachers' Self-Efficacy (TSE) and more substantial levels of Teaching Competency (TC) in the classroom.

While Malaysia mandates the integration of drug education across multiple subjects, international research highlights varied approaches. For instance, studies in the United States emphasize community-based interventions (Okamoto et al., 2020), while European models focus on life-skills training within school curricula (Velasco et al., 2017). This study contributes to the global discourse by providing empirical validation of teacher self-efficacy and competency as critical factors in effective drug education, reinforcing the need for teacher-centered interventions worldwide.

Teachers' Self-Efficacy (TSE)

Self-efficacy is one aspect that affects a teacher's effectiveness, among others. A teacher's belief in their ability to manage their obligations, commitments, and challenges is called teacher self-efficacy. Since it is a strong motivator that influences classroom teachers conduct and effort put forth in the attempt, instructors' self-efficacy has repeatedly been shown to be a critical component for the effectiveness of the instructional activity (Klassen et al., 2009; Klassen & Tze, 2014). As a result, greater teacher self-efficacy may result in better mental health and job satisfaction for teachers and higher academic accomplishment for students (Bandura, 1977).

Teaching Competency (TC)

Competencies are the skills that enable teachers to succeed. To increase student learning in a highly difficult scenario where hundreds of crucial decisions must be made daily, teachers must be knowledgeable in various skills (Jackson, 1990). Teaching is one of the few occupations that require the appropriate use of evidence-based competencies and professional judgment. Many of us have witnessed the transformational influence of a great teacher firsthand. We need to know how to demonstrate the supposed link between teaching and student academic progress. Researchers discovered that teachers significantly influenced students' performance in all the characteristics a school may manage (Sanders & Rivers, 1996; Babu & Mendro, 2003). It is critical to understand what distinguishes good instructors from ineffective teachers and how this information can be used to improve education. We may begin to create a profile of excellent classroom instruction based on effectiveness studies (Wenglinsky, 2002; Hattie, 2009).

Aims and scope

The constructs of Teachers' Self-Efficacy (TSE) and Teaching Competency (TC) are grounded in Bandura's (1977) social cognitive theory, which posits that individuals' belief in their capabilities influences their motivation and performance. Teachers with high self-efficacy are more likely to adopt innovative teaching strategies and persist in overcoming classroom challenges (Tschannen-Moran & Hoy, 2001). Similarly, the competency-based teaching model (Wenglinsky, 2002; Hattie, 2009) emphasizes that effective teaching is a function of pedagogical skills, curriculum knowledge, and classroom management. By aligning with these frameworks, the validated TSE and TC instruments in this study provide an evidence-based approach for assessing teacher preparedness in drug education, reinforcing the role of teacher training programs in fostering instructional effectiveness.

This study develops questionnaires to explore the factor structures of TSE and TC in Malaysian school drug education. These questionnaires were created to investigate the various variables associated with TSE and TC. Before going on to the instruments used in the actual study, it is crucial to discuss the validity and reliability of the questionnaires (Chan & Idris, 2017; Hakimi et al., 2024). This research investigated the validity and reliability of the TSE and TC instruments for use in the context of drug education programs in secondary schools in Malaysia.

Malaysia is explicitly being looked at as a framework for this study. To provide more clarity, the issue of drug education will act as the primary focus of the whole study. It is hoped that the research on validity and reliability will improve the quality of the instruments that may assist teachers in the classroom in preventing drug use among students throughout the teaching and learning process. Specifically, it is hoped that this improvement will take place as a direct result of the research. In particular, it is envisioned that this progression would take place as a direct result of the research on the validity and reliability of the test. Given the critical role of teachers in drug prevention education, this study aims to establish the validity and reliability of the Teachers' Self-Efficacy (TSE) and Teaching Competency (TC) instruments, ensuring their suitability for assessing educators' preparedness in delivering drug education in Malaysian secondary schools.

METHODS

Research Design

The methodological approach was structured into two phases: first, the validity testing, which involved expert evaluation to refine the questionnaire content; and second, the reliability testing, where a pilot study with teachers determined the consistency of responses using Cronbach's alpha. To obtain answers to the question of interest, a quantitative, non-experimental methodology based on pre-service teachers' self-reports of their teaching practice was used to validate the instrument. Experts were asked about: a) the content validity of TSE and TC questionnaires; and b) the improvement of the content validity of TSE and TC questionnaires. The quantitative evaluation consisted of a scale from 1 to 100 per cent. After this feedback, a new list of items was established. On the other hand, reliability will be measured by implementing the TSE and TC questionnaires on pilot study participants. The results will be analysed using Statistical Package for Social Science (SPSS) program Version 24 based on Cronbach's Alpha, where the instruments were reliable if the value is more than .70.

Participants

A total of nine experts participated in the validity test. These experts were from three different public institutions in Malaysia: Universiti Putra Malaysia (UPM), Universiti Pendidikan Sultan Idris (UPSI), and Universiti Kebangsaan Malaysia (UKM). They filled out the form assessment questionnaire and supplied comments in the column provided in the forms (Jouanjus et al., 2018; Rahmi, 2024). In addition, the questionnaires were distributed to 43 classroom teachers working in Malaysian public secondary schools to conduct a reliability test.

Experts for content validity evaluation were selected through purposive sampling, ensuring they had expertise in educational psychology, curriculum design, and teacher training. They were recruited from three leading public universities in Malaysia, all with significant experience in teacher education and assessment. Classroom teachers participating in the reliability study were selected based on their active role in secondary school drug education programs, ensuring they had firsthand experience implementing such content. Despite these efforts, a limitation of this study is the relatively small sample size, particularly among the expert panel (N=9), which may not fully capture the diversity of perspectives on the constructs being assessed. Additionally, the reliance on self-reported responses could introduce response bias, where participants may overestimate or underestimate their efficacy and competency. Future studies should consider larger and more diverse samples and employ mixed-method approaches, including classroom observations, to triangulate findings.

Although the sample size (N=43 teachers, N=9 experts) is relatively small, it aligns with previous validation studies in educational research where expert evaluations and pilot testing provide sufficient initial evidence for instrument reliability (e.g., Chan & Idris, 2017). Future research should extend this study with a larger and more diverse sample to improve generalizability.

Instruments for gathering data

In order to include drug prevention education material in the teaching and learning process, the teachers focus on teaching six themes highlighted by the Ministry of Education. Tschannen-Moran and Hoy's (2001) questionnaire was adapted to form the TSE instrument's first version, whereas Spanierman et al.'s (2011) questionnaire was adapted for developing the TC instrument. The researchers successfully obtained permission from the inventors of the two questionnaires to adapt and improve the instruments in accordance with the circumstances in Malaysia. The instrument used in this investigation comprises 46 items that provide insight into nine different structures. The TSE questionnaire consists of 24 questions and is divided into three different constructs: effectiveness in student engagement, efficacy in instructional tactics, and efficacy in classroom management. There are 22 questions in the TC questionnaire and six different categories. These constructs include instructional planning, curriculum, pedagogical knowledge, technology instruction, classroom management, and social skills.

FINDING AND DISCUSSIONS

Examinations of the validity and reliability of the questionnaires are carried out to ensure that the questions being presented are of the highest possible quality (Mahmoodabad et al., 2018; Jiang & Kong, 2024). The item analysis aims to achieve two purposes: first, to determine the assessment's findings, and second, to enhance the interpretation of the questionnaire (Reynolds et al., 2010; Arwin et al., 2022). When discussing the outcomes of a test, the concept of "validity" refers to the extent to which theoretical and empirical reasons are offered. Based on the academic opinions of reviewers or expert evaluators, evaluating the aspects of the questionnaire being analysed accurately is feasible. When we speak about something being dependable, we mean that the outcome remains the same even if we experiment several times over varying amounts of time. This is what we mean when we talk about something being trustworthy. The following discussion covers the findings of validity and reliability tests performed on the TSE and TC questionnaires distributed to secondary school students in Malaysia. These tests were carried out in order to determine whether or not the questionnaires were reliable and valid. These studies were conducted to establish whether the TSE and TC questionnaires could be relied upon.

Validity of the Questionnaire of Teachers` Self-Efficacy and Teaching Competency in School Drug Education

Table 1. Content Validity of TSE & TC Questionnaires by Nine Expert Evaluators

No	Items	Per cent (%)
	Teachers` Self-Efficacy	
1	Item 1	72.2
2	Item 2	85.6
3	Item 3	81.1
4	Item 4	83.3
5	Item 5	84.4
6	Item 6	85.6
7	Item 7	80.0
8	Item 8	83.3
9	Item 9	82.2
10	Item 10	87.8
11	Item 11	86.7
12	Item 12	85.6
13	Item 13	87.8
14	Item 14	88.9
15	Item 15	83.3
16	Item 16	86.7
17	Item 17	90.0
18	Item 18	88.9
19	Item 19	87.8
20	Item 20	86.7
21	Item 21	82.2
22	Item 22	86.7
23	Item 23	87.8
24	Item 24	78.9
	Teaching Competency	
25	Item 1	86.7
26	Item 2	84.4
27	Item 3	83.3
28	Item 4	84.4
29	Item 5	83.3
30	Item 6	78.9
31	Item 7	82.2
32	Item 8	77.8
33	Item 9	67.8
34	Item 10	86.7
35	Item 11	77.8
36	Item 12	74.4
37	Item 13	68.9
38	Item 14	88.9
39	Item 15	80.0
40	Item 16	78.9
41	Item 17	83.3
42	Item 18	80.0
43	Item 19	77.8
44	Item 20	81.1
45	Item 21	73.3
46	Item 22	88.9

Table 1 provides more information on the comparative content validity study performed on the TSE and TC questionnaires. These discoveries are linked to the surveys' respective validity in different ways. The research used a standard validity threshold of 70%. According to Sidek and Jamaludin (2005), the level of validity of the questionnaire's content has been set at 70%, which implies that the items have a degree of mastery or achievement in terms of content validity. In other words, the level of validity has been set at 70%, with a high acceptance rate, and the items can be used for data collection in the actual study (Mohajan, 2017; Clark & Watson, 2019).

To phrase it another way, it has been determined to what extent the validity of the questions included in the questionnaire. The poll questions seem to not deviate too much from the standard fare, which is a positive development. Another way to phrase this is to say that the questionnaire is valid to the degree that it meets all prerequisite conditions. This is still another way of saying the same thing. We are free to go on to the next step in the procedure now that we have resolved the issue. Additionally, the items given the go-ahead will be enhanced by considering the feedback from the experts who evaluated them (Ermenc et al., 2015).

Table 2. Improvement of Content Validity of TSE & TC Questionnaires by Nine Expert Evaluators

Expert	Improvement
1	Overall, the instruments have qualified to measure teachers' self-efficacy and teaching competency.
2	Overall satisfying, but need to recheck a little bit about spelling errors.
3	It should be follow-up questions to expand the content and get more information. Discussion of one of the teaching methods includes the classroom environment (item 40). “I do discussions with my students about the dangers of drugs for their lives in the classroom.”.
4	Theoretical knowledge does not mean a person has "pedagogical" knowledge (item 31). “I have knowledge about teaching strategies of drug prevention education in the classroom”. "weakness" in what sense? Can be explained like this (item 24) “I can give explanations when students are confused in understanding the subject matter”.
5	Need to purify the meaning of the statement. Add (method) (item 32) “I understand the methodology that can be used in drug abuse prevention in pedagogy”.
6	Associate with drug prevention programs (item 29) “In curriculum, I combine learning topics with drug prevention education program activities”.
7	Program or activity? Make it clear (item 26) “I plan programs to increase students’ knowledge about drug abuse”. Is it to the school environment or the classroom environment? (item 38) "I make changes in my classroom so that students "can understand drug abuse's dangers.
8	Needs more to be linked to drug prevention (item 36) “I understand the importance of integrating technology in teaching drug abuse prevention”.
9	Overall satisfying.

Table 2 shows experts' comments on the instruments of TSE and TC in drug education. Most experts provided positive feedback, suggesting the instrument’s overall quality. The instrument’s

usefulness depends on both its individual components and its overall structure. These are some of the opinions that have been voiced on the capacity of the instrument to carry out the functions for which it was developed. However, various elements must be addressed to achieve the degree of quality in the instrument necessary to conduct significant research (Andrade, 2018; Maba et al., 2018). This must be the case to reach the required level of quality in the finished product. For the instrument to achieve this degree of success, it must possess this level of quality. This is because a large number of distinct facets need to be managed in order to achieve the requisite degree of quality. Achieving this goal requires considering multiple factors. In order to obtain the needed level of quality and fulfil the criterion, which demands that this stage be finished, we are now in a critical stage. Each process step must be carried out to arrive at the intended result and achieve the quality sought in the instrument. This is true regardless of the degree of difficulty presented by the instrument.

Furthermore, Appendix 1 is the outcome of the most recent version, which considers the input offered by expert evaluators on the many elements that were questioned in the TSE and TC questionnaires. The next stage involves the classroom teachers evaluating the validity and reliability of the constructed assessment instruments of TSE and TC in drug education. This level describes the procedure used by the researcher in the instrument construction process. In this phase, it is necessary to identify the related constructs and variables, identify the characteristics of the variables of each construct, construct items, determine the validity, determine the data score of each construct, determine the reliability, and produce the latest version of the assessment instrument after it has been improved. At the next stage of the process, which is the phase that will entail the participation of 43 public secondary school teachers as respondents in the pilot project, questionnaires will be used. This step of the procedure will take place after the previous one. These classroom teachers will be participants in the pilot research's framework. The effectiveness of the primary aim of the pilot project will be evaluated with the assistance of the questionnaires, which will be evaluated for their utility first and foremost as part of the pilot project's fundamental purpose, which is to evaluate the questionnaires' usefulness. During the pilot study, data were collected that would subsequently be used to establish the instrument's level of accuracy.

Reliability of the Questionnaire of Teachers` Self-Efficacy and Teaching Competency in School Drug Education

Table 4. Reliability Test of TSE & TC Questionnaires

Variables	N of Items	Cronbach's Alpha	Accepted Scale	Decision
TSE	24	.973	.973 > .70	Reliable
TC	20	.964	.964 > .70	Reliable

The findings of the TSE questionnaire are shown in Table 4, and one can see that twenty-four of the questions have a Cronbach's alpha value greater than or equal to .973 of the total potential score. This can be seen by looking at the table. Meanwhile, twenty of the questions on the TC questionnaire have a Cronbach's alpha score of .964 or higher, which implies that they are more trustworthy than .70. Cronbach's alpha levels of .70 or above are considered respectable, .80 or higher are considered exceptional, and values more significant than that is considered acceptable (Cortina, 1993; Cook et al., 2017; Taber, 2018). Reliability refers to the consistency or stability of assessment results. This means a person can get the same score from the same instrument if their competence is the same or the trait to be examined does not change even after being measured numerous times using the same equipment. As a result, the researchers used the internal consistency technique in SPSS to calculate the alpha coefficient, commonly known as Cronbach Alpha, for each construct and the overall evaluation instrument.

The strong reliability scores (Cronbach’s alpha .973 for TSE and .964 for TC) confirm the consistency of these instruments in assessing teachers’ self-efficacy and teaching competency in school drug education. Compared to previous studies on teacher efficacy (e.g., Klassen et al.,

2009; Tschannen-Moran & Hoy, 2001), our findings support the notion that teachers with high self-efficacy are better equipped to deliver specialized education, such as drug prevention. However, this study extends prior research by validating an instrument specifically tailored to the Malaysian education system, addressing the gap in localized tools for measuring teachers' ability to integrate drug education into their teaching. This contribution is particularly relevant given the Malaysian Ministry of Education's policy on incorporating drug awareness into school curricula. These findings highlight the need for targeted teacher training programs to improve efficacy in delivering sensitive topics.

The findings align with Bandura's (1977) social cognitive theory, which posits that individuals' belief in their capabilities directly influences their motivation and performance. Teachers with higher self-efficacy are more likely to engage in proactive strategies for drug prevention, overcoming barriers in delivering sensitive topics. The significant reliability scores further support the argument that confidence in teaching competence plays a crucial role in shaping effective educational outcomes in drug prevention. This reinforces the need for interventions that strengthen teachers' self-efficacy to enhance student engagement.

These findings suggest that cultural and contextual factors play a significant role in shaping teacher self-efficacy and competency in drug education. The high reliability scores indicate that the adapted instruments are well-suited to the Malaysian education system, yet the broader applicability of these tools remains to be tested in other regions. Given the collectivist nature of Malaysian society, where parental and community involvement are integral to education, future research should examine how such social dynamics influence teacher efficacy in drug prevention efforts.

Recent studies (e.g., Hakimi et al., 2024; Jiang & Kong, 2024) emphasize the growing role of digital tools in enhancing teacher efficacy, suggesting that incorporating technology in drug prevention education could further strengthen teacher competency. Future research should explore how digital resources can complement traditional teaching methods in this field.

Despite its contributions, this study has certain limitations. The reliance on self-reported data may introduce bias, as participants could overestimate their self-efficacy. Additionally, the relatively small sample size, particularly for the expert evaluation, limits the generalizability of the findings. Future research should incorporate classroom observations and longitudinal studies to triangulate these results and assess the long-term impact of teacher self-efficacy and competency on student learning outcomes (Handrianto et al., 2021; Rita et al., 2021).

In this study, each item constructed from TSE and TC based on the literature review is inappropriate for factor analysis. Therefore, in order to determine which individual items should be retained or removed, the pilot study data can be analysed by item analysis using the Cronbach Alpha reliability coefficient. Based on the analysis of the reliability test, the TSE and TC instruments used in school drug education are acceptable and reliable enough to use in actual research. This is because the test results showed high consistency between the two instruments (Sarte et al., 2021; Anggraini et al., 2022). Because the test results demonstrated a high degree of consistency between the two instruments, a conclusion can be drawn from those data.

CONCLUSION

This study confirms the validity and reliability of the TSE and TC questionnaires in assessing teachers' self-efficacy and competency in Malaysian secondary school drug education. This is indicated by the TSE and TC questionnaires' findings, which are valid and reliable based on academics' and practitioners` evaluations. It has been decided that some items should not be included in the validity test since they did not meet the requirements to qualify and got low marks from expert evaluators. As a result of the reliability test revealing high scores for the questionnaire's 44 items, it has been determined that teachers' self-efficacy and teaching competency instruments in school drug education are suitable for use in the actual study that will be carried out in the future. The development of TSE and TC instruments in drug education in

secondary schools is expected to help teachers know their ability to integrate drug topics taught in class and try to repair weaknesses in their teaching. This instrument serves as a reference for teachers in planning effective drug prevention lessons. This teacher's self-efficacy and teaching competency instruments can be used as a guide to see to what extent the results of learning the topic of drugs have been optimally achieved in accordance with the target and purpose of the learning itself. It is strongly recommended that the government gather and use data from genuine research to modify policy in curriculum-connected drug education to improve teacher effectiveness and professional growth in integrating drug issues in the classroom. Technical abilities play a crucial role in a teaching and learning process that inevitably incorporates online or blended learning elements. It is also tied to one of the teaching competencies of classroom teachers, which is to impart their topic materials or learning subjects in the context of drug education in secondary schools.

Acknowledgement

This research was supported by the Ministry of Higher Education through Long Term Research Grant Scheme (LRGS/1/2019/UKM/02/2/4), with the project title "Developing and conceptualising a model of drug-free school environment prevention strategy at selected hot spots" (grant number: 2019025610742). We would like to express our gratitude to the editorial team and reviewers who spent their priceless time reviewing and improving this article.

REFERENCES

Afrassiab, S., & Cox, C. (2016). Effect of using only the educational curriculum of a comprehensive substance abuse prevention program on perception of harm in US elementary students. *Journal of Elementary Education*, *26*(2), 29 – 39. Retrieved from: http://pu.edu.pk/images/journal/JEE/PDF/3_v26_2_16.pdf

Andrade, C. (2018). Internal, external, and ecological validity in research design, conduct, and evaluation. *Indian Journal of Psychological Medicine*, *40*(5), 498–499.

Anggraini, P. P., Apriliani, N. A., Supeni, I., & Handrianto, C. (2022). The use of the cocomelon youtube channel as a medium for introducing children's english vocabulary. *SAGA: Journal of English Language Teaching and Applied Linguistics*, *3*(2), 81-90. https://doi.org/10.21460/saga.2022.32.137

Arwin, A., Kenedi, A. K., Anita, Y., & Handrianto, C. (2022, June). The design of covid-19 disaster mitigation e-module for students of grades 1 in primary school. In *6th International Conference of Early Childhood Education (ICECE-6 2021)* (pp. 173-176). Atlantis Press. https://doi.org/10.2991/assehr.k.220602.036

Babu, S., & Mendro, R. (2003, April). Teacher accountability: HLM-based teacher effectiveness indices in the investigation of teacher effects on student achievement in a state assessment program. In annual meeting of the American Educational Research Association (AERA), Chicago, IL, April.

Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavioral change. Psychological Review, 84, 191-215.

Beaudoin, K., Mihic, S. S., & Darko, L. (2018). Croatian preschool teachers' self-perceived competence in managing the challenging behaviour of children. *Center for Educational Policy Studies Journal*, *8*(2), 123-138.

Chan, L. L., & Idris, N. (2017). Validity and reliability of the instrument using exploratory factor analysis and cronbach's alpha. *International Journal of Academic Research in Business and Social Sciences*, *7*(10), 400-410. https://doi.org/10.6007/IJARBSS/v7-i10/3387

Clark, L. A., & Watson, D. (2019). Constructing validity: New developments in creating objective measuring instruments. *Psychological Assessment*, *31*(12), 1412.

Cook, D. A., Castillo, R. M., Gas, B., & Artino Jr, A. R. (2017). Measuring achievement goal motivation, mindsets and cognitive load: Validation of three instruments' scores. *Medical Education*, *51*(10), 1061-1074.

Cortina, J. M. (1993). What is coefficient alpha? An examination of theory and applications. *Journal of Applied Psychology*, *78*(1), 98-104. https://doi.org/10.1037/0021-9010.78.1.98

Darcy, C. (2020). Precarious positions of understanding: The illicit drug landscape and drug education in Ireland. *Irish Educational Studies*, pp. 1 – 13. https://doi.org/10.1080/03323315.2020.1779111

Ermenc, K. S., Vujisić, N. Ž., & Spasenović, V. (2015). Theory, practice and competences in the study of pedagogy–views of Ljubljana and Belgrade university teachers. *Center for Educational Policy Studies Journal*, *5*(2), 35-55.

Goh, P. S. C., Teck, W. K., & Osman, R. (2012). Student-teachers' approaches to learning, academic performance and teaching efficacy. *Malaysian Journal of Learning and Instruction*, *9*, 31-46. Retrieved from: http://e-journal.uum.edu.my/index.php/mjli/article/view/7635

Hakimi, T. I., Jaafar, J. A., Mohamad, M. A., & Omar, M. (2024). Unified theory of acceptance and use of technology (UTAUT) applied in higher education research: A systematic literature review and bibliometric analysis. *Multidisciplinary Reviews*, *7*(12), 2024303-2024303.

Handrianto, C., Uçar, A. S., Saputra, E., Nengsih, Y. K., Kenedi, A. K., & Rahman, M. A. (2021). Competences of adult learning facilitators in community service learning: A review of literatures. *Kolokium*, *9*(2), 118-129. https://doi.org/10.24036/kolokium-pls.v9i2.493

Hattie, J. (2009). The black box of tertiary assessment: An impending revolution. Tertiary assessment & higher education student outcomes: Policy, practice & research, 259-275.

Jia, J., Li, D., Li, X., Zhou, Y., Wang, Y., Sun, W., & Zhao, L. (2018). Peer victimisation and adolescent internet addiction: The mediating role of psychological security and the moderating role of teacher-student relationships. *Computers in Human Behavior*, *pp. 85*, 116–124. https://doi.org/10.1016/j.chb.2018.03.042

Jiang, Y., & Kong, M. (2024). The evolution of artificial intelligence on nursing education in China. *Multidisciplinary Reviews*, *7*(12), 2024291-2024291.

Jouanjus, E., Falcou, A., Deheul, S., Roussin, A., & Lapeyre- Mestre, M. (2018). Detecting the diverted use of psychoactive drugs by adolescents and young adults: A pilot study. *Pharmacoepidemiology and Drug Safety*, *27*(11), 1286-1292. https://doi.org/10.1002/pds.4624

Klassen, R. M., Bong, M., Usher, E. L., Chong, W. H., Huan, V. S., Wong, I. Y., & Georgiou, T. (2009). Exploring the validity of a teachers' self-efficacy scale in five countries. *Contemporary educational psychology*, *34*(1), 67-76. https://doi.org/10.1016/j.cedpsych.2008.08.001

Klassen, R. M., & Tze, V. M. (2014). Teachers' self-efficacy, personality, and teaching effectiveness: A meta-analysis. *Educational research review*, *12*(1), 59-76. https://doi.org/10.1016/j.edurev.2014.06.001

KPM. Kementerian Pendidikan Malaysia. 2018. *Panduan pelaksanaan pendidikan pencegahan dadah di sekolah.* Putrajaya.

Maba, W., Perdata, I. B. K., Astawa, I. N., & Mantra, I. B. N. (2018). Conducting assessment instrument models for teacher competence, teacher welfare as an effort to enhance education quality. *International Research Journal of Management, IT and Social Sciences*, *5*(3), 46-52.

Mahmoodabad, S. S. M, Sadeghi, R., Fallahzadeh, H., Rezaeian, M., Bidaki, R., & Khanjani, N. (2018). Validity and reliability of the preventing hookah smoking (PHS) questionnaire in adolescents based on the protection motivation theory. *International Journal of Pediatrics*, *6*(10), 8327-8337. https://doi.org/10.22038/ijp.2018.31591.2797

Mohajan, H. K. (2017). Two criteria for good measurements in research: Validity and reliability. *Annals of Spiru Haret University. Economic Series*, *17*(4), 59-82.

Nurmala, I., Pertiwi, E. D., & Devi, Y. P. (2020). Perception of roles as peer educators in high schools to prevent drug abuse among adolescents. *Indian Journal of Forensic Medicine & Toxicology*, *14*(1). https://doi.org/10.37506/ijfmt.v14i1.286

Okamoto, S. K., Helm, S., Chin, S. K., Hata, J., Hata, E., & Okamura, K. H. (2020). The implementation of a culturally grounded, school- based drug prevention curriculum in rural Hawaii. *Journal of Community Psychology*, *48*(4), 1085–1099. https://doi.org/10.1002/jcop.22222

Peklaj, C. (2015). Teacher competencies through the prism of educational research. *Center for Educational Policy Studies Journal*, *5*(3), 183–204.

Rahmi, K. H. (2024). Teachers' mental health and well-being in education: What can be improved for the education system in Indonesia? *Multidisciplinary Reviews*, *7*(12), 2024301-2024301.

Reynolds, C. R., Livingston, R. B., & Willson, V. L. (2010). *Measurement and assessment in education* (2nd Edition). Upper Saddle River, NJ: Pearson Education.

Rita, Y., Muliana, I. L., & Handrianto, C. (2021). Taksonomi bloom dalam materi sistem persamaan linear pada program paket c di PKBM hang tuah pekanbaru. *JURING (Journal for Research in Mathematics Learning)*, *4*(1), 69-80. http://dx.doi.org/10.24014/juring.v4i1.12354

Sanders, W. L., & Rivers, J. C. (1996). Cumulative and residual effects of teachers on future student academic achievement.

Sarte, N. M. R., Santiago, B. T., Dagdag, J. D., & Handrianto, C. (2021). Welcome back: The return of college dropouts to school. *Jurnal Pendidikan dan Pemberdayaan Masyarakat (JPPM)*, *8*(2), 140-149. https://doi.org/10.36706/jppm.v8i2.15386

Sidek M. N., & Jamaludin A. (2005). *Module building: How to build training modules and academic modules*. Serdang: University Putra Malaysia Publisher.

Spanierman, L. B., Oh, E., Heppner, P. P., Neville, H. A., Mobley, M., Wright, C. V., ... & Navarro, R. (2011). The multicultural teaching competency scale: Development and initial validation. *Urban Education*, *46*(3), 440-464. https://doi.org/10.1177/0042085910377442

Taber, K. S. (2018). The use of Cronbach's alpha when developing and reporting research instruments in science education. *Research in Science Education*, *48*(6), 1273–1296.

Tschannen-Moran, M., & Hoy, A. W. (2001). Teacher efficacy: Capturing an elusive construct. *Teaching and teacher education*, *17*(7), 783-805. https://doi.org/10.1016/S0742-051X(01)00036-1

Velasco, V., Griffin, K. W., Botvin, G. J., Celata, C., Antichi, M., Mercuri, F., ... & Casalini, L. (2017). Preventing adolescent substance use through an evidence-based program: Effects of the Italian adaptation of life skills training. *Prevention Science*, *18*(4), 394. https://doi.org/10.1007/s11121-017-0776-2

Vizek-Vidović, V., & Domović, V. (2019). Development of teachers' beliefs as a core component of their professional identity in initial teacher education: A longitudinal perspective. *Center for Educational Policy Studies Journal*, *9*(2), 119-138.

Vlah, N., Velki, T., & Kovacic, E. (2021). Teachers' self-efficacy based on symptoms of attention deficit hyperactivity disorder in primary school pupils. *Center for Educational Policy Studies Journal*, *11*(3), 141-161.

Wenglinsky, H. (2002). The link between teacher classroom practices and student academic performance. Education policy analysis archives, 10, 12-12. https://doi.org/10.14507/epaa.v10n12.2002

Appendix 1 - The Instruments of TSE & TC in School Drug Education After Validity Test

No.	Items
	TEACHERS SELF-EFFICACY
	Efficacy in Students` Engagement
1	I am able to approach students who face learning difficulties.
2	I am able to encourage my students to think critically about the dangers of drugs.
3	I can motivate my students to participate in my classroom's teaching.
4	I am able to help my students by being confident about staying away from drugs.
5	I am able to develop the positive behaviour of my students in my teaching.
6	I am able to improve students' creativity in drug prevention efforts.
7	I am able to increase students' understanding of the dangers of drugs.
8	I can collaborate with parents to encourage students to do positive things.
	Efficacy in Instructional Strategies
9	I am able to answer the questions related to drug abuse from my students.
10	I am able to measure to what extent the students understand what I have taught.
11	I am able to create some questions about the dangers of drug abuse for my students.
12	I am able to adapt my lessons to the level of abilities of each student.
13	I can use various drug prevention assessment strategies in my classroom.
14	I can give explanations when students are confused about understanding the subject matter.
15	I implement alternative strategies in my classroom in drug prevention efforts.
16	I am able to give challenges to students who are capable of fighting against drugs.
	Efficacy in Classroom Management
17	I am able to control disruptive behaviours in my classes.
18	I can prevent my students from getting involved with drug abuse.
19	I can set various strategies so that my teaching and learning activities can run smoothly.
20	I am able to make students follow the rules to stay away from drugs.
21	I am able to calm down the students who were making noise in my class.
22	I am able to improve my classroom management by cooperating with each group of students.
23	I am able to manage my students who have a preference to try drugs.
24	I am able to overcome my students who have problems in my class.
	TEACHING COMPETENCY

	Teaching Planning
25	I plan activities related to drug prevention education in my instruction.
26	I plan programs to increase students' knowledge about drug abuse.
27	I plan to teach activities to improve students' awareness of the dangers of drugs.
	Curriculum Application
28	I integrate drug prevention education into my teaching.
29	In the curriculum, I combine learning topics with drug prevention education program activities.
30	I set up my learning topics that could expand students' experiences related to drug abuse.
	Pedagogical Knowledge
31	I have knowledge about teaching strategies for drug prevention education in the classroom.
32	I understand the methodology that can be used in drug abuse prevention in pedagogy.
33	I have assessment skills to evaluate students` performance in my classes.
	Using of Technology
34	I know that the use of technology can create effective learning.
35	I can use technology in teaching-learning activities related to drug abuse prevention.
36	I understand the importance of integrating technology in teaching drug abuse prevention.
37	I have skills in using technology in drug prevention education in the classroom.
	Classroom Environment
38	I make changes in my classroom so that students can understand the dangers of drug abuse.
39	I often promote drug abuse prevention with the behaviours I exhibit in my daily life.
40	I do discussions with my students about the dangers of drugs for their lives in the classroom.
	Social Competency
41	I always consult with other teachers related to drug prevention education in the classroom.
42	I build a close relationship with parents for drug prevention education in school.
43	I know how the environment and community can affect the learning process.
44	I understand that I need support from the community to prevent drug abuse among students.