

## Exploring teachers' conceptions of assessment: A quantitative study in a secondary school setting

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### Abstract

This study aims to unveil the conceptions of assessment held by secondary school teachers, which have a significant impact on their classroom assessment practices and students' study habits. The four variables that underpin the conceptions of assessment in this study are improvement, school accountability, student accountability, and irrelevance. The research was conducted in a single district of Selangor, with the participation of 80 secondary school teachers. Descriptive findings reveal that the conception of improvement garnered the highest level of agreement among participants, while school accountability received the lowest level of agreement. Furthermore, a MANOVA analysis was employed to investigate the potential influence of gender and years of teaching experience on participants' perceptions. The analysis demonstrates that neither gender nor years of teaching experience significantly affect participants' conceptions of assessment. This study's outcomes are expected to provide valuable insights to all education stakeholders, particularly those concerned with secondary school assessment practices, regarding teachers' conceptions of assessment.

**Keywords:** Conceptions of assessment, improvement, irrelevant, school accountability, student accountability, teacher perceptions

### Introduction

The integration of constructivist and sociocultural approaches to learning and assessment has emerged as a vital aspect of curriculum reform initiatives worldwide (Berry, 2011). Educational scholars concur that assessment practices play a pivotal role in shaping educational processes (Elwood & Klenowski, 2002) and are considered a fundamental component for achieving optimal learning outcomes (Brookhart & Bronowicz, 2003), which

are closely linked to students' motivation and self-concept (Black & William, 2010). In this regard, Stiggins (2005) argued that assessment serves as a strategic tool employed by decision-makers to support schools in fulfilling their new mandates through comprehensive testing. The significance of assessment in education, therefore, cannot be overstated, as it provides educators with the means to evaluate student progress and adjust teaching strategies to optimize learning.

The significance of assessment in the teaching and learning process has grown significantly, as all stakeholders, including educators, students, administrators, and parents, demand tangible outcomes from the educational process (Monteiro et al., 2021). The centrality of assessment in advancing the quality of teaching and learning processes cannot be overstated, as it empowers educators and learners to draw insights from data and take informed action (Shahazwan Mat Yusoff et al., 2023; Yetkin & Özer, 2020). Assessment practices not only evaluate students' learning outcomes but also serve as a mechanism to improve the effectiveness of teaching and learning processes (Zimmer & Matthews, 2022). This approach facilitates the identification of areas requiring attention and improvement, enables educators to make necessary changes to their teaching practices, and provides insights into students' mastery or achievement levels at a particular point in time. Ultimately, assessment practices play a pivotal role in promoting accountability and continuous improvement in the education sector, ensuring that the teaching and learning process remains dynamic and effective.

Shahazwan Mat Yusoff et al. (2023) contend that assessment practices play a critical role in shaping student learning outcomes, serving both formative and summative purposes to improve the quality of teaching and learning. In its broadest sense, assessment encompasses all methods utilized by teachers and students to evaluate their progress and performance (Black & William, 2010), providing a means of identifying, describing, and interpreting what exists, what it entails, and how it is measured (Knight, 2002). Notably, teachers' conceptions of assessment have emerged as a crucial area of inquiry in assessment research (Brown, 2006). Assessment conceptions refer to individuals' perceptions of the assessment process, informed by personal experiences with and of assessment. Understanding teachers' assessment conceptions is critical because these beliefs significantly influence how they evaluate their students' learning and outcomes (Brown, 2006; Margot & Kettler, 2019; Mariam Yousef Abduh, 2021; Shahazwan Mat Yusoff et al., 2023; van der Kleij, 2019). Therefore, delving into teachers' conceptions of assessment can offer insights into their assessment practices, highlighting areas that require attention and providing opportunities to improve teaching and learning outcomes. Such insights can inform policy decisions and interventions aimed at promoting effective assessment practices in schools, ultimately improving student learning outcomes.

### **Conceptions of assessment**

Scholars have identified various purposes of assessment, including enhancing the teaching and learning process, evaluating students' learning outcomes, and measuring school and teacher performance. Brown's (2006) conceptual framework outlines four major conceptions of assessment held by teachers, which are improvement, school accountability, student accountability, and irrelevance. The adoption of a particular assessment conception by teachers can have significant implications for the way they assess their students and the outcomes they seek to achieve (Shahazwan Mat Yusoff et al., 2023). Therefore, understanding teachers' assessment conceptions can provide insight into their assessment practices and inform efforts to improve teaching and learning outcomes. However, some critics argue that the emphasis on accountability in assessment can lead to a narrowing of the curriculum and

teaching to the test, detracting from the overall quality of education (Anwar Farhan Mohamad Marzaini et al., 2023; Shahazwan Mat Yusoff et al., 2022; Shahazwan Mat Yusoff et al., 2023). Thus, it is important to strike a balance between accountability and the broader goals of education.

Brown's (2006) improvement conception of assessment posits that assessment plays a crucial role in enhancing students' learning and improving the quality of teaching. Nevertheless, for assessment to achieve its intended purpose of improvement, two critical conditions must be fulfilled, namely the provision of an accurate description of student performance and the use of valid, reliable, and accurate assessment information. The use of the term 'formative' is often associated with the improvement conception of assessment, while the term 'summative' is linked to the accountability conception of assessment (Astuti Azis, 2015; Dayal & Lingam, 2015). However, Scriven (1991) and Anwar Farhan Mohamad Marzaini et al. (2023) argued that both formative and summative assessments require the same levels of rigor and technical quality, or else the accuracy of the mid-course corrections will be compromised. Therefore, it is crucial to ensure that both types of assessments meet the required standards of accuracy and rigor to enable effective improvement of teaching and learning processes.

The second conception of assessment, as proposed by Brown (2006), centers on the use of assessment to account for how teachers, schools, or systems utilize society's resources. The concept of school accountability demands the use of assessment to evaluate school performance outcomes and determine the extent to which schools are fulfilling their obligations. According to Brown (2002), school accountability has two dimensions, namely indicating the quality of education in a school and improving the quality of instruction. The use of assessment for accountability purposes has sparked debate among scholars, with some arguing that it may lead to an overemphasis on standardized testing and narrow definitions of success (Shahazwan Mat Yusoff et al., 2022), while others argue that it is necessary to ensure that schools are meeting their responsibilities to society (Anwar Farhan Mohamad Marzaini & Shahazwan Mat Yusoff, 2022).

According to Brown's (2006) third conception, assessment is viewed as a means of individual student accountability for their learning through their performance in assessments. This implies that assessment is utilized to evaluate students' learning outcomes through rigorous and meaningful assessment techniques, with the aim of ensuring that students are held accountable for their academic performance. Such assessment practices enable students to assess their learning levels and make informed decisions about their future academic or professional endeavors. In this context, the concept of accountability emphasizes the importance of students' academic achievements and their readiness to advance to higher levels of education or employment (Ingvarson, 2001). The accountability conception of assessment is crucial in ensuring that students take responsibility for their learning and are motivated to achieve their academic goals.

Brown (2006) proposed a fourth conception of assessment that is characterized by a rejection of the use of formal and structured assessment in teaching and learning. According to this perspective, assessment is deemed to be disruptive to the natural process of learning, and it undermines teacher autonomy and professionalism. Furthermore, this conception argues that assessment shifts the focus of teaching away from the true purpose of education, which is the holistic development of students (Brown, 2004). This view is consistent with critiques of the overreliance on standardized testing and the reduction of education to a mere instrument for the production of test scores (Anwar Farhan Mohamad Marzaini & Shahazwan Mat Yusoff, 2022). While this conception may seem extreme, it serves as a reminder that

assessment practices must be critically examined and that there are valid concerns regarding the role and impact of assessment in education.

### **Studies on conception of assessment**

The field of assessment conception is a burgeoning area of research that seeks to uncover the various purposes of assessment. Numerous studies have been conducted worldwide to explore assessment conceptions in various contexts (Barnes et al., 2017; Bibi Mahdieh Mirian & Hutkemri Zulnaidi, 2020; Maslina Mohamad Mustafa & Umi Kalthom Abdul Manaf, 2019; Pastore, 2020; Unal & Unal, 2019). One such study conducted by Unal & Unal (2019) compared the assessment conceptions and practices of classroom assessment among teachers with varying years of teaching experience in a southern state in the USA. The researchers utilized purposive sampling and recruited 87 K-12 teachers who were pursuing their master's degree in the Curriculum and Instruction program at a university. The study employed two questionnaires: (1) the Conceptions of Assessment III (CoA-III) Inventory developed by Brown (2006) and Calveric (2010) and (2) the Classroom Assessment Practices Survey created by Calveric (2010), McMillan et al. (2002). The study findings revealed that both new and experienced teachers recognized the importance of assessment in their lessons, and they also utilized fair assessment practices in their teaching. This study highlights the significance of examining assessment conceptions and practices among educators, as it sheds light on how teachers perceive and utilize assessment in their classrooms. Furthermore, it emphasizes the need for ongoing professional development for educators to enhance their understanding of assessment and promote best practices in this domain.

Other than that, Daniels & Poth (2017) aimed to explore the relationship between pre-service teachers' conceptions of assessment and their intended approaches to instruction and assessment. The research involved 344 pre-service teachers from a Canadian research-intensive institution in the mid-western region. The participants completed a modified version of Brown's (2006) Teachers' Conceptions of Assessment scale (COAs). To examine the potential emergence of distinct factors related to mastery and performance approaches to instruction and assessment, the researchers conducted an exploratory factor analysis (EFA) with principal component extraction and an oblimin rotation. The results showed that pre-service teachers' beliefs about assessment were related to their approaches to instruction and assessment. Specifically, beliefs that assessment holds students and schools accountable were positively related to a performance approach to assessment, while a belief that assessment improves teaching was positively related to a mastery approach to assessment and negatively related to a performance approach. These findings highlight the importance of understanding teachers' conceptions of assessment in relation to their instructional practices and intended approaches to assessment, which may have implications for the effectiveness of teaching and learning.

Barnes et al. (2017) conducted a study to explore K-12 teachers' conceptions of assessment from a person-centered perspective. They analyzed responses from 179 teachers using the Conceptions of Assessment Instrument and found that teachers held various beliefs about the purposes of assessment. Using exploratory factor analysis, the researchers identified three factors: assessment as valid for accountability, improving teaching and learning, and as irrelevant. They also employed cluster analysis to determine the profiles of teachers based on their factor scores. The findings suggest that teachers can simultaneously hold multiple beliefs about assessment, and these beliefs may vary based on individual factors. This study sheds light on the complexity of teachers' conceptions of assessment and highlights the importance of considering individual perspectives in assessment practices.

Bibi Mahdieh Mirian and Hutkemri Zulnaidi (2020) conducted a study on the level of Iranian lower secondary level mathematics teachers' conceptions of assessment and examined the differences based on gender and academic qualifications. They used the Conception of Assessment framework and administered the COA-III questionnaire to 352 teachers. The findings of the study showed that the math teachers exhibited a moderate-level of conceptions of assessment. The study also found significant differences in Improvement and Irrelevance across academic qualifications. Teachers with Ph.D. qualifications had more conceptions of improvement and irrelevance compared to those with bachelor's and master's degree holders. However, only school accountability showed a significant difference between male and female teachers, with male teachers exhibiting more conceptions of school accountability than female teachers. The study highlights the importance of considering academic qualifications and gender when examining teachers' conceptions of assessment. The results can help inform teacher education programs and professional development initiatives to promote a more comprehensive understanding of assessment and its purposes.

In Pastore's (2020) study, the focus was on exploring the conceptions of assessment held by Italian practical teachers. A total of 417 teacher trainees who completed the Didactics modules of a postgraduate certificate were administered the COA-III questionnaire in two rounds of education courses. The study used descriptive analyses to determine teacher trainees' conceptions of assessment, while a Multivariate Analysis of Variance (MANOVA test) was conducted to examine whether socio-demographic variables such as years of experience or school grade impact the four main factors of the COA-III model. The results indicated that while the Italian teacher trainees generally agreed with assessment as a means to improve teaching and learning, they perceived assessment as being incompatible with the accountability system. This finding may have implications for the use of assessment results in the Italian education system and the training of future teachers. It is crucial to understand teachers' perceptions of assessment to improve its effectiveness and ensure that it aligns with the goals of education. Therefore, Pastore's (2020) study provides important insights into Italian teacher trainees' conceptions of assessment, highlighting the need for further investigation in this area.

Despite the growing number of studies on the conception of assessment, there is a need for further research that provides more detailed findings (Yetkin & Özer, 2020). While a few studies have been conducted in the Malaysian context, most of them have been limited to primary school teachers and specific subject areas, necessitating the exploration of the conceptions of assessment among secondary school teachers. Examining the assessment purposes and practices based on teachers' conceptions can help in enhancing the quality of assessment in education. Additionally, expanding the research on teachers' conceptions of assessment can contribute to the development of assessment policies and practices in various educational contexts.

In this regard, this study aimed to provide a description of secondary school teachers' conceptions of assessment within the local context. The research was carried out using a quantitative methodology to address the following research inquiries:

1. What is the secondary school teachers' conception of assessment?
2. Is there any difference between years of teaching and conception of assessment among secondary school teachers?
3. Is there any difference between male and female teachers' conception of assessment?

## **Methodology**

The present study aimed to explore the assessment conceptions held by secondary school teachers. Understanding their perspectives on assessment can provide insights into how assessment-related practices, teaching, and learning processes can be enhanced or improved. In terms of the data collection procedure, the study employed a quantitative research design. A survey questionnaire based on the Conceptions of Assessment (COA) model was distributed to a sample of secondary school teachers in the local context. The data collected through the survey were analyzed using statistical techniques such as descriptive analysis, exploratory factor analysis, and multivariate analysis of variance (MANOVA). Regarding the data analysis procedure, descriptive analysis was used to compute measures of central tendency and dispersion to summarize the data. MANOVA was employed to examine if there were any significant differences in teachers' assessment conceptions based on demographic variables such as gender and teaching experience.

## **Research design**

The research methodology utilized in this study was a survey study designed within a cross-sectional study design, using quantitative research methods. The data was collected through a structured questionnaire, employing a 5-point Likert-type scale to gauge the teachers' conceptions of assessment. The quantitative data gathered was analyzed using statistical methods, and the results were interpreted in light of the research objectives. It is essential to note that this study's quantitative design allowed for the analysis of large data sets, providing precise and reliable results. Additionally, the use of a standardized measurement tool like the Likert scale ensured that the data was collected objectively, reducing the risk of researcher bias.

## **Sample**

This research was conducted in a Selangor district, involving 80 secondary school teachers, including 25 male and 55 female teachers. The sample size was diverse, encompassing both novice and experienced teachers, as indicated in Table 1. The choice of a district in Selangor is noteworthy as Selangor is one of the most developed and urbanized states in Malaysia, which may influence the teachers' conceptions of assessment due to the diverse student population, the presence of various educational programs, and the use of modern technology in teaching and learning. Furthermore, the inclusion of both male and female teachers and those with varying levels of teaching experience enhances the representativeness of the sample and increases the generalizability of the findings.

**Table 1**

*Demographic Information of the Participants*

Gender	Frequency
Male	25
Female	55
Total	80
Years of teaching	
Less than 1 year	32
1 – 5 years	9
6 – 10 years	18
11 – 15 years	14
More than 15 years	7
Total	80

**Instrumentation**

To assess the teachers' conceptions of assessment, the current study used the TCoA inventory (Brown, 2006), which consists of 27 items distributed across four subscales: school accountability, student accountability, assessment improves education, and assessment is irrelevant. A 5-point Likert scale was utilized to measure the participants' responses to the TCoA inventory, ranging from strongly disagree to strongly agree. This inventory is a reliable and valid tool to measure teachers' assessment conceptions, and it has been used in numerous countries, including New Zealand, Queensland, the Netherlands, Spain, China, Hong Kong, and India. Brown (2006) and Brown's (2011) previous research in New Zealand and Queensland demonstrated the reliability of the TCoA inventory, indicating its appropriateness for use in this study. The TCoA inventory provides a comprehensive understanding of teachers' assessment perceptions and can be utilized to enhance teacher professional development programs and assessment research initiatives (Shahazwan Mat Yusoff et al., 2023).

**Data collection**

The data collection process involved a convenient sampling method, and the participants were required to provide verbal consent and complete a "Consent Form" before answering the inventory online via Google Forms. Prior to the data collection, ethical clearance was obtained from the department head and school principals to ensure that the research was conducted in accordance with ethical standards. The participants were also informed about the study's objectives, the process of data collection, and the significance of confidentiality to promote transparency and trust in the research process. The use of appropriate ethical procedures in research is crucial to safeguard the welfare of participants and ensure that the study is conducted in an ethically sound manner.

**Data analysis procedures**

The data collected was entered into the Statistical Package for the Social Sciences (SPSS version 25) software program for further analysis. Descriptive and inferential statistics were used to analyze the data. The mean value of each item was computed, and the data was interpreted. The Pearson product-moment correlation coefficient was used to determine the strength and direction of the relationships between each dependent variable. Following this, a

Multivariate analysis of variance (MANOVA) test was conducted, and all MANOVA assumptions were checked for each independent variable. This analysis was used to examine gender and experience differences among participants. ANOVA Bonferroni correction was then performed, and a follow-up ANOVA test was conducted to investigate the difference among the variables in more detail. These analyses enabled a deeper understanding of the data and contributed to the overall conclusions drawn from the study.

## Results

The variables between the teachers' years of teaching and their conceptions of assessments were compared in this study. Descriptive statistics, *t*-test, and MANOVA were used to analyze the survey data.

### ***RQ1: The Conception of Assessment (COA)***

Utilizing descriptive statistics, the assessment conceptions of the participants were scrutinized. A higher degree of agreement was indicated by a larger mean value for each variable, as indicated in Table 2 below.

**Table 2**

*Participants Overall Conceptions of Assessment*

Conception of assessment	<i>N</i>	<i>M</i>	<i>SD</i>
Improvement	80	4.07	.39
School accountability	80	3.97	.51
Student accountability	80	4.06	.48
Irrelevance	80	4.00	.40

As depicted in Table 2, the TCoA-III Scale measured four levels of assessment conceptions among the participants. The highest mean value was observed for the Improvement conception ( $M=4.07$ ,  $SD=.40$ ), followed closely by Student Accountability ( $M=4.06$ ,  $SD=.48$ ). Both of these conceptions demonstrated a high level of agreement among the participants. The Irrelevance conception ranked third with a mean value of  $M=4.00$  and  $SD=.40$ , and yet still had a high agreement level. Conversely, the School Accountability conception had the lowest mean value of  $M=3.97$  and  $SD=.51$  among all the variables measured.

### ***RQ2: The difference between years of teaching on CoA***

To investigate the potential changes in teachers' conceptions of assessment over the years of teaching, a one-way between-groups multivariate analysis of variance was performed. Prior to the analysis, several assumptions, including normality, linearity, univariate and multivariate outliers, homogeneity of variance-covariance matrices, and multicollinearity, were assessed. No significant violations were observed in any of these assumptions. The results of the analysis showed that there was no significant difference between the years of teaching and the dependent variables collectively,  $F = 1.53$ ,  $p = .089$ ; Wilks lambda = .724, as presented in Table 3. This suggests that years of teaching do not have a significant impact on the conceptions of assessment held by the participating teachers. These findings have significant implications for teacher education and professional development programs as they suggest that specific strategies and interventions may be required to improve teachers' assessment practices regardless of their years of teaching experience.



**Table 3**  
*Wilks' A for Differences in Conceptions among Years of Teaching*

	Wilks' A	F	p	Partial eta <sup>2</sup>
Years of teaching	.724	1.53	.089	0.78

Note. \* $p=.05$

**Table 4**  
*MANOVA for Differences in Conceptions of Assessment Based on Years of Teaching*

Conceptions	< 1 year	1 - 5 years	6 - 10 years	11- 15 years	15 years >	F	p	Partial eta <sup>2</sup>
Improvement	4.01	3.98	4.00	4.20	4.34	1.65	.171	.081
Student accountability	3.89	4.11	4.11	4.21	4.35	2.23	.073	.107
School accountability	3.87	4.00	3.97	4.15	4.00	.760	.555	.039
Irrelevance	3.87	3.92	4.12	4.18	4.09	2.25	.071	.107

In Table 4, separate ANOVA tests were conducted for each dependent variable, and the Bonferroni adjusted threshold of .012 was utilized to analyze the results. The findings revealed that there were no significant differences between the various years of teaching groups concerning improvement. The partial eta-squared value was .081, and the  $F$ -value was 1.65, with teachers who taught for more than 15 years having slightly higher scores than teachers who taught for 11-15 years, less than one year, 6-10 years, and 1-5 years. Similarly, there was no significant difference between student accountability and years of teaching, with a partial eta squared value of .107 and an  $F$ -value of 2.23. In addition, there was no significant difference in school accountability, with a partial eta squared value of .039 and an  $F$ -value of .760. Lastly, there was no significant difference in irrelevance, with a partial eta squared value of .107 and an  $F$ -value of 2.25, although the  $p$ -value was close to .05.

**RQ3: The difference between gender on CoA**

To investigate the potential influence of gender on the assessment conceptions of the participants, a one-way between-groups multivariate analysis of variance was performed. Prior to this analysis, the assumptions of normality, linearity, homogeneity of variance-covariance matrices, and multicollinearity were checked, and no significant deviations were detected. The results revealed that there was no significant difference between males and females with respect to the combined dependent variables, as evidenced by the non-significant  $F$ -value of 1.39, the corresponding  $p$ -value of .243, the Wilks lambda value of .931, and the partial eta squared value of .069, as shown in Table 5.

**Table 5**  
*Wilks' A for Differences in Conceptions among Gender*

Gender	Wilks' A	F	p	Partial eta <sup>2</sup>
Gender	.931	1.39	.243	.069

Note. \* $p=.05$

**Table 6**  
*MANOVA for Differences in Conceptions of Assessment Based on Gender*

Conceptions	Male	Female	F	p	Partial eta <sup>2</sup>
Improvement	4.10	4.07	.172	.680	.002
Student accountability	4.06	4.06	.001	.975	.000
School accountability	3.87	4.01	1.25	.266	.016
Irrelevance	3.91	4.05	1.95	.166	.024

Table 6 presents the results of separate ANOVA analyses conducted for each dependent variable to assess gender differences in assessment conceptions. Each ANOVA was tested at a Bonferroni-adjusted level of .012. The analysis revealed no significant differences between males and females in improvement conception, with males ( $M = 4.10$ ) scoring slightly higher than females ( $M = 4.07$ ); the  $F$ -value was not significant ( $F = .172, p = .680$ , partial eta-squared = .002). Additionally, no significant differences were found between males and females in student accountability conception ( $F = .001, p = .975$ , partial eta-squared = .000), school accountability conception ( $F = 1.25, p = .266$ , partial eta-squared = .016), and irrelevance conception ( $F = 1.95, p = .166$ , partial eta-squared = .024). These results suggest that gender does not play a significant role in shaping teachers' conceptions of assessment.

## Discussion

The present study aimed to investigate how secondary school teachers perceive assessment and its purpose, while also exploring potential differences in their views based on years of teaching experience and gender. To achieve these objectives, the study employed descriptive statistics to analyze the participants' conceptions of assessments, including improvement, school and student accountability, and irrelevance. The results of the first research question indicated that improvement was the most highly valued purpose of assessment among the participants, with a mean value of 4.07. The participants believed that assessment should be utilized to enhance the teaching and learning process and outcomes. This finding is consistent with prior research that identified improvement as the most commonly endorsed purpose of assessment (Brown et al., 2015; Yüce, 2015). Furthermore, Brown and Hirschfeld (2008) suggested that when students perceive assessment as a means of reflecting on their own learning, their academic performance is more likely to improve. This observation underscores the willingness of teachers to employ assessment as a tool to foster continuous learning and enhance student outcomes. Thus, the results of this study contribute to the growing body of literature on the importance of improvement-focused assessment practices in education.

In addition, the results of the current study revealed that the conception of student accountability was also valued by participants, with a mean score of 4.06. This finding stands in contrast to some previous studies in the literature. For instance, Gelfand and colleagues (2017) introduced the concept of "felt accountability" to explain how individuals respond to the norms of social and cultural expectations, particularly the trade-offs involved in acting in relation to the perception that their decisions and behaviors will be evaluated and scrutinized. However, having an assessment for student accountability can enhance students' positive attitudes towards the teaching and learning process (Law et al., 2019; Shahazwan Mat Yusoff et al., 2023). By recognizing their own responsibilities and being held accountable for their academic performance, students may become more engaged and motivated to learn. Additionally, providing feedback on students' performance can enable them to identify their

strengths and areas for improvement, which can be conducive to fostering their development and growth.

The conception of irrelevance was found to be moderately agreed upon by the participants ( $M=4.00$ ), which is nearly as high as the ratings for the improvement and student accountability conceptions. However, the conception of school accountability ( $M=3.97$ ) was moderately endorsed and had the lowest response rate among all the assessed conceptions. This could be attributed to the participants' belief that assessments do not accurately reflect their qualifications, which may explain the higher endorsement of the improvement conception and lower endorsement of school accountability. These findings are consistent with the notion that teachers often view assessments as a means of enhancing the teaching and learning process rather than as a tool for accountability purposes (Shahazwan Mat Yusoff et al., 2022). Furthermore, it is essential to explore the reasons behind such beliefs to develop an appropriate assessment culture in schools.

To address the second research question, a multivariate test was conducted to explore the potential differences in secondary school teachers' conceptions of assessment based on their years of teaching experience. The statistical analysis revealed that there was no significant difference in the conceptions of assessment variables among teachers with varying levels of teaching experience. The finding suggests that the years of teaching experience did not significantly influence the participants' views on assessment. This result contradicts the findings of Moiiinvaziri (2015), who found a significant relationship between teaching experience and conceptions of assessment, specifically in school accountability. Nonetheless, the present study aligns with the results of Ahmad Mahasneh and Zohair Al-Zou'bi (2021), who found no significant difference in teaching experience regarding the teachers' conceptions of assessment variables. The absence of significant differences in the current study might indicate that teachers' conceptions of assessment are relatively stable and unaffected by the years of teaching experience (Shahazwan Mat Yusoff et al., 2022). It is plausible that secondary school teachers' beliefs and values about assessment might develop during their initial teacher education programs, and they may remain relatively stable throughout their career. Another explanation could be that the teaching experience of the participants in the current study did not vary significantly, and the range of years was not extensive enough to produce significant differences in their conceptions of assessment (Anwar Farhan Mohamad Marzaini et al., 2023).

The results of the multivariate test of variance on the third research question indicated that there was no statistically significant difference in assessment conceptions between male and female secondary school teachers (Wilks'  $\lambda=.931$ ,  $p=.243$ ). Similar results were found in a study by Yetkin and Özer (2020), which also showed no significant difference between genders. Descriptive results did show slight differences in the values placed on assessment conceptions between male and female participants, but their levels of agreement for each conception were the same. Both male and female teachers agreed at a moderate level that assessment should be utilized as a means to improve teaching and learning outcomes. As noted by Carpenter et al. (2020), regardless of gender, teachers value the role of assessment in improving student learning. Based on the findings, it can be inferred that both male and female participants viewed assessment as a tool for improvement and essential to the learning process, with their differences in assessment conceptions likely arising from variations in teaching methods and practices rather than their gender.

## Conclusion

This study highlights the crucial role of teachers' beliefs and practices in shaping assessment conceptions and implementation in the classroom setting. The results suggest that teachers

should prioritize assessment and create their own assessments rather than relying on pre-made ones. This is particularly important given the finding that teachers value assessment for improvement. Therefore, teachers should take an active role in creating and using assessments to enhance students' learning and understanding. Furthermore, the study found no significant difference in assessment conceptions between male and female teachers. Thus, teachers of all genders should prioritize nurturing their students and monitoring their progress through effective assessment practices. It is worth noting that assessment can have a significant impact on teachers' pedagogical practices, as it is often linked to teacher accountability for students' achievements and pressure from schools and policymakers to create a score-oriented culture. Therefore, it is essential to ensure that assessment practices align with pedagogical goals and promote a positive learning environment. In conclusion, this study highlights the need for teachers to prioritize assessment and develop effective assessment practices that align with pedagogical goals. By doing so, teachers can improve their students' learning outcomes and create a positive learning environment. However, it is also important to consider the potential negative impacts of assessment, such as the pressure to prioritize scores over meaningful learning, and strive for a balanced approach that promotes both student achievement and a positive learning experience.

### Disclosure statement

No potential conflict of interest was reported by the author(s).

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