Evaluating the Influence of Assessment Methods on Student Engagement and Learning In Music Programmes At Shanxi Lyuliang University

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A R T I C L E   I N F O

A B S T R A C T

The assessment methods and level of instructor support significantly influence student engagement and learning outcomes. The assessment methods used, such as traditional exams, formative assessments, or project-based assessments, can have a significant impact on students' level of engagement and learning. This study aimed to investigate the correlations among pedagogical practices, student engagement, assessment procedures, and student achievement in the field of music education. A quantitative research method was utilised, where data was gathered from 375 music students via a standardised questionnaire. The data was analysed using the SPSS Process macro to assess mediation and moderation. The findings revealed that the selection and organisation of assessment strategies have significant impacts on student engagement and academic achievement. The presence of teacher support was found to moderate these relationships. Teacher support is a vital factor in shaping the relationships between assessment strategies and student engagement and academic achievement, hence the development of a classroom atmosphere that is conducive to and inclusive of all students. This provides valuable information for educators and educational institutions to improve classroom assessment practices, foster inclusivity, and create a classroom atmosphere that is conducive to learning and student accomplishment. The implications of this study are substantial for the pedagogical community.

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1. Introduction

China's educational system is deeply tied to centuries-old traditions that have long shown the value that the Chinese people placed on knowledge. Originally, the educational system was built on a single civil service exam and the teachings of Confucius. Over time, the system has adapted to meet the needs of society, and the nation has invested in major advances in educational methods, the creation of curriculum, and the building of infrastructure. As a result, students in China's educational system face a high-pressure, competitive environment that demands near-perfect performance (Birkeland & Grindheim, 2021). This dedication to academic and professional excellence is closely illustrated in a national college entrance exam, often referred to as the "gaokao''.

The impact of assessment methods on students' engagement and learning experiences throughout the educational process is profound. These methods are employed to determine students' understanding of content and gauge their progress (Ren, 2022). Assessment is about more than just evaluation; it is about giving teachers and students valuable feedback. Providing constructive criticism to students serves as a mechanism for growth by allowing students to see where they are and how they can improve. A significant amount of research has suggested that the type of assessment significantly influences student engagement and motivation (Dulloo et al., 2023). Higher levels of engagement are associated with assessment methods that are challenging, meaningful, and closely matched to the learning goals. Well-designed assessments can often encourage students to actively shape their own learning, thus cultivating their opportunities to learn (Gilbert et al., 2009).

While summative evaluations aim to audit student accomplishment, formative assessments cultivate self-directed examination. When pupils direct their own instruction, they establish a feeling of possession and duty over their erudition. Provided the opportunity to participate in assessment procedures, students may be inspired to energetically participate in the subject at hand through reiterated modulation and reflection on understanding (Pitic & Irimiaş, 2023). Assessments designed for proceeding feedback promote a culture of perpetual progress and self-guided examination. Pupils can utilise these tests to assess and customise their study methods, ultimately ameliorating their scholarly triumphs (Li et al., 2023). The execution of a real-time comment loop nurtures increased student involvement in the pedagogic process, resulting in enhanced erudition results. Assessment procedures have the potential to either reduce or heighten students' levels of stress and anxiety. Whether increasing apprehension through regimented testing or alleviating worry by focusing on the educational experience itself, the methodology makes all the difference.

Exams standardised to a single measure induce strain and potentially hinder comprehension, as recent research shows. In contrast, evaluations emphasising mastery over marks allow pupils to centre on understanding without concern for performance, letting learning flourish free of graded angst. The process can also develop critical thinking. Assignments involving essays, analyses, or presentations compel students to inspect, judge, and apply what is gained. Demanding synthesis and perspective, such duties inspire deeper involvement and growth by challenging fresh perspectives and organising insights, as one study highlights. It is imperative that we acknowledge individuals' diverse proclivities and styles of acquiring and implementing knowledge (Sanfo & Malgoubri, 2023).

Osborne et al. (2022) recently carried out a study in which they examined the relationship between evaluation procedures, student engagement, and learning outcomes. Research in education has long been interested in uncovering how different forms of evaluation affect students' participation and learning. In this intersection of the literature, sets of often distinct research methodologies and scenarios have converged and played their part. For example, Singh et al. (2024) study of how traditional evaluation techniques like standardised tests and end-of-term exams affect students' participation and learning outcomes. In these studies, the dominant discourse concerns the stress and anxiety associated with high-stakes assessments and their potentially deleterious effects on engagement. There is a growing recognition that traditional assessment frequently does not align with effective approaches to learning, and researchers have drawn attention to project-based assessments, often utilised in problem-based learning and inquiry-based education (Louw & Deacon, 2020). This study considers how these assessments might offer opportunities for deep engagement, critical analysis, and applied knowledge.

While earlier research has provided the much-needed insights into the relationship between assessment methods and student engagement and learning outcomes, nevertheless, there are still important gaps well-worthy of further exploration. Notably, of the existing literature, there has been limited account into the potential moderating role that teacher assistance might have on the relationship. Particularly, what is next to non-existent is empirical literature offering insight into the ways that teacher assistance might impact upon the relationship between student engagement and learning in relation to assessment method (Aukerman & Chambers Schuldt, 2021; Melzi et al., 2023). Further exploration of the critical link between teacher support, assessment methodologies, and student outcomes is considered necessary. The research aims to explore the relationship between assessment methodologies, teacher support, student engagement, and learning outcomes in the context of music education. The primary aim is to address a significant gap in the research literature by examining the role of teacher support in moderating the relationship between different assessment methods and their influences on student engagement and learning outcomes.

The implications of this study are significant and can revolutionise educational practices. The complex relationships introduced between assessment methods, teacher support, student engagement, and learning outcomes would be of interest to educators and may help them improve their assessment techniques and cultivate a supportive and inclusive learning environment while also promoting diversity in music education. In addition, the examination of the literature in both the findings and methods sections should prove beneficial to music educators seeking to improve the creative and skill development components of their teaching. Finally, the method used to address these research questions stands to make a substantial contribution to educational research both within music and throughout all other academic fields, as it provides a viable framework for studying similar phenomena.

2. Literature Review

2.1 Assessment Methods and Student Engagement

Active student engagement is crucial for optimal learning in any educational setting. Active class participation is correlated with improved academic performance, as it enhances material retention and promotes active learning. The methods employed for classroom assessments

significantly influence student engagement. Assessment techniques have a significant impact on students' learning process, as they both measure their knowledge and abilities and shape their level of engagement. Recent research indicates that utilising alternative methods, such as project-based assessments, peer reviews, and formative assessments, can significantly enhance student engagement. While rote memorization and multiple-choice testing have traditionally dominated assessment practices, a more constructivist approach focusing on deeper learning has increasingly taken hold (Martí-García et al., 2020). The degree of alignment between assessments and stated objectives plays a pivotal role in captivating student interest, as learners become more engaged when evaluation methods mirror the conceptual aims of the course and promote comprehension over simple reproduction (Osborne et al., 2022). Additionally, timely feedback that guides progress is paramount for maintaining student commitment to learning. As Abichandani et al. (2023) have underscored, supportive responses that identify strengths and opportunities for growth can reinforce motivation, leading students to feel more invested in refining their understanding through the learning process. However, high-stakes end-of-term exams often provide scant feedback, thereby jeopardising continued dedication if students perceive assessments as disconnected from learning or unhelpful for development.

2.2 Assessment Methods and Student Learning

Examinations and quizzes, lengthy essays and semester-long projects, peer critiques of written work - all serve as methods by which academia evaluates its students. The chosen assessment strategy profoundly impacts the learning process itself. Experts assert that diverse evaluation techniques significantly influence pupils' engagement and thinking patterns, ultimately affecting their comprehension of material (Fisher et al., 2022). As Allen and Morere (2020) confirmed, ensuring harmony between assessment means and desired educational results is crucial to cultivating fruitful student learning. When assessment tactics are intentionally intertwined with stated objectives, learners tend to focus first on truly understanding core concepts and developing key abilities, not just on achieving a satisfactory result by any means. The alignment promotes a dynamic that enables individuals to experience larger learning moments that stick with them for the long run. Ongoing feedback that continually improves student learning is enhanced through formative assessment techniques (Lapitan Jr et al., 2023). Examples of these assessment techniques include quizzes, peer reviews, and self-evaluation, which help individuals know their strengths and weaknesses, modify their study techniques, and see more clearly the subject matter in question (Herndon et al., 2013). The incorporation of these continual formative assessments into their learning process assists individuals in efficiently retaining information over an extended period.

2.3 Teacher Support as Moderator

The concept of teacher support encompasses several dimensions, for example, emotional, instructional, and organizational. Several studies have found that students are more engaged in their learning when they perceive higher levels of support from teachers (Gomes & Fleer, 2020). Creating the opportunity for cooperation, offering constructive criticism, and giving clear directives all make for a supportive environment that is a good match for some of the affective and interactional modes of engagement that have been documented. Teachers also play a crucial role in building a sense of community, which is in turn a significant factor in students' motivation and engagement (Teig & Nilsen, 2022). The idea of teacher support as a mediator in the relationship

between assessment types and student engagement adds a different level of intricacy to the classroom space. Teachers can use that support to coincide with the specific types of assessment techniques they use in their classroom, in turn influencing the level of student engagement for the better (Vellanki et al., 2022). Seeking support from a teacher can make the learning experience much better, especially with formative evaluations; through the provision of timely and constructive feedback, educators can help students uncover their strengths and areas of needed improvement (Schick et al., 2021). This type of support not only aids students in their educational journey but can also serve as a match in the powder keg of them actively engaging with content, their resolve to continuously do so, and student determination (Caldwell et al., 2020). Teachers can create an environment for learning that cultivates students' participation by making the evaluation explicit and by addressing students' concerns. Teachers' assistance in project-based evaluations can include several responsibilities, such as promoting collaborative work, giving them their expert guidance, and creating spaces for reflection. When teachers show genuine interest in the efforts made by their students, "learning becomes authentically engaging" (Pap et al., 2021). The role of teacher assistance is crucial in bridging assessment techniques and students' participation and in covering the specific requirements of each assessment. Teachers may be able to conjoin their highest level of support with the assessment being used, which in turn may result in higher academic performances from their students (Bhattacharya, 2022). While the existing literature is very informative, there is a need to understand more about the finer details of their relationships. This will allow educators to obtain more specific suggestions for the reform of their instructional practice.

Teacher support includes emotional support, educational support, and organisational support and has been proven to be a strong predictor of student learning (Boyd, 2023). Teachers who assist and support students when required significantly create a positive learning environment (Subban et al., 2022), in which student motivation and engagement levels are high. Furthermore, teacher support has been found to significantly affect student-motivated engagement in relation to a range of tasks and assessment methods (Subban et al., 2022). Teacher support is an active premise of student learning and assessment methods.

This relationship has the potential to promote student engagement and aid learning (Zhu, 2023). Explore the differences in teacher assistance in different types of assessment: Teacher assistance is crucial to the successful integration of formative assessments, which aim to provide continual feedback to inform improvements. Teachers provide immediate and informative feedback to students, which helps students recognise their strengths as well as those areas that need further development (Marks, 2021). Traditional exams are often associated with feelings of pressure and stress, so a different kind of support is needed from teachers in this instance. Teachers can provide support by helping students develop effective study skills, providing clarification about assessment requirements, and creating an environment that is welcoming, supportive, and encouraging for students in this way (Gomes & Fleer, 2020). Clarifying the assessment process and addressing their concerns can help teachers create a better learning atmosphere and improve student engagement.

3. Top of Form

3.1 Theoretical Framework and Hypothesis Development

Self-Determination Theory (SDT) posits that the concepts of autonomy, competence, and

relatedness are essential factors in motivating and engaging students. SDT also posits that there is a relationship between assessment processes and techniques, student engagement, and learning outcomes. The concept of autonomy holds that students must perceive that they can make choices and have control over their learning (Haw & King, 2022). In line with this theory, different assessments can promote or inhibit the autonomy of music students. This can impact the level of engagement of students in music education. Assessment techniques such as self-assessment and project-based evaluations, which are consistent with SDT, might offer students more autonomy than traditional written assessments. Lee et al. (2020) suggest that this theory provides a framework for studying the effects of autonomy on student engagement and learning outcomes in music programs. Competence is a key element of SDT, underscoring the importance of students feeling capable and proficient in their academic endeavours. The assessment methods used can impact students' feelings of competence profoundly. Research has suggested that using formative assessments, which allow for feedback and improvement, can promote students' perceived competence (Chiu, 2022).

One of the key parts of SDT highlights the importance of the relationship between students and their teachers for motivation and their internalisation of values. Students' feelings of relatedness to their teachers and peers are also the third and final basic psychological need in SDT. Therefore, one scholarly gap that has been identified in music education is how teacher support changes the situation to impact engagement and learning with the different assessment approaches (Mendoza et al., 2023). It seems feasible to deduce that teachers' support and guidance are important in fostering intrinsic motivation among students in music (Cai & Tang, 2021). Also, if they did not have control over their rehearsals, students' basic psychological need for autonomy would not be satisfied. Finally, can different ways of assessing students' learning outcomes be brought into the theory? That is, how can teachers choose among a variety of ways to assess students that pay careful attention to students' needs for autonomy, competence, and relatedness to enhance their own motivation and engagement?

H1: *There is a significant relationship between the assessment method and the student engagement.*
H2: *There is a significant relationship between the assessment method and the student learning.*
H3: *Teacher support moderates the relationship between the assessment method and student engagement.*
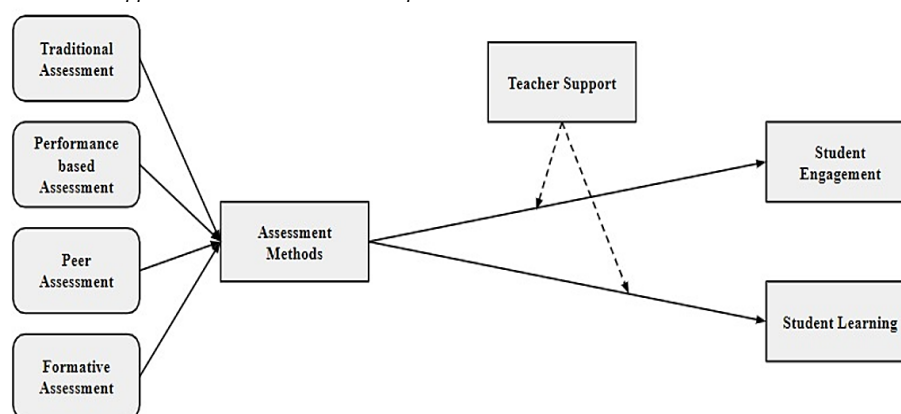**H4:** *Teacher support moderates the relationship between the assessment method and the student learning.*

Figure 1: *Conceptual Framework.*

4. Methodology

The research methodology employed in this study was quantitative. This study design was chosen in order to systematically investigate the relationships between teaching methods, learning outcomes, and engagement in music education within the unique context of Lyuliang University. By investigating a series of hypotheses in this way, this design enables the researcher to draw significant conclusions. As is the case in this study, the focus is on a specific group of music students at Lyuliang University. This demographic is of interest because these students have unique educational experiences that may significantly impact their learning outcomes and engagement; these are the nuances of what this research aimed to understand. A stratified random sampling approach was employed to ensure that the sample of the study accurately represented the whole student population (Afthanorhan & Ahmad, 2013). This methodology was utilised to ensure that each of the strata, or academic year levels, was equally represented, allowing for reduced biases and increased overall representativeness of the sample.

Initially, of the entire population of music students, 550 individuals were randomly chosen. The size of the sample was contrary to the need for statistical importance, particularly with respect to the study objectives. Following this, only the responses of 375 participants were considered. A screening process was entered into based on the affirmation of interest and the specificity of all responses for reliability and quality of results (Hair et al., 2012). The procedure employed is a standardised questionnaire. The questionnaire was developed to cover a variety of areas related to concepts such as students' experiences with the different techniques of assessment, their view of teacher support, and their own engagement and learning progress. This was done through a mixture of Likert-scale and closed-ended questions; thus, the process was one of mixed quantitative and qualitative responses. The process of data collection, in total, took five months, starting in June 2023 and ending in November 2023. Applying this to this student sample will completely capture student experiences while minimizing bias in relation to the academic semester.

The collected data were subjected to an exhaustive statistical analysis using the SPSS programme, which is commonly used in social sciences research. The use of the SPSS Process macro to conduct mediation and moderation analysis served as the investigation's main guiding principle. Adopting this advanced analytical approach and methodology was very helpful in finding important connections between student engagement, teacher support, learning outcomes, and assessment methods. This helped to rigorously test the proposed hypotheses. Throughout the study process, the ethical underpinnings were of paramount importance. The research participants were afforded the utmost ethical care by being granted informed consent that contained clear information on the study and the use of their responses. This extended to the observance of the rights and confidentiality of participants and a firm commitment to the preservation of the anonymity of the respondents. Furthermore, the research protocol obtained institutional review board approval, which entailed adherence to established and stringent ethical research practices.

5. Result

5.1 Descriptive Statistics

The summary of descriptive statistics for the four major variables assessment methods,

teacher support, student engagement, and student learning, based on a sample size of 375 respondents, can be found in Table 1 and Figure 2. The mean scores unveil the primary patterns of the ratings for each variable. Based on the data, it can be inferred that the assessment methods received a positive overall rating of 3.86 from the respondents. The standard deviation numbers reveal the extent of dispersion around the means. In this case, the Assessment Methods indicate a spread of approximately 1.042. The distributions for all variables exhibit a negative skew, with skewness values such as -0.852 for Assessment Methods, indicating a tendency for higher evaluations. In addition, the kurtosis values for the Assessment Methods at 0.223 suggest that the distributions are somewhat platykurtic. This means that they have lighter tails and flatter peaks compared to a normal distribution. The average rating received by Teacher Support was 3.79, which was noticeably lower than Assessment Methods. However, it exhibited a similar negative skewness and platykurtic distribution. The average rating for Student Engagement was higher, with a mean of 3.99, while Student Learning closely mirrored Assessment Methods, with a mean of 3.86. The variables exhibited negative skewness and moderately platykurtic distributions, which aligns with the overall trend of respondents assigning higher scores. The descriptive statistics offer valuable insights into the perceived effectiveness and satisfaction levels in the evaluated areas, which can be beneficial for future research and interpretation.

Table 1

Descriptive Statistics

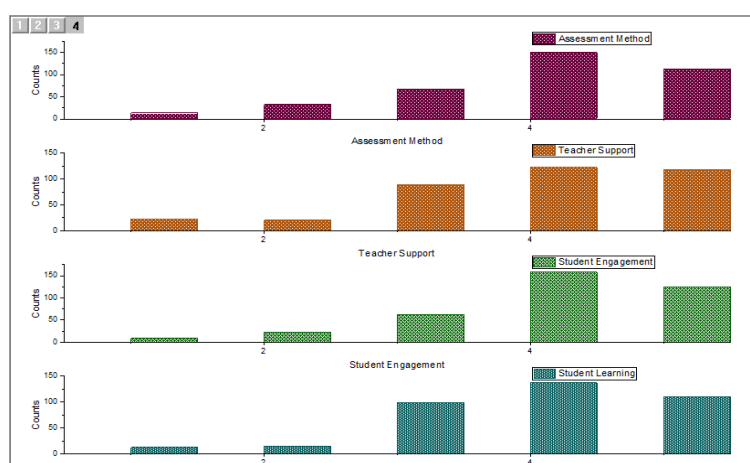|	N	Mini	Maxi	Mean	Std.	Skewness	Kurtosis
Assessment Methods	375	1	5	3.86	1.042	-0.852	0.223
Teacher Support	375	1	5	3.79	1.132	-0.820	0.096
Student Engagement	375	1	5	3.99	0.963	-0.948	0.670
Student Learning	375	1	5	3.86	0.995	-0.740	0.358

Figure 2: *Descriptive Statistics Visualization.*

5.2 Reliability Analysis

Table 2 displays the results of a reliability analysis conducted on four variables: assessment

methods, student engagement, teacher support, and student learning. The reliability analysis evaluates the dependability and internal consistency of the measurement scales used for each variable. The number of items, outer loadings, and Cronbach's alpha coefficients for each variable are provided. The eight items (AM1 through AM8) comprising Assessment Methods have external loadings ranging from 0.511 to 0.841. Greater loadings indicate a higher level of precision in the measurement. The numbers presented here indicate the level of correlation between each individual item and the overarching construct. The overall Cronbach's alpha coefficient for the Assessment Methods is 0.893, which suggests a strong level of internal consistency. By demonstrating that the items in the Assessment Methods variable consistently measure the same underlying construct, the credibility of the assessment instrument is enhanced. The Teacher Support scale, comprising of five items (TS1 through TS5), demonstrates outer loadings ranging from 0.523 to 0.843.

The internal consistency of Teacher Support is considered good, as evidenced by the Cronbach's alpha coefficient of 0.764. The result of 0.764, although slightly lower than the alpha for Assessment Methods, still suggests a satisfactory level of reliability in measuring the latent variable of Teacher Support. The construct of Student Engagement consists of six components (SE1 to SE6), with outer loadings that range from 0.616 to 0.774. The Cronbach's alpha coefficient of 0.881 indicates strong internal consistency, which supports the reliability of the assessment scale. It can be inferred that the items effectively assess the underlying concept of Student Engagement as a whole, in a reliable manner. Student Learning consists of five components (SL1-SL5), with outer loadings ranging from 0.626 to 0.723. The Cronbach's alpha coefficient for Student Learning is 0.860, indicating a strong level of internal consistency. The items in the Student Learning variable effectively assess the desired construct, thus enhancing the measurement instrument's reliability.

Table 2

Reliability Analysis

Variable	No of Items	Items	Outer Loading	Cronbach Alpha
Assessment Methods	8	AM1	0.743	0.893
		AM2	0.511	
		AM3	0.841	
		AM4	0.817	
		AM5	0.711	
		AM6	0.759	
		AM7	0.688	
		AM8	0.751	
Teacher Support	5	TS1	0.805	0.764
		TS2	0.776	
		TS3	0.813	
		TS4	0.523	
		TS5	0.843	
Student Engagement	6	SE1	0.616	0.881
		SE2	0.621	
		SE3	0.774	
		SE4	0.718	
		SE5	0.754	
		SE6	0.697	
Student Learning	5	SL1	0.716	0.860
		SL2	0.661	
		SL3	0.723	
		SL4	0.626	
		SL5	0.653	

6. Correlation Analysis

The correlation analysis results for the variables Assessment Methods, Teacher Support, Student Engagement, and Student Learning can be found in Table 3 and Figure 3. The sample size (N), significance levels (Sig.), and Pearson correlation coefficients are provided for each pair of variables. The Pearson correlation coefficient between Assessment Methods and Teacher Support is 0.617, indicating a statistically significant relationship at the 0.01 level (1-tailed). There is a moderately strong positive correlation between the two variables. The ratings for Teacher Support generally show a correlation with the scores for Assessment Methods, both increasing or decreasing together. In line with the findings, a Pearson correlation coefficient of 0.552 (p 0.01) demonstrates a statistically significant positive association between Assessment Methods and Student Engagement. There appears to be a correlation between the increase in Assessment Methods scores and the corresponding increase in Student Engagement scores, as well as a decrease in one leading to a decrease in the other. There is a significant positive correlation between Teacher Support and Student Engagement, with a Pearson correlation coefficient of 0.601 at a 0.01 level of significance. As Teacher Support increases, Student Engagement also increases, suggesting a positive correlation between the two factors. In addition, there is a significant positive correlation between Student Learning and Assessment Methods (r = 0.512, p 0.01), Teacher Support (r = 0.531, p 0.01), and Student Engagement (r = 0.483, p 0.01). The results suggest that an increase in scores for Assessment Methods, Teacher Support, and Student Engagement is associated with higher scores for Student Learning, indicating a positive correlation between these factors.
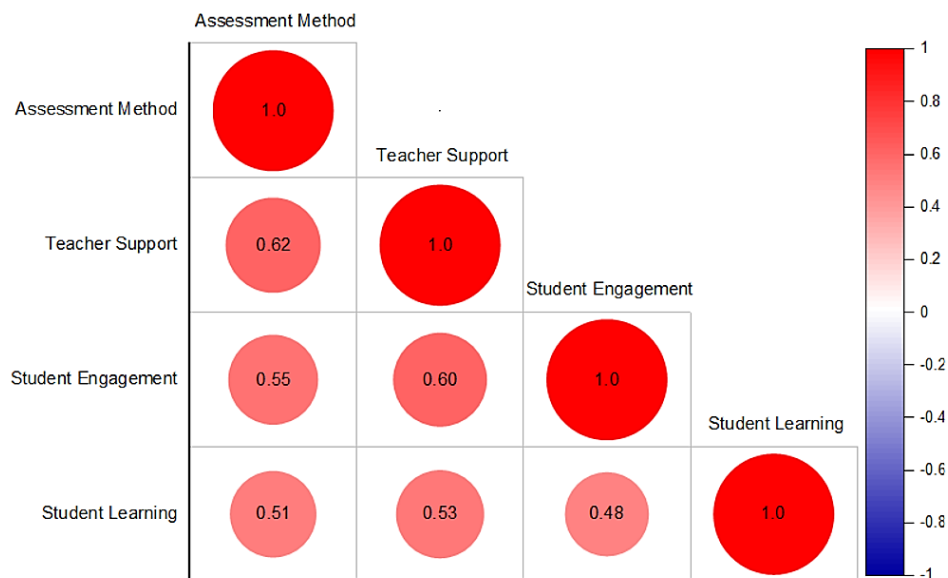

Figure 3. *Correlation Matrix*

Table 3

Correlation Analysis

		Assessment Methods	Teacher Support	Student Engagement	Student Learning
Assessment Methods	Pearson Correlation	1			
	Sig. (1-tailed)				
	N	375			
Teacher Support	Pearson Correlation	.617**	1		
	Sig. (1-tailed)	.000			
	N	375	375		
Student Engagement	Pearson Correlation	.552**	.601**	1	
	Sig. (1-tailed)	.000	.000		
	N	375	375	375	
Student Learning	Pearson Correlation	.512**	.531**	.483**	1
	Sig. (1-tailed)	.000	.000	.000	
	N	375	375	375	375
**. Correlation is significant at the 0.01 level (1-tailed).					

7. Direct Hypotheses Testing

The regression analysis results are presented in Table 4. It provides details on the hypotheses, beta coefficients, T and P values, and the conclusions drawn regarding the acceptance or rejection of each hypothesis. The investigation centres around Assessment Methods (AM), Teacher Support (TS), Student Engagement (SE), and Student Learning (SL). Based on the statistical analysis, the first hypothesis (H1) is confirmed, indicating a correlation between assessment methods and student engagement. The beta coefficient of 0.511, t value of 12.797, and p value of 0.000 indicate strong support for this hypothesis. The data indicates a strong and positive correlation between assessment methods and student engagement, offering compelling evidence in support of h1. Based on the findings, the second hypothesis (H2) has been validated, indicating a clear link between assessment methods and student learning. The beta coefficient is 0.489, the t value is 11.523, and the p value is 0.000. These results indicate a statistically significant positive connection between assessment methods and student learning. Therefore, H2 is deemed acceptable.

When it comes to association effects, H3 claims that when teacher support and assessment methods are utilized simultaneously, they influence student engagement. There is a statistically significant positive relationship between teacher support and assessment methods and student engagement (beta = 0.098, t = 3.583, p = 0.004). Furthermore, H4 suggests that the level of teacher support and the effectiveness of assessment methods have a significant impact on student learning. Research findings indicate a noteworthy correlation between teacher support and assessment methods and student learning. The statistical analysis reveals a positive relationship (beta = 0.089, t = 2.721, p = 0.006). This supports the validity of the hypothesis.

Table 4

Regression Analysis

Hypothesis	Relation	BETA	T value	P value	Decision
H1	AM -> SE	0.511	12.797	0.000	*Accepted*
H2	AM -> SL	0.489	11.523	0.000	*Accepted*
H3	TS*AM -> SE	0.098	3.583	0.004	*Accepted*
H4	TS*AM -> SL	0.089	2.721	0.006	*Accepted*

Note: AM= Assessment Method, TS = Teacher Support, SE = Student Engagement, SL= Student Learning

8. Discussion

The study aimed to analyse and comprehend the complex correlation among student learning experiences, instructor support, and evaluation techniques. The study sought to examine the effects of various evaluation methods on learning outcomes and student engagement. Furthermore, the study investigated the influence of teacher support on the relationship, serving as a moderator. The study aimed to contribute to the fields of education and pedagogical research by addressing these goals. It sought to provide valuable insights into effective teaching strategies that enhance student engagement and learning. The first hypothesis suggests that the evaluation method employed significantly influences student engagement. The finding is supported by previous literature that highlights the impact of evaluation systems on student involvement. For instance, Chowdhury (2023) research has investigated how different assessment types elicit different cognitive processes and levels of engagement in students. Over the years, research has consistently found that conventional assessment methods, such as multiple-choice tests, generally promote surface learning and may not effectively engage students in study material (Clarke & Kiropoulos, 2021). Conversely, certain assessment processes, such as formative or project-based evaluations, aim to promote increased engagement through the encouragement of critical thinking, active learning, and the application of knowledge (Vellanki et al., 2022). Studies have found that the choice of evaluation can significantly influence student engagement and interest in the learning process.

The second hypothesis suggests that the method of assessment has always had a significant impact on student learning outcomes, in that while conventional assessment approximates a multiple-choice exam that favours memorization and superficial understanding, '…the primary focus leaned towards factual memory traces, which may or may not facilitate deeper comprehension or analysis' (LaForett & De Marco, 2020). Consequently, students experiencing these inspections are more inclined to '…memorise sufficient information to pass and take these exams with the goal of a high score in mind', a form of learning that is more concerned with external motivation and grades than actual cognitive acquisition. Alternative assessments such as formative and project-based assessments serve to foster learning, critical thinking, and the practical application of acquired knowledge (Mtuy et al., 2019), with some research even suggesting '…that the type of assessment affects students' strategies for learning'; Yeldham and Gao (2021) found that when taking traditional exams, students were more likely to engage in last-minute cramming or rely on mnemonic techniques, as opposed to alternative assessments that aim to provide students with a comprehensive and continual learning experience over and above "exam pressure"..

Based on the third hypothesis, the strength of the relationship between student involvement and the method of assessment may be affected by the level of support provided by the teacher. Collaboration, constructive criticism, and guidance are all strengths of a supportive teacher's learning environment. More so, creating a community of learners impacts engagement and motivation (Ginsberg & Wlodkowski, 2019). Teacher support could be critical when evaluating the act of participation via the method of assessment. One example is formative assessment, where teacher support is required. Children benefit from immediate and instructive feedback that illuminates areas of strength and needed growth (Melzi et al., 2023).

There is evidence that feedback supports students in learning and the engagement they display with the subject matter, as well as their commitment to a lifelong future of learning.

Student engagement is significantly improved when formative evaluations are aligned with teacher support. Teacher support is crucial, particularly when current evaluations are typically associated with stress and anxiety. "Teachers can create a supportive and motivating classroom climate, provide students with effective learning strategies, and clearly communicate about the instructional goals and criteria for success" (Zhang et al., 2022). Teachers can create a potentially better learning experience by addressing students' fears and explaining evaluative processes clearly.

In the fourth hypothesis, the function of teacher support is also explored as a moderating variable within the link between assessment techniques and student learning. Supportive teachers build a favourable learning environment by providing direction, constructive feedback, and opportunities for cooperation. Moreover, they also establish a sense of belonging, which is essential to students' motivation and involvement (Yeldham & Gao, 2021). Teacher support is critical in shaping student learning outcomes in the assessment technique setting. In formative assessments, teacher assistance is vital to give timely and constructive feedback to allow students to recognise their strengths and areas for improvement (Melzi et al., 2023). The teacher's support for students at every step of the way encourages students to internalise and become deeply involved with the matter. Therefore, the feedback leads to increased commitment and perseverance to serve continual maturation and refinement. Effective teacher support has a crucial role in the enhancement of student learning outcomes, especially when it is combined with formative assessments (Ardiç & Çiftçi, 2019). The role of the teacher makes a difference regarding traditional tests, which relate to high stress and anxiety. The teacher can create motivation and support, which can ease stress, guide students with effective study strategies, and make the assessment target transparent (Vellanki et al., 2022). The clarification of the assessment process on the part of the teacher serves to address students' states of mind and to put their minds at rest. In conclusion, making the evaluation process transparent may both improve the learning environment and increase learning results in these ways.

9. Conclusion

This study examined the interplay between assessment methods, teacher support, and student academic performance and engagement. This study garnered immeasurable insights into the forces that shape the educational arena by exhaustively examining the existing literature and testing hypotheses. The aim of the study was to interrogate the impact of different assessment methods on student engagement and learning, bearing in mind the role of teacher support in these interrelationships. A review of the literature revealed several results that are in line with the Self-Determination Theory (SDT). This is a school of thought that says autonomy, competence, and relatedness are important for developing intrinsic motivation and engagement. Studies have exemplified how the selection of assessment methods has a significant bearing on student engagement and learning outcomes. While traditional assessments like multiple-choice tests tend to nurture superficial learning, alternative modes of assessment such as formative and project-based evaluations tend to undergird a deeper level of engagement and more meaningful learning experiences. The study underscored how teacher involvement in these relationships was a key moderator. Teacher support, which encompasses educational, emotional, and organisational components, has been shown to drastically affect student engagement and learning outcomes. Research has demonstrated that teacher support can either magnify the positive effects of formative and project-based assessments or buffer the negative outcomes of high-stakes traditional assessments.

10. Implications

10.1 Practical Implications

This means that there are several important implications of this research for educators, curriculum developers, and legislators. This work emphasizes the need for a more diverse approach to the assessment techniques included in instructional procedures. These might include traditional exams, ongoing assessments, and project-based evaluations to speak to the ways that students learn. It allows educators to create a learning context that is more inclusive and engaging.

Teacher training and professional development programmes should place the greatest emphasis on effective teaching practices and the development and implementation of varied assessment opportunities that provide teachers the skills and knowledge to create supportive learning environments and provide rigorous, relevant, and respectful feedback, with the greatest impact on student outcomes. The investment in preparing teachers to recognise student autonomy and intrinsic motivation can increase the quality of education for children and provide additional support for an instructional method that maximises student engagement, and this instructional method has the distinguished honour of doing so. Granting students, the autonomy to choose to demonstrate their learning and actively participating in the assessment process equips students with the autonomy and intrinsic motivation required of the research experiences that are most beneficial to earning degrees. It is a little more responsible to mention that an instructional method that increases the sense of control and the value of an education with the best results is the greatest imitation. Creating increased authority and autonomy can significantly increase student engagement and academic performance, reducing the number of distractions that reduce student achievement outcomes. A quick and efficient rule cannot defeat this. Through specific, constructive, and timely guidance, the students are guided to a life on the learning path, and the facilitation of the teachers holds the greatest impact on student outcomes.

10.2 Theoretical Implications

The framework of Self-Determination Theory elucidates the connections between student learning, teacher assistance, and assessment techniques in a robust manner. This investigation provides further substantiation for the relevance and practicality of SDT. The discoveries of this research align with the principles of SDT, emphasising the significance of autonomy, proficiency, and affiliation. These conclusions bolster the practical implications of the study. One examination discovered that the association between assessment methods and student participation and learning is influenced by teacher support. This study underscores the intricate essence of teacher assistance in the learning process and carries considerable theoretical consequences for the field of educational psychology. The importance of teacher support in enhancing or mitigating the effects of assessment systems on student engagement and learning is highlighted, contributing to the progression of our learning theory. This research enhances student comprehension and learning in a variety of innovative ways. While cognition and emotion greatly impact learning, fostering engagement necessitates varied support. A conducive environment that embraces individual intricacies enhances motivation. Assessment-aligned goals create meaningful experiences, as varied evaluation-connected objectives underscore the importance of curriculum and teaching design. Challenging learning considers diverse support crucial for engagement, as environments embracing complexities motivate differently. In conclusion, tailored evaluation connecting

aims creates impactful experiences, and assessment matching goals emphasise the importance of curriculum and instruction.

10.3 Limitations

While the examination provided insightful findings, its generalizability remains constrained. Each learning environment contains cultural nuances that shape the interplay between evaluation strategies, instructor assistance, and academic growth. To validate how these interconnections manifest differently, more studies must recreate the effort across an assortment of educational settings. The selected literature, though timely, heightened the risk of discrepancies in quality and approaches across reviews. Variances in the underpinning rigour influenced the conclusiveness of the results. Additionally, the single research methodology narrowed the scope of understanding. Future analyses may broaden perceived impacts by fusing data from mixed-method investigations. Only through corroborating initial discoveries with diversified investigational designs will the applicability amplify.

Continued exploration of the complex network between assessments, support systems, and student outcomes warrants persistent, multi-faceted evaluation. While further exploration into the intertwined bonds tying evaluative processes, instructor aid, and learner accomplishments can help unravel lingering questions, temporal issues also stand as obstacles. Past literature offers frozen frames that fail to capture education's fluid nature, though significance remains. Where classrooms once were, innovations in pedagogy and assessment now emerge as constant tides, shaping new shores left uncharted by stagnant studies. This work risked becoming adrift from currents carrying students and teachers alike into reimagined educational seas. Only continued voyages retaining context's coastal changes can better navigate understanding's future and steer clear of irrelevance's reefs. Advancing research demands mapping education's evolving ecosystems and adjusting sails to the winds of progress.

11. Future Directions

Further investigation could potentially encompass nuanced cross-cultural qualitative analyses. Large-scale mixed-methods studies across diverse international contexts may provide a textured understanding of how assessment practices and instructor involvement interactively impact engagement and achievement differently depending on location. Similarly, deep empirical dives into specific communities could offer localised insights into cultural relevance and the transferability of findings. Moreover, virtual ethnographies exploring online learners' experiences on an array of digital platforms could yield context-sensitive perspectives about technology's role amid transformation. Longitudinal research designs tracing changing assessment techniques, evolving teacher support, and fluctuating results over extended periods may reveal intricate developmental patterns. In the same way, meta-analyses that use statistics to combine a lot of relevant empirical work can systematically bring together new findings, find intricate connections between things, and get a big picture of how complicated an association is. Finally, studies that look at many factors, such as assessment methods, teacher support, student outcomes, cultural settings, technological environments, and time, may be able to meaningfully change the way things are done in a world that is always changing.

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