

Exploring the Relationship of Learning-Centered Leadership, Assessment Conception, and Professional Learning in Malaysian Lecturers' Assessment Practices

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Abstract –This study addresses the interplay between learning-centered leadership (LCL), professional learning, assessment conception of Malaysian lecturers towards assessment practices grounded in Social Cognitive Theory. By investigating the potential intermediary role of assessment conception and professional learning, the research aims to deepen our understanding of the complex dynamics shaping lecturers' perspectives on assessment practices within the context of LCL. Utilizing a quantitative approach, this research employs Structural Equation Modeling (SEM) and utilizes SPSS version 26.0 for the analysis of data. The study involves 400 lecturers drawn from different Malaysian universities, chosen through a multistage sampling method. These individuals responded to a thorough questionnaire assessing their views on LCL, professional learning, assessment conception and assessment practices. The analysis involved the use of SEM AMOS version 24.0 to examine both the direct and indirect connections among the variables. The results indicate that professional learning and assessment conception act as full mediators in the link between LCL and assessment practices. Assessment practices explain 49% of the overall explained variability by learning-centered leadership, professional learning, and assessment conception. These findings have significant implications for both educational institutions and policymakers. Cultivating professional learning within academic environments can enhance lecturers' assessment skills, thereby positively impacting their teaching methods. Acknowledging the crucial role of LCL and rightful assessment conception can guide the effective implementation of professional development programs, ultimately improving lecturers' approaches to assessment.

Keywords – Learning-centered Leadership, Professional Learning, Assessment Conception, Assessment Practices

I. INTRODUCTION

In the dynamic landscape of education, the effectiveness of educational leadership and the enhancement of assessment practices are central concerns. Over the past few years, there has been an increasing focus on learning-centered leadership, which places a strong

emphasis on establishing settings that promote student learning and achievement (Husien et al., 2022). Simultaneously, the field of education has witnessed a renewed focus on assessment practices aimed at promoting student learning, rather than merely measuring outcomes.

Assessment practices which include a diverse range of methods and tools to gauge student progress have evolved significantly in response to changing educational goals and the recognition that assessment can be a powerful driver of learning when approached thoughtfully (Lubbe et al., 2021). It is within this context that this study explores the intricate relationship between learning-centered leadership, attitudes toward assessment practices, and the role of professional learning as a potential mediator.

LCL is characterized by its commitment to promoting student engagement, motivation, and achievement, has been lauded for its potential to transform educational institutions. Meanwhile, attitudes toward assessment practices play a critical role in shaping how educators design, implement, and perceive assessment methods in their classrooms. The intersection of these two factors offers a fertile ground for research, as it is essential to understand how leadership approaches can influence the way educators approach assessment, ultimately affecting student learning outcomes.

In the pursuit of enhancing assessment practices and fostering a culture of continuous improvement, professional learning emerges as a crucial component. Professional learning provides educators with the tools, knowledge, and skills necessary to adapt to changing educational paradigms and refine their teaching practices (Caena & Redecker, 2019). However, the extent to which professional learning mediates the relationship between learning-centered leadership and the conception of assessment practices remains an underexplored area in the educational research landscape (Rönnström, 2022).

This study aims to address this gap in the literature by investigating the potential mediator role of professional learning in the relationship between learning-centered leadership and educators' conception toward assessment practices. By examining these interconnected factors, we seek to shed light on how leadership practices influence educators' perspectives on assessment, and how professional learning may facilitate this process.

Understanding these dynamics is important for educational leaders, policymakers, and practitioners alike. Insights gained from this study can inform the development of targeted interventions and professional

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development programs that promote effective leadership, foster positive attitudes toward assessment, and ultimately contribute to improved student learning outcomes. As the educational landscape continues to evolve, this research endeavor holds the promise of advancing our knowledge and guiding evidence-based practices in education.

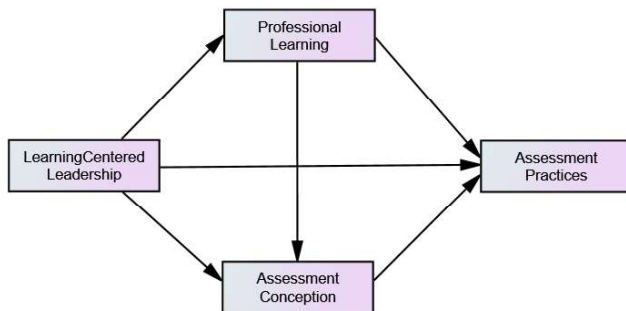


Figure 1. Conceptual framework of the study

II. PROBLEM STATEMENT

Assessment practices are seen as a key driver for educational reforms worldwide which have been underscored for their role in informing instruction and enhancing student learning (Alonzo et al., 2023). Research consistently highlights the positive impact of assessment on students' motivation, self-regulated learning, and overall learning outcomes. However, the effectiveness of assessment hinges on how educators perceive, design, and execute assessment activities in their teaching (Addow, 2023). Despite the well-documented benefits, many educators are reluctant to alter their assessment methods, resulting in suboptimal implementation or avoidance altogether.

In Malaysia's higher education system, despite decades of promotion, the integration of assessment practices in classrooms remains inadequate (Damit et al., 2021). Previous research has identified individual factors influencing educators' assessment practices but lacks a comprehensive model of these factors. Hence, this study aims to develop a holistic understanding of how personal and contextual factors shape educators' assessment practices. The findings intend to inform the implementation of effective measures to promote the integration of assessment practices in educational settings.

III. LITERATURE REVIEW

Assessment Practices

The assessment process in higher education has undergone significant changes in recent years, particularly focusing on a student-centered approach. Literature indicates a shift towards assessment methods that prioritize student learning (Boud et al., 2018). Numerous studies emphasize the interconnectedness of assessment and learning, highlighting the significant impact assessment practices have on student learning outcomes (Biggs 2014; Hailikari et al., 2022). It is recognized that teaching methods need to align with

assessment techniques and learning objectives to enhance teaching effectiveness (Biggs 2014). The chosen assessment practices play a crucial role in shaping the quality of learning experiences and influencing students' perceptions of learning (Rawlusk, 2018). Assessment, whether positively or negatively, serves as a motivating factor for students to engage in learning and improve their performance (Takase et al., 2019). Learner-centered assessment practices encourage active student involvement, facilitate feedback mechanisms, promote collaboration between students and faculty, and provide insights into the learning process for educators (Pereira et al., 2022). These practices also equip students with problem-solving skills and prepare them for professional life by applying learning in real-world contexts.

Professional Learning

The weak alignment between intended learning outcomes and assessment practices in sample courses at the end of the semester highlights a common challenge in educational settings (Abu-Hamdan & Khader, 2014). This misalignment underscores the crucial role of professional learning experiences in enhancing educators' assessment literacy. While there is a recognized connection between educators' assessment literacy, their pedagogical practices, and students' achievements, the exact extent of this impact remains a subject of debate in academic literature.

By investing in professional learning experiences that focus on assessment literacy, educational institutions can address the discrepancy between stated learning objectives and assessment methods (Blankenship et al., 2022). Strengthening educators' understanding of assessment principles and strategies not only improves the coherence of assessments but also ensures that they effectively reflect intended learning outcomes. Ultimately, this holistic approach to professional development fosters a more meaningful learning experience for students, accurately gauging their progress and contributing to their overall academic success.

Assessment Conception

Conception is a multifaceted term that extends beyond mere belief, encompassing a complex interplay of cognitive frameworks, mental models, and personal interpretations. While belief typically refers to an acceptance of something as true or real, conception delves deeper into the cognitive processes underlying how individuals perceive, understand, and make sense of the world around them (Thompson 1992).

Educators' conception of assessment significantly shapes their practices particularly within the context of universities where assessment plays a crucial role in evaluating student learning and informing instructional strategies (Brown et al., 2009). Brown's model categorizes these beliefs into four purpose-related categories, providing a framework for understanding how educators approach assessment in higher education settings (Brown, 2008).

In universities where assessment practices are

deeply ingrained in academic culture, educators' conceptions hold significant weight in shaping the learning experiences of students. Fewer studies have focused particularly on academics' conceptions of assessment and the assessment practices in higher education (Postareff et al., 2012). The alignment between educators' conception about assessment and institutional priorities can profoundly impact the nature and effectiveness of assessment practices employed (Harris & Brown, 2009).

While Brown's model offers valuable insights into educators' conceptions of assessment, it's essential to acknowledge potential limitations and alternative perspectives. Some argue that educators' self-reported conceptions may not fully capture the complexity of their beliefs, and external factors such as institutional culture and policy mandates also influence practices. Understanding educators' conceptions is vital for fostering effective assessment practices aligned with the unique educational goals and priorities of universities. Further research should explore the dynamic relationship between these beliefs and assessment practices, offering insights to inform educational policy and practice within higher education institutions.

Learning-Centered Leadership (LCL)

Although LCL shares theoretical roots with principal instructional and transformational leadership, researchers have delineated distinct features of this approach. It emphasizes in enhancing teacher engagement in learning activities and fostering a professional learning community to address student learning needs. This study adopts Liu, et al., (2016) conceptualization which includes four dimensions namely building a learning vision, providing learning support, managing the learning program, and modelling.

In higher education, the pursuit of academic excellence goes hand in hand with effective teaching practices and student-centered learning. LCL emerges as a pivotal framework within this context, serving as a guiding philosophy for academic administrators and department heads to cultivate environments that prioritize student success and support the professional growth of lecturers (Lundqvist et al., 2023).

In the realm of educational leadership, LCL has garnered significant attention for its transformative impact on teaching practices and student outcomes. However, while there exists a wealth of research on LCL within the K-12 school context, the application of this framework in higher education settings remains relatively understudied (Wallo et al., 2024).

Despite the clear parallels between school leadership and leadership within higher education, the unique dynamics of the university environment necessitate a nuanced understanding of how LCL principles manifest and influence lecturer professional learning and student success. This gap in research presents both a challenge and an opportunity for scholars and practitioners alike to explore the potential of LCL in reshaping teaching and learning practices in higher education.

While some studies have begun to explore the role of LCL in higher education, there remains a need for further empirical research to unpack its intricacies and implications. This includes investigations into the effectiveness of LCL initiatives in enhancing lecturer engagement in assessment practices.

In conclusion, while the body of research on LCL in school settings is extensive, there exists a notable gap in understanding its application and impact in higher education. By recognizing and addressing this gap, researchers and practitioners can unlock the transformative potential of LCL to empower lecturers in assessing students, enhance student learning outcomes, and promote academic excellence in universities and colleges worldwide.

The Relationship Between Lcl and Professional Learning

Educational research has increasingly emphasized the pivotal connection between educator professional learning and the quality of instructional practices, ultimately impacting student learning outcomes (Borko, 2004; Wei et al., 2009; Ventista & Brown, 2023). However, questions persist regarding the formation, sustainability, and efficacy of educator learning processes, as well as the essential elements required to support effective professional development (Desimone, 2009; Liu et al., 2016).

Critics have scrutinized traditional training programs, often conducted as external workshops or sessions that educators are mandated to attend. Instead, they advocate for a dynamic, school-based approach to professional learning, emphasizing collaboration and interaction among colleagues (Kwakman, 2003; Opfer & Pedder, 2011; Printy, 2008; Timperley, 2011).

This perspective suggests that educator professional learning should be viewed as a socially constructed process within the educational institution community, where educators learn through various interactions with colleagues and external training activities (Desimone, 2009; Opfer & Pedder, 2011). Therefore, the understanding of teacher professional learning in this study encompasses four dimensions namely collaboration, reflection, experimentation, and engagement with the knowledge base (Liu et al., 2016).

Early research aimed to define the conceptual boundaries of educator learning and establish a theoretical link between their learning and institutional improvement (Borko, 2004; DuFour, 2004). Subsequent studies have sought to validate this link, with findings indicating that educator professional development leads to improvements in instructional practices (Leithwood et al., 2010; Parise & Spillane, 2010).

Thus, the first research question (RQ1) is formulated as follows:

RQ1: Is there a significant association between LCL and the professional learning of Malaysian lecturers?

The Relationship Between Lcl And Assessment Conception

The concept of LCL drawing from various leadership theories like transformational, distributed, and instructional leadership, emerged due to the recognition that leadership solely focused on educational management was insufficient. Akgun (2021) emphasizes the pivotal role of educational leaders in crafting a vision and setting clear goals to steer organizational activities effectively. Er (2021) study in Turkey involving 426 educators highlighted that leader practicing LCL significantly bolstered educators' confidence in their practices, thereby enhancing institution performance through improved educator commitment.

Several studies, including those by Alanoglu (2023) and Kalman (2023), have consistently demonstrated the substantial influence of educational leaders on educators' self-assurance in their ability to drive actions conducive to student learning. Hence, the next research question (RQ2) was formulated as follows: RQ2: Is there a significant association between LCL and the conception held by Malaysian lecturers?

The Relationship Between Lcl And Assessment Practices

Compassionate leader is highly essential for educators in carrying out their daily tasks. A qualitative study conducted by Barton et al. (2020) on the key issues in addressing assessment implementation problems among educators at Metropolitan University, Australia, indicated that they expect more compassionate administrative leadership and support to enhance assessment practices. They also suggested that their leaders should meet casually with educators and discuss assessment changes if any. Another study demonstrating the importance of leadership in assessment is a quantitative study by Talebizadeh et al. (2021) involving 886 educators from 121 schools in Mashhad, Iran, using structural equation modelling (SEM) to test the relationship between educational leadership and educators' professional learning. The findings showed a positive and significant relationship ($\beta = 0.27$, $p < 0.05$) between the two variables. This implies that leaders who support educators' professional learning definitely increase educators' engagement in assessment-related activities as part of their professional development.

Furthermore, a qualitative study conducted by Yeh (2021) on nine educators in Perak showed that they unanimously agreed that leaders play a crucial role in improving their performance in assessment practices. The researcher claimed that educators who only receive short briefings on assessment methods usually lack understanding of appropriate and effective procedures and strategies in conducting assessments, particularly in terms of preparing relevant assessment instruments and methods for a particular subject. Therefore, the researcher suggested that principals take the initiative and play a more active role in guiding and monitoring the assessment implementation process through Professional Learning Communities (PLCs) so that educators are prepared to equip themselves with skills and knowledge

related to efficient assessment implementation. The researcher also claimed that the lack of support from administrators in terms of professional development and monitoring of assessment implementation is one of the major challenges that need to be addressed in the education sector in Malaysia. Thus, the third research question:

RQ3: Is there a significant relationship between LCL and the assessment practices of Malaysian lecturers?

The Relationship Between Assessment Conception And Assessment Practices

Conception, particularly in relation to assessment practices, has been a significant area of research, with Brown (2004) investigating teachers' perspectives on assessment through four distinct inventories: improvement, student accountability, university accountability, and irrelevant. Previous studies, such as Brown & Michaelides (2011), have underscored the influence of educators' conceptions on their assessment practices. Scholars have highlighted the importance of probing educators' assessment conceptions to improve assessment methods (Barnes et al., 2015; Brown 2004).

Middleton (2017) explored how educators' assessment conceptions correlated with their actual practices, finding alignment between teachers' beliefs and their actions, particularly in improvement and student accountability. Conversely, Azis (2015) found discrepancies between educators' conceptions and their practices. Despite advocating strongly for formative assessment, teachers tended to prioritize summative assessment methods. This leads to the fourth research question:

RQ4: Is there a significant relationship between lecturers' conception of assessment and their actual assessment practices?

The Relationship Between Professional Learning And Assessment Practices

The Ministry of Education (MOE) is deeply concerned about the issue of professional development of educators throughout Malaysia. Under the Malaysia Education Development Plan (PPPM) 2013-2025, within the Teacher Professionalism Development Master Plan (PIPPK), MOE emphasizes continuous professional learning. Similarly, many studies abroad involve professional learning matters. James and McCormick (2009) conducted a research project called "Learning How to Learn" (LHTL) involving teachers from 40 schools, including primary and secondary schools, on teaching and assessment practices. The methods used included surveys, interviews, and observation records, where researchers examined how participating teachers in these schools behaved in their efforts to promote LHTL through their work and assessment. They identified three different teaching and assessment practices among participants that relied heavily on their beliefs and were related to educational policies. Thus, the researchers concluded that professional development is related to

educators' work practices, especially concerning collaboration with colleagues.

Desimone (2009) asserts that professional learning also affects educators' ability to make decisions and implement changes in their teaching and behaviors so that they can educate students according to the national educational vision. Opfer (2016) studied the types of instructional-focused professional development activities, teacher collaboration, and leadership in schools and linked them to the teaching effects of teachers. The researchers reported that professional development activities attended by educators such as courses, workshops, and conferences had a positive impact on their instructional guidance.

Boyle, While, and Boyle (2004) argue that "continuous depth of knowledge and skills is an integral part of the ongoing professional development of any professional working in any job" (p. 46). Participation in professional development is believed to have several effects on educators' abilities to develop critical knowledge, skills, and emotional intelligence necessary for effective professional thinking, planning, and practice with students and colleagues at every stage of teaching experience (Borko, 2004). Educators also have a more positive perception when professional development is conducted continuously because continuous professional development has the potential to deepen their practices (Goodyear, 2017).

A qualitative study conducted by Schnellert et al. (2008) on the professional development experiences of six educators in Canada using two training activities to measure student progress in reading skills. The learning outcomes from these training activities were measured using interview data analysis, meeting field notes, classroom activity observations, which led the researchers to conclude that the study of collaborative sub-constructs in internal training activities significantly influenced educators' teaching practices even though their levels of teaching experience varied. Therefore, the researchers concluded that collaboration and reflection are important in transforming educators' daily work activities, and teaching experience did not yield significant results in their study.

Designing and implementing effective assessment practices is complex and takes time to develop and improve. Barton et al. (2020) found that educators are interested in learning comprehensive assessment practices but stated that they receive limited professional development, especially in learning about constructive teaching processes. The lack of these aspects leads to less effective assessment activities. Educators who undergo professional learning training are more motivated to change and use the expertise learned in assessment. This evidence is supported by qualitative and quantitative studies on teacher professional learning conducted by Andersson and Palm (2018) over a year, which showed that teachers were motivated to conduct assessments. Therefore, the next research question (RQ5) was formulated as follows:

RQ5: Is there a significant association between professional learning and the assessment practices held by Malaysian lecturers?

The Relationship Between Professional Learning And Assessment Conception

The findings of several studies indicate that the educators exposed to knowledge about assessment through specific training are more likely to have positive perceptions of assessment (Levy and Nasser, 2015). The study by Cuarto and Cuarto (2021) on 88 lecturers from Mindoro State University using Spearman rho analysis, Kruskal-Wallis, and Jonckheere Terpstra test showed that professional learning has an impact on the assessment practices of the respondents. Additionally, teaching experience and lecturers' specialization levels also play a role in their ability to conduct assessments. However, there are also studies that show otherwise, where there is no correlation between assessment conception and professional learning program (Brown, 2008a). Therefore, this leads to the sixth research question: RQ6: Is there a significant relationship between lecturers' professional learning and their conception on assessment practices?

IV. METHOD

The current research employs a cross-sectional causal research design to explore how alterations in independent variables are expected to influence the dependent variable. Information was gathered from a sample of 400 lecturers working in Malaysian higher education institutions, utilizing a multistage sampling approach to ensure more representative sample selection.

Instrument And Questionnaires

Data for this study were collected using a standardized closed-ended questionnaire. Table I provides an overview of the number of items utilized for each subconstruct, the sources of adapted questionnaires, and the scale intervals. The final part of the questionnaire focuses on gathering demographic information from the respondents.

TABLE I. RESEARCH INSTRUMENTS UTILIZED

Construct	Subconstruct	No of items	Adapted from	Scale
Conception	Student Account	7	Brown (2006)	1-10
	Uni Account	7		
	Irrelevance	4		
	Improvement	7		
Assessment Practices	Design		Hassan et al., (2022)	1-10
	Administration			
	Application			
	Interpretation			
Learning-centered leadership	Vision	3	Liu et al., (2016)	1-10
	Learning support	6		
	Role Model	7		
Professional Learning	Knowledge	6	Liu et al., (2016)	1-10
	Reflection	6		
	Experimentation	5		
	Collaboration	7		

Demographic Characteristics

The sample consisted of 400 participants, with 37% (N=150) identified as male lecturers and 63% (N=250) as female lecturers. The majority of respondents had teaching experience ranging from 11 to 15 years, representing 34% (N=130) of participants, followed by 16 to 20 years at 23.6% (N=90), then 6 to 10 years at 22.4% (N=86), less than 5 years at 12% (N=46), and more than 21 years at 8% (N=31). Regarding educational attainment, 59% (N=224) of respondents held a Master's degree, while 36% (N=137) held a PhD. The remaining 5% (N=18) held a bachelor's degree.

V. FINDINGS

Descriptive Statistics

The descriptive analysis following the procedure outlined by Best and Khan (1977) indicates that lecturers overwhelmingly prioritize conceptions for improving their assessment practices, with consideration for university accountability, student accountability, and irrelevance following in descending order. While they do not disregard the irrelevance of assessment entirely, they strongly believe in its vital role in facilitating student learning progress (refer to Table II). In terms of assessment practices, lecturers demonstrate proficiency across all four factors, particularly in assessment design (see Table III). Additionally, Table IV illustrates that respondents perceive their leaders as individuals who clearly articulate their vision on assessment and frequently offer support in resolving assessment-related issues. However, they are perceived as modest in possessing qualities that would make them idols to be followed.

TABLE II. THE AVERAGE MEAN OF ASSESSMENT CONCEPTION SUBCONSTRUCTS

Subconstruct	Average Mean	Std. Dev	Indicator
Improvement	8.64	1.06	Very high
Irrelevance	6.77	1.99	High
Student Account	7.27	1.57	High
University Account	7.45	1.36	High

TABLE III. THE AVERAGE MEAN OF ASSESSMENT PRACTICES SUBCONSTRUCTS

Subconstruct	Average Mean	Std. Dev	Indicator
Design	24	0.96	Highly skilled
Administration	75	1.02	Skilled
Application	86	1.01	Skilled
Interpretation	82	1.09	Skilled

TABLE IV. THE AVERAGE MEAN OF LCL SUBCONSTRUCTS

Subconstruct	Average Mean	Std. Dev	Indicator
Vision	7.45	1.55	High
Learning support	7.12	1.51	High
Role Model	6.55	1.74	Moderate

Overall, the average means of professional learning (Table V) indicate that respondents are highly engaged and effective in acquiring knowledge, reflecting on their practice, experimenting with new approaches, as well as collaborating with their peers.

TABLE V. THE AVERAGE MEAN OF PROFESSIONAL LEARNING SUBCONSTRUCTS

Subconstruct	Average Mean	Std. Dev	Indicator
Knowledge	79	0.81	Very High
Reflection	80	1.34	High
Experimentatio n	25	1.16	Very high
Collaboration	50	1.01	Very high

Confirmatory Factor Analysis Result

For inferential analysis, this study utilizes structural equation modelling (SEM), with Confirmatory Factor Analysis (CFA) conducted prior to hypothesis model testing. Figure 2 depicts the measurement model utilized in the study, which met the criteria for construct validity as per the minimal fitness indices outlined by Hair et al. (2014). Further details on these indices are provided in Table VI. Table VII presents factor loading values, Average Variance Extracted (AVE), and Composite Reliability (CR) for the measurement model, indicating that the requirement of unidimensional is satisfied.

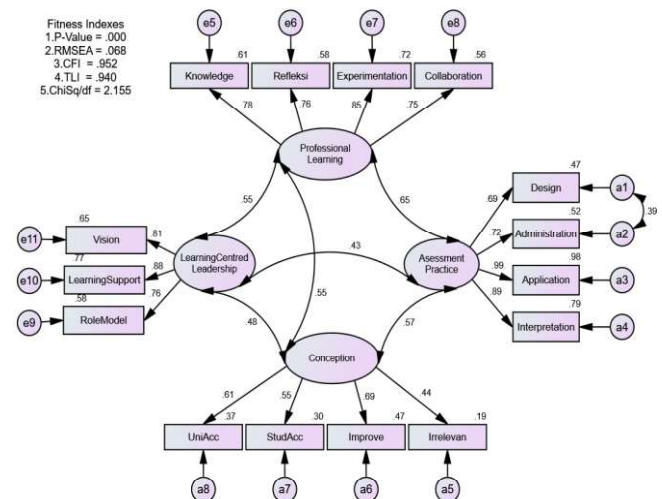


Figure 2. The Pooled-CFA Results to validate four constructs simultaneously

TABLE VI. THE ASSESSMENT OF FIT FOR THE MEASUREMENT MODEL

Category	Name of Index	Present model	Comment
Parsimonious Fit	Chisq/df	2.29	Min requirement < 3.0
Incremental fit	CFI	0.96	Min requirement > .85
	TLI	0.95	Min requirement > .85
Absolute fit	RMSEA	0.07	Min requirement < 0.1

TABLE VII: VALIDITY AND RELIABILITY TEST OF THE MEASUREMENT MODEL

Construct	Item	Factor Loading	CR (> 0.6)	AVE (> 0.5)
LCL	Vision	0.81	0.85	0.66
	Learning support	0.88		
	Role Model	0.76		
Assessment Practice	Design	0.68	0.89	0.68
	Administration	0.72		
	Application	1.00		
	Interpretation	0.88		
Conception	Improvement	0.68	0.66	0.53
	Irrelevance	0.45		
	Student Account	0.55		
	Uni Account	0.61		
ProfLearning	Knowledge	0.78	0.62	0.61
	Reflection	0.76		
	Experimentation	0.85		
	Collaboration	0.75		

Moreover, the measurement model satisfies criteria for both convergent validity and reliability with CR and AVE values surpassing 0.6 and 0.5 respectively. Furthermore, correlations among the four study constructs were comparable but not identical suggesting varied relationships between constructs. These findings indicate the absence of multicollinearity as demonstrated by the fact that no correlation coefficient exceeded 0.90 affirming discriminant validity as depicted in Table VII.

TABLE VII: SUMMARY OF DISCRIMINANT VALIDITY

Construct	LCL	Conception	Assess Practice	Prof Learning
LCL	0.81			
Conception	0.48	0.60		
AssessPractice	0.43	0.57	0.83	
ProfLearning	0.55	0.55	0.65	0.79

Model Testing

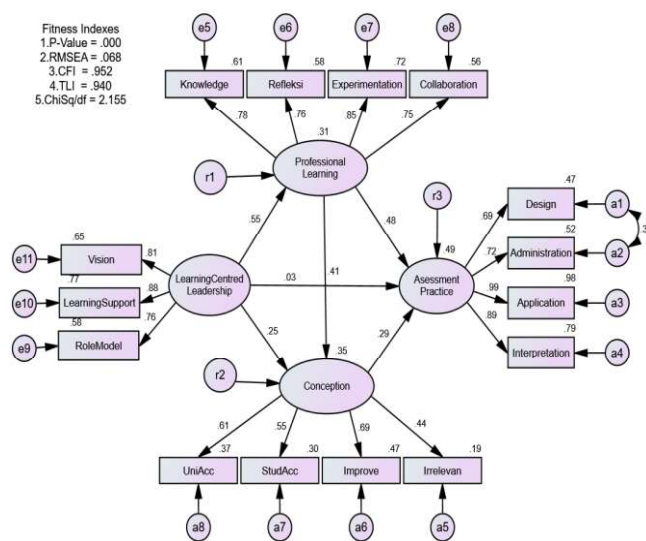


Figure 3. The Standardized Regression Path Coefficient among constructs in the model

TABLE IX. THE REGRESSION COEFFICIENT AND ITS SIGNIFICANCE

Construct	Path	Construct	Std.	p-value	Result
Conception	<---	LCL	0.25	0.012	Significant
AssessPractice	<---	Conception	0.29	0.002	Significant
AssessPractice	<---	LCL	0.03	0.696	Insignificant
ProfLearning	<---	LCL	0.55	0.001	Significant
Conception	<---	ProfLearning	0.41	0.001	Significant
AssessPractice	<---	ProfLearning	0.48	0.001	Significant

VI. DISCUSSION

This study contributes significantly to our understanding of how personal and contextual factors jointly shape educators' assessment practices, providing insights into a comprehensive theoretical framework. Despite the theoretical rationale and empirical support advocating for assessment as a means to augment student learning (Andrade & Heritage, 2018), the translation of educators' positive conceptions and assessment knowledge into classroom practices poses a global challenge. Previous research spanning diverse nations (Brookhart, 2011; DeLuca & Bellara, 2013; Remesal, 2007; Wylie & Lyon, 2015) has revealed widespread educator reluctance to engage in assessment, driven by multifaceted reasons (Brookhart, 2011; Yan et al., 2021). By pinpointing potential predictors of assessment practices among Malaysian lecturers, this study sheds light on strategies to foster and elevate their classroom practices.

The research outcomes reveal a complex interplay between LCL and the assessment practices of Malaysian lecturers. Although the initial analysis did not show a statistically significant relationship between LCL and specific assessment methodologies, a compelling discovery emerged which LCL exhibited a discernible relationship with the professional development endeavours and assessment conceptions of these educators. This nuanced finding underscores the multifaceted nature of educational leadership and its impact on shaping the broader pedagogical landscape.

The implication is profound: while the direct influence of LCL on the day-to-day assessment practices of lecturers might not be immediately apparent, its significance is evident in the broader context of professional growth and conceptual evolution surrounding assessment methodologies (Mei Kin et al., 2018). In essence, while LCL may not dictate the precise methods of assessment employed by lecturers, but it serves as a foundational framework upon which their professional journey and understanding of assessment are constructed.

Hence, the imperative arises to prioritize initiatives aimed at enriching the professional learning experiences and refining the assessment conceptions of educators within academic institutions (Noben et al., 2021). Recognizing LCL as a potent force in this transformative process is crucial (Lundqvist et al., 2023). By doing so, educational stakeholders can harness the inherent potential of LCL to not only cultivate a more profound understanding of assessment methodologies but

also to instigate a paradigm shift towards more effective and student-centered assessment practices.

Moreover, the well-established reputation of LCL for yielding substantive impacts on the professional development trajectories of educators further underscores its pivotal role in shaping the educational landscape (Akgun, 2021; Liu et al., 2016). Through its guiding principles and collaborative ethos, LCL facilitates a deeper engagement with assessment methodologies, thereby empowering lecturers to navigate the complexities of modern education with confidence and efficacy.

In summation, the intricate relationship between LCL, professional learning, and assessment conceptions among Malaysian lecturers illuminates the transformative potential of educational leadership in shaping pedagogical practices. As educational institutions strive to cultivate environments conducive to holistic professional growth, prioritizing the principles of LCL emerges as a strategic imperative, heralding a future where assessment practices are not only refined but also reflective of the evolving needs of learners in the 21st century.

VII. CONCLUSION

This research highlights how LCL influences lecturers' assessment conception and practices within higher education. Strong LCL qualities shape lecturers' understanding of assessment methods, while positive assessment conception drives effective assessment practices.

Therefore, these findings have significant implications for educational leaders and policymakers. Cultivating a culture of LCL and supporting educators in developing constructive assessment conceptions can enhance assessment practices and improve student learning outcomes. To achieve this, leaders can foster LCL qualities and implement professional development programs focused on promoting collaboration among the educators. Policymakers can support initiatives aimed at fostering positive assessment cultures.

The findings suggest the existence significant relationship between LCL, assessment conception, professional learning and assessment practices. However, the study design may not establish causality definitively. Future research with longitudinal or experimental designs could provide stronger evidence of causal relationships.

Future research should explore the specific mechanisms through which LCL influences assessment practices and innovative approaches to cultivating positive assessment cultures. In conclusion, prioritizing constructive assessment cultures can lead to environments conducive to student success and holistic development within higher education.

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