Article

Impact of Innovative Teaching Methods on Learning Engagement among Business and Management Students: A Quantitative Study

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Abstract

This study explores the influence of innovative teaching methods on student learning engagement, emphasizing the mediating role of student motivation. It aims to advance research on innovative teaching practices by examining how creative instructional approaches enhance engagement among business and management students in higher education contexts. A quantitative cross-sectional research design was employed, involving 209 business and management students from various academic programs. Standardized and validated instruments from prior studies were used to assess innovative teaching methods, student motivation, and learning engagement. Data were analyzed through structural equation modeling using Mplus 7 to test the hypothesized direct, indirect, and mediating relationships among the variables. The analytical process ensured strong validity, reliability, and theoretical consistency within the proposed framework. The results revealed that teaching innovation methods have a significant positive effect on student engagement in learning. Furthermore, student motivation was found to positively influence engagement and mediate the relationship between teaching innovation and learning engagement. These findings confirm that teaching innovation methods enhances both the motivational and engagement aspects of the learning experience. This study contributes to the academic discourse by integrating teaching innovation methods and motivation into a single conceptual model, highlighting their combined impact on student engagement. The findings offer practical implications for educators and higher education institutions to adopt innovative, student-centered teaching approaches that foster motivation, engagement, and improved learning outcomes.

Keywords

Teaching Innovation Methods, Student Engagement, Motivation, Business and Management Education, Teaching Innovation Methods.

Introduction

The rapid transformation in education environments has raised a serious concern in the new teaching and learning patterns which could aid in enhancing the student participation and education performance. The current progress in the pedagogical and technological sphere is also causing the supplementation or even substitution of the classical Teaching innovation methods by the more active and student centered Teaching innovation methods (You, 2022). With this trend whereby higher learning institutions are shifting towards competency based and learner driven models, teachers would have to be creative in their approach to learning by encouraging in depth learning, creativity and intrinsic engagement in classroom sessions (Xu et al., 2023). It is well known that motivation can be taken as one of the most important determinants of the learning behavior and it can affect the enthusiasm, cognitive commitment, and persistence of the students in their academic activities. Intrinsic and extrinsic motivation factors combined to motivate the learners into behavioral, emotional, social and cognitive engagement (Wu & Chen, 2021).

Over the past decades, education has experienced a significant change of teacher centered pedagogies to student centered and innovation driven models of learning due to the increasing need to improve the quality of learning outcomes and holistic developmental of the students (Hayuni Retno et al., 2022). Flipped classrooms, digital interactive platforms, problem based learning, and collaborative instructional techniques are some of the teacher innovation methods that have been found to play a crucial role in enhancing instructional effectiveness and student academic performance (Wang & Zhang, 2024).

Empirical study has given significant results indicating that teacher innovation plays an important role in student engagement in several ways. It has been proved that new methods of teaching provoke the interest of students and give them the real learning experience, which, in its turn, facilitates the persistence of learning in the long term and better results (Tan & Du, 2022). Equally, the experimental research carried out in higher education indicates that project-based learning and digital pedagogical approach have a beneficial effect on cognitive engagement through the development of self-directed learning, problem-solving, and reflection (Steinmayr et al., 2019).

In the field of business and management education, the adoption of innovative Teaching innovation methods and innovative curriculum design has become increasingly essential for enhancing students' overall learning engagement (Bureau et al., 2022). Traditional pedagogical approaches often fail to fully stimulate learners' motivation and participation, while innovative strategies such as experiential learning, blended instruction, and project-based learning foster deeper involvement and practical understanding (Fishbach & Woolley, 2022). These methods not only strengthen intrinsic motivation by nurturing curiosity and self-driven learning but also boost extrinsic motivation through rewards, recognition, and real-world relevance (Li et al., 2025). As a result, students experience multidimensional engagement encompassing cognitive engagement, which enhances critical thinking; behavioral engagement, which promotes active participation; affective engagement, which strengthens emotional connection to learning; and social engagement, which encourages collaboration and teamwork (Maass et al., 2019).

Despite the substantial contributions of previous research, several gaps remain unaddressed. (1) Most empirical evidence originates from Western education systems, creating a geographical imbalance that overlooks the cultural and contextual factors influencing motivation, participation norms, and engagement in non-Western settings. (2) Limited studies have examined higher education institutions in developing or Asian contexts, where traditional teaching hierarchies and teacher authority may affect the success of innovative teaching approaches. (3) While prior literature acknowledges the constructs of student engagement and motivation, few studies have applied social cognitive theory to explain how students process, internalize, and apply knowledge through innovative teaching practices in real classroom environments. (4) There is a lack of empirical clarity on how motivation functions as a mediating mechanism between innovative teaching practices and multidimensional student engagement. (5) Existing findings are often inconsistent, and there is an absence of holistic models explaining the combined effect of teaching innovation, motivation, and engagement across diverse educational settings.

This theoretical framework relies on social cognitive theory, student learning engagement has been identified as a complex construct that encompasses behavioral, cognitive, emotional and social aspects. High engagement is hugely associated with high academic success, low dropout intention, desirable learning feeling, and higher peer relationships (Spitzer et al., 2025). Nevertheless, although the constructs have been recognized in

previous studies independently, there is an increasing demand to learn more about their relationships with each other in realistic classroom contexts (Zhou & Ma, 2025). Particularly, there are continued questions that emerge about whether the innovative teaching strategies will be effective in generating motivation and the issue of how motivation is translated into learning engagement on its various dimensions. Also, the discrepancies in previous results with the paucity of holistic models point to the need to conduct further research in various educational settings.

Literature Review

The need to adopt innovative teaching innovation methods has gained momentum in the recent studies in the field of higher education in a bid to improve the learning process and performance amongst students. The methods of teacher innovation are characterized by a great variety of pedagogical practice, such as technology-enhanced learning, flipped classroom design, collaborative learning structure, and experiential learning environment (Smiderle et al., 2020). The empirical evidence shows that teaching innovations create cognitive curiosity and develop positive attitude to learning, which are the pillars to the continuous engagement (Halverson & Graham, 2019). Moreover, the more the instructional practices comply with the learning preferences of students and motivate them to participate, the higher the probability of strengthening the behavioral, cognitive, emotional, and social engagement of the students (Schreiner, Fischer, & Riedl, 2021).

It has been well established that motivation is one of the most important psychological processes that connect instructional practices with the students learning behavior. Based on social cognitive theory, learners become more intrinsically motivated when learning environments fulfill their needs to have autonomous, competent, and socially connected instructional environments (Schöbel, Janson, & Leimeister, 2023). Empirical research shows that motivated students exhibit increased persistence, a higher level of information processing and an overall commitment to learning activities. In addition, motivation has been established to mediate the instructional quality and learning outcomes meaning that instructional innovations have the potential to improve engagement mainly by increasing intrinsic and extrinsic motivation orientations of students (Sahni, 2019). However, there are gaps in terms of particular mediating roles of various forms of motivation and the comparative impact on various dimensions of engagement. Additional studies are required especially in the context of higher education where independent and self-directed learning is paramount so as to test integrative models that simultaneously test teacher innovation, motivation and engagement. In this regard, there is an increasing academic acknowledgment that the interplay between innovation in pedagogy and motivation is dynamic, and thus fundamental determinant of the general quality of student learning engagement in contemporary academic contexts.

Hypotheses Development

The proposed research looks into the connections between Teacher Innovation Methods, Student Motivation and Student Learning Engagement and how teaching innovation methods affect the engagement not only directly, but also indirectly through motivation. Teacher Innovation Methods are the strategic application of new methods of teaching that should be utilized to improve quality and effectiveness of teaching (Imran & Almusharraf, 2025). This construct has two main dimensions, which are innovation in teaching techniques and innovation in courses. Some of the innovations in the methods of teaching include the use of technology-enhanced learning resources, flipped classes, interactive learning, collaborative learning, and experiential learning activities that require the active involvement of the students in the process of knowledge construction and formation of critical thinking skills (Ramírez-Montoya & Lugo-Ocando, 2020). The course design is oriented on the restructuring of curriculum in the real world environment and the development of inclusive forms of learning in which a wide range of learners can be accommodated and where learning processes are not limited to a passive method (Vettriselvan & Ramya, 2025). Student Motivation, which is a conceptual mediating variable, can be defined as the internal and external psychological reasons, which motivate students to participate in the learning activities (Fisher et al., 2025). Intrinsic motivation is driven by internal biological factors and the interest in the subject matter, the desire to master something, and extrinsic motivation is propelled by the external reward, which could be grades, recognition, or career advancement (Puranik, 2020). A motivated student will have higher chances of putting in the long run effort, digesting of the information and resilience to surmount learning difficulties. Student Learning Engagement is the outcome variable, and it is multidimensional, which

includes behavioral, cognitive, emotional, and social engagement (Tang, He, & Hu, 2025). Behavioral engagement denotes active involvement and compliance with academic activities; cognitive engagement is about profound strategies of learning and problem-solving activities; emotional is connected to positive attitudes and investment of emotions in learning; social engagement denotes the interaction with peers and instructors (Morgan et al., 2022). The hypotheses of the study are as follows: Teacher Innovation Methods have the direct effect on the Student Learning Engagement (H1), and also the indirect effect through the Student Motivation (H2, H3), which is the role of the intrinsic and extrinsic motivational processes. This model emphasizes the need to incorporate the innovative teaching practices with motivational approaches to promote holistic interactions and, thus, leading to better learning outcomes and academic achievements in the higher education settings.

Teacher Innovation Methods and Student Learning Engagement

Student learning engagement is a complex construct that can be described as the active engagement of students in academic activities from behavioral, cognitive, emotional, and social aspects. Behavioral engagement is engagement in activities such as participation, effort, and compliance with academic tasks and cognitive engagement is engagement in strategies of learning, problem-solving, and reflective thinking (Wang et al., 2025). Emotional engagement is affective responses to learning, such as interest, enjoyment and belonging and social engagement focuses on interactions, collaboration and peer communication in the learning environment (Puranik, 2020).

Teacher innovation methods include creative and adaptive instructional strategies that go beyond the traditional lecture-based method of instruction. These methods include innovation in teaching techniques, such as flipped classrooms, project-based learning, and technology-mediated instruction as well as innovation in course design, such as structuring content, integrating experiential learning, and encouraging collaborative and interdisciplinary activities (Morgan et al., 2022). These innovations are intended to make students more engaged by encouraging students to be active, think critically, motivated, and interactive in order to create a learning environment that is conducive to holistic engagement. Course design innovations such as collaborative projects and opportunities to learn through experience support social engagement, encouraging employees to interact and cooperate, as well as solve common problems (Morris et al., 2022). There are multidimensional effects of teacher innovation that have been highlighted in various learning environments. These results highlight the fact that carefully planned innovations in the instructional approaches and courses design are essential to promote the quality and holistic student engagement (Morris et al., 2022).

Based on the theoretical and empirical knowledge, it is hypothesized that the methods of teacher innovation have a significant effect on student engagement in learning. Creative instructional methods are proactive to engage behavior, cognitive, reflective, emotional, and social aspects of learning through participation and persistence, complex problem-solving and reflective activities, and collaborative and peer-centered activities.

H1: *Teaching innovation methods (innovation of Teaching innovation methods and innovative course design) has a significant positive impact on student learning engagement (behavioral engagement, cognitive engagement, affective engagement and social engagement).*

Student Motivation and Student Learning Engagement:

Student motivation is well known to be a key factor in the engagement of learning, and can be divided into intrinsic motivation, which refers to the internal motivation for students to master the subject, be curious, and develop themselves, and extrinsic motivation, which refers to external rewards, recognition, or the avoidance of negative consequences (Morgan et al., 2022). At the same time, extrinsic motivators such as grades, certificates or public recognition can increase engagement in behavior by making the student actively participate and complete tasks, although these effects are often stronger when integrated with the intrinsic factors (Moreno-Guerrero et al., 2020). Motivation is an energizing force that affects the behavioral, cognitive, emotional and social dimensions of engagement simultaneously. Empirical evidence establishes the fact that student motivation is an important antecedent of engagement, influencing the depth, persistence, and quality of students' participation in learning (Martin et al., 2019). Intrinsically motivated students are more likely to exhibit learning activities with curiosity, effort, and persistence, and evidence high cognitive and emotional engagement, whereas extrinsically motivated students are more likely to exhibit increased behavioral engagement by responding to external incentives (Consoli et al., 2025).

Although engagement may be directly caused by innovative methods of teaching and course design, it

is also often mediated or strengthened by the degree of student motivation. To take an example, a project-based course with a higher intrinsic motivation will be easier to start working, keep working, and critically assess the outcomes of learning (Guo et al., 2025). Based on these empirical findings, the hypothesis is that student motivation has a significant influence on student learning engagement (H2). Likewise, extrinsic motivators that are integrated into the design of the course like the reward of collaborative work can play a part in engaging the behavior, particularly when they become connected with personal objectives of the students.

H2: *Student motivation (intrinsic motivation and extrinsic motivation) has a significant positive impact on student learning engagement (behavioral engagement, cognitive engagement, affective engagement and social engagement).*

Student Motivation as Mediator

Innovation instruction, including innovative methods of instruction like flipped classes, teaching and learning, and innovative course structure, including formalized experience learning and interdisciplinary synthesis, has been indicated to indirectly influence engagement by having an effect on motivational states (Maass et al., 2019). Research indicates that when courses are constructed innovatively, students experience a sense of more autonomy, relevance and competence which enhances intrinsic motivation (Lin et al., 2021). This body of research suggests that teaching innovation can set the condition that develops motivation which in turn drives behavioral, cognitive, emotional and social engagement.

In respect of the latter, the empirical evidence supports the idea that motivation is a bridge between teaching practices and engagement (Li, 2021). Likewise, learning and collaborative instructional designs positively influenced extrinsic motivation among students by offering structured recognition and goal setting opportunities which resulted in increased engagement (Patwary et al., 2025). Cognitive and emotional involvement are especially responsive to motivational states: motivated students tend to be more curious about learning activities, invest mental energy, cope with difficulties, and establish positive emotional relations to learning processes (Li & Xue, 2023). Social engagement is also enhanced where motivated students are proactive in collaborating, discussing and supporting peers. Collectively, these results show that student motivation is an important mechanism through which teaching innovation is translated into greater engagement (Leenknecht et al., 2021).

Intrinsic motivation motivates students to think by fostering curiosity, problem-solving and deep reflection and extrinsic motivation motivates behavioral engagement by rewarding participation and accomplishment of tasks (Kong, 2021). Emotional and social involvement is also improved when motivated students enjoy themselves more, are more persistent and cooperative. This view is consistent with the Self-Determination Theory, which states that autonomy-supportive and competence-enhancing instructional environments lead to motivation, which in turn leads to learning outcomes (Huang, Huang, & Chang, 2022).

These studies point out that the indirect pathway via motivation is not simply additive but integral in that motivation influences how students view and react to innovative approaches to teaching that determine depth, quality and sustainability of engagement. Based on these findings, H3 posits that student motivation mediates the process of teaching innovation methods and student learning engagement. Although new teaching practices and course designs may have a direct influence on engagement, their impact is mediated or mediated by motivational states of students.

H3: *Student motivation (intrinsic motivation and extrinsic motivation) mediates the relationship between Teaching innovation methods (innovation of Teaching innovation methods and innovative course design) and student learning engagement (behavioral engagement, cognitive engagement, affective engagement and social engagement).*

This theoretical synthesis does not only coincide with the rest of the literature on teaching effectiveness and educational psychology, it also provides a systematic means of analyzing the dynamic relationship between instruction strategies and student learning outcomes within higher educational settings. The study variables are shown in terms of their relationship according to the conceptual framework (Figure 1). Independent variable is teacher innovation techniques whose intervention influences student engagement in learning as dependent variable. The student motivation mediates this relationship whereby the innovative teaching strategies contribute to an increase in engagement in behavioral, cognitive, emotional, and social aspects.
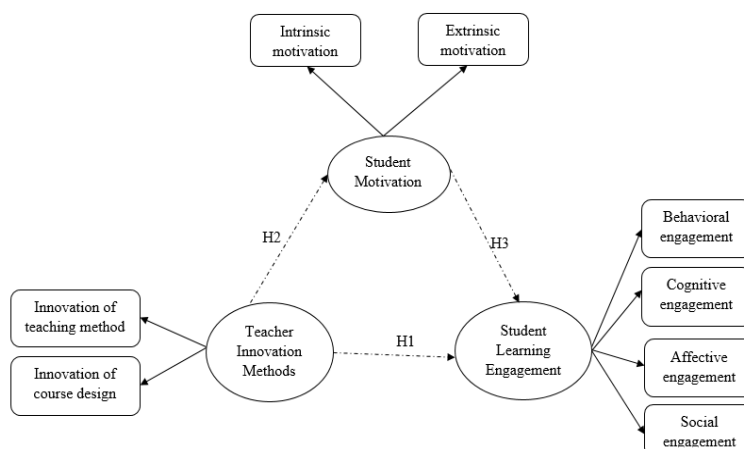
Figure 1: *Conceptual Framework.*

Methodology

Measures

The research framework of current study was composed of three variables namely teacher innovation methods, student motivation, student learning engagement. A well-established standardized questionnaire was utilized to collect data from the respondents. Notably, questions of independent variable innovative Teaching innovation methods (TEACHIM), comprised of two dimensions: innovation of Teaching innovation methods and innovative course design, were adapted from Tan, Chen and Yu (2022). Whereas, 6 questions of innovation of Teaching innovation methods (IT), with a sample item "My teacher is interested in finding new ways to teach the subject matter" and 5 questions of innovation of course design (ICD) with sample item "My teacher actively organizes activities to make learning the material more interesting for students" were adapted. Likewise, student motivation (SMOTIV), comprised of two dimensions: intrinsic motivation and extrinsic motivation, were adapted from Kotera, Conway and Green (2023). Accordingly, both intrinsic motivation (INTM) and extrinsic motivation (EXTM) have 6 questions each and sample item "Because my studies allow me to continue to learn about many things that interest me", "Because I think that a college education will help me better prepare for the career I have chosen" respectively. Moreover, dependent variable student learning engagement (SENGAGE) were adapted from Fernandes et al. (2016), comprised of four dimensions, behavioral engagement (BEHE), cognitive engagement (COGE), affective engagement (AFFECTE) and social engagement (SOCE). Whereas, each dimension has five questions with sample item of BEHE "I remain absent from school only due to a valid reason", COGE "When writing my work, I begin by making a plan for drafting it", AFFECTE "My school is a place where I feel included", SOCE "During classes, I ask questions from the teachers" respectively. Notably, the research applied 7-point Likert scale to provide more flexibility and options to the participant for responding to the research questionnaire.

Data Analysis

Primarily, the purpose of this research was to analyze the direct and indirect association between the use of augmented reality and students' attitude towards participation in sports activities. To determine these associations between the variables of study, data analysis was performed on responses of 209 participants by using Mplus 7. Notably, for hypothesis testing, structural equation modeling approach was applied (Asparouhov & Muthén, 2018; Byrne, 2013).

Assessing Model Fitness

Before moving to the hypothesis testing, it was mandatory to examine the fit indices to confirm that the model proved to be good enough for conducting SEM. For this purpose, model fit indices provided in Mplus 7 were compared with the threshold values (Asparouhov & Muthén, 2018; Bentler, 2004; Kline, 2011). It was identified that the values of all the model fit indices (SRMR, RMSEA, CFI, TLI, Chi-square) were above the required threshold levels (see Table 1).
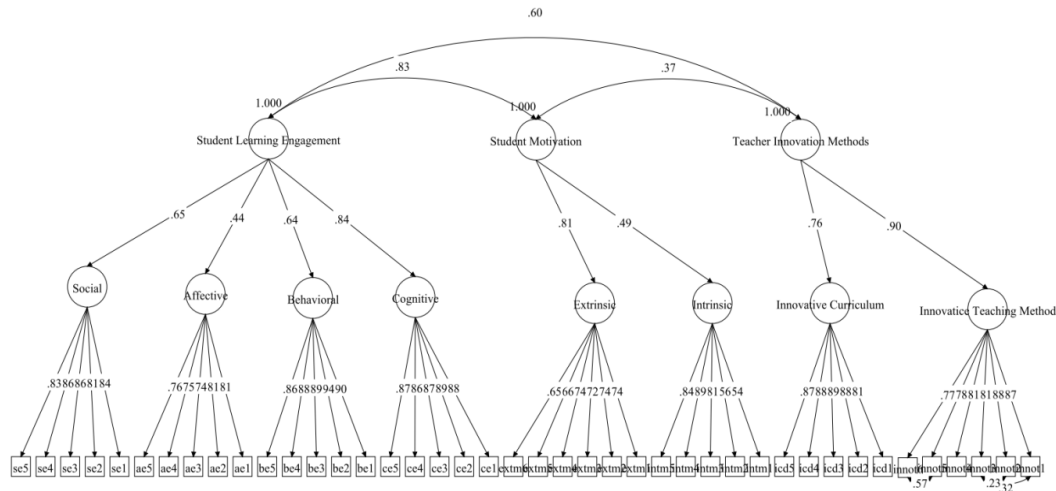
Figure 2: *Measurement Model.*

Table 1: *Model Fit Indices.*

Measurement Model	X^2	DF	X^2/DF	RMSEA	SRMR	CFI	TLI
1	1312.32	805	1.63	0.055	0.063	0.92	0.92

Note: X^2 = Chi square value, DF =Degree of freedom

Determining Validity, Reliability and Correlation

It is recommended that the discriminant validity and convergent validity should be calculated to determine the objectivity of the scales used in the study (Fornell & Larcker, 1981). Notably, one of the items of INTM was dropped because of poor factor loading which consequently significantly improved the overall model fitness. As far as the discriminant validity is concerned, it examines the degree to which the variables are proved to be unrelated which are supposed to be unrelated. Therefore, in order to confirm this, we calculated the average variance extracted (AVE) of the constructs along with the correlation among the constructs (Fornell & Larcker, 1981). Accordingly, Compo et al. (2011) pointed out that that the squared root of the AVEs should also be calculated and be greater than the corresponding correlations between the variables. Thus, the analysis revealed that the squared root of AVE remained higher than their corresponding correlation values (see Table 2).

Table 2: *Correlation, Validity and Reliability.*

Construct	IT	ICD	INTM	EXTM	COGE	BEHE	AFFE	SOCE
IT	**.820**							
ICD	.687	**.869**						
INTM	.161	.137	**.742**					
EXTM	.265	.226	.395	**.708**				
COGE	.453	.385	.342	.562	**.875**			
BEHE	.345	.294	.260	.428	.533	**.893**		
AFFE	.238	.203	.180	.295	.368	.280	**.775**	
SOCE	.351	.299	.265	.435	.542	.413	.285	**.840**
CR	.923	.937	.855	.857	.940	.951	.883	.922
AVE	.670	.751	.551	.503	0.766	.791	.601	.705

Note: N=209, IT=Innovative Teaching Method, ICD=Innovative Curriculum Design, INTM=Intrinsic Motivation, EXTM=Extrinsic Motivation, COGE=Cognitive Engagement, BEHE=Behavioral Engagement, AFFE=Affective Engagement, SOCE=Social Engagement, CR=Composite Reliability, AVE=Average Variance Extracted

Therefore, it was confirmed that the scale had no issue of discriminant validity. Contrary to this, convergent validity examines that the designer of the questions of scale should have the same understanding on what the constructs intends to measure (Campbell & Fiske, 1959). To confirm this, factor

loadings of the scale items were analyzed and were found to be higher than 0.5 (Hair, 2009; Memon & Rahman, 2014). A additionally, values of AVE were also assessed for the confirmation of scale's convergent validity. It was observed that the values of AVE remained > 0.5. These findings confirmed that the scale met the criteria of convergent validity (see Table 2). In terms of the reliability of the constructs, we calculated composite reliability (CR) to confirm the internal consistency of the scale. The analysis revealed that the CR-values of all the variables were significantly higher than 0.7 and were lower than the maximum value i.e., 1. These values confirmed the reliability of the scale (see Table 2).

Examining the Descriptive Statistics

In terms of the assessment of normality of data, we computed mean values and standard deviation from the mean of the variables of study. It was observed that the mean value of the constructs ranged from that the mean values of vary from 4.8 to 6.4, whereas the standard deviation from the mean ranged from .73 to 1.11. These descriptive statistics (Table 3) reflected that the data had no issues of non-normality.

Table 3: *Descriptive Statistics.*

Variables	Mean	Std.
TEACHIM	4.882	1.11454
ICD	4.840	1.17944
INTM	4.982	.77837
EXTM	5.673	.73939
COGE	5.934	.95171
BEHE	5.330	1.24727
AFFECTE	5.950	.77745
SOCE	6.407	.83777

Note: N=209, Std=Standard deviation, IT=Innovative Teaching Method, ICD=Innovative Curriculum Design, INTM=Intrinsic Motivation, EXTM=Extrinsic Motivation, COGE=Cognitive Engagement, BEHE=Behavioral Engagement, AFFECTE=Affective Engagement, SOCE=Social Engagement

Test of Common Method Bias

Table 4: *Total Variance Explained.*

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	13.358	31.066	31.066	13.358	31.066	31.066

As the current study adopted the cross-sectional design for data collection, therefore, there may be chances of the method bias (Table 4). To confirm and to root out this problem, we administered a famous test of common method bias (Podsakoff et al., 1990) by using Harman's single-factor method (Dan-Dan & Zhong-Lin, 2020). Notably, the test identified the variance explained by single factor though dimension reduction option in SPSS 21. The examination of the single factor confirmed that the single factor explained a mere 32.06% of the explained variance which was significantly lower than the threshold value (50%). These findings confirmed that although the data was collected through a self-administered questionnaire at a single point of time, the responses of the participants were not found to be influenced by the common method (Saris & Gallhofer, 2014).

Hypothesis Testing of Direct, Indirect and Moderated Effects

The preliminary analysis (presented above) established that the data was ready for hypotheses testing. As per the objectives of the study, various hypothesis related to direct, indirect and moderated associations were developed. Findings illustrated that SENGAGE was significantly predicted by TEACHIM (β=0.344, SE=0.131, p-value=0.009). Therefore H1 was supported. Similarly, SMOTIV was also significantly predicted by TEACHIM (β=.707, SE=0.061, p-value=0.000). Consequently, these results indicated that all the hypotheses related to the direct associations supported the assumptions of researchers (see Table 5).

Table 5: *Testing of Direct Paths.*

| Hypotheses	β.	SE.	Est./S.E.	p-value	Outcomes
H1: SENGAGE ON TEACHIM	0.344	0.131	2.619	0.009	Supported
H2: SMOTIV ON TEACHIM	0.707	0.061	3.895	0.000	Supported

Note: SENGAGE=Student Learning Engagement, TEACHIM=Teacher Innovation Methods, SMOTIV=Student Motivation, β=Beta, SE=Standard Error.

Similarly, the next step was to examine the mediated path (Figure 3). Notably, the decision about these (indirect / mediated) hypotheses was purely made upon significance level, upper (ULCI) and lower levels of confidence intervals (LCI) (Hayes & Scharkow, 2013; Shrout & Bolger, 2002). However, it is recommended that the sample size should be artificially inflated to at 5000 bc-bootstrapsfor getting the desirable and accurate results of mediations (O'Rourke & MacKinnon, 2015). But we decided to test the significance by increasing the sample size by up to 5000-bootstraps. The following Table 6 highlights the summary of mediation analysis. It can be observed that SMOTIVE significantly mediated the TEACHIM-SENGAGE path (β=0.259, SE=0.120, t-value=2.157, p-value=0.031, CI= L-0064- U-.454). Therefore, H3 was supported because all the values β were significant at 0.005 and ULCI and LCI did not include zero in between (Hayes & Scharkow, 2013; Shrout & Bolger, 2002).

Table 6: *Mediation Analysis.*

Hypotheses	β.	SE.	Est./S.E.	p-value	CI	Outcome
H3: SENGAGE SMOTIV TEACHIM	0.259	0.120	2.157	0.031	.0064--.454	Supported

Note: SENGAGE=Student Learning Engagement, TEACHIM=Teacher Innovation Methods, SMOTIV=Student Motivation, β=Beta, SE=Standard Error, CI=Confidence Interval
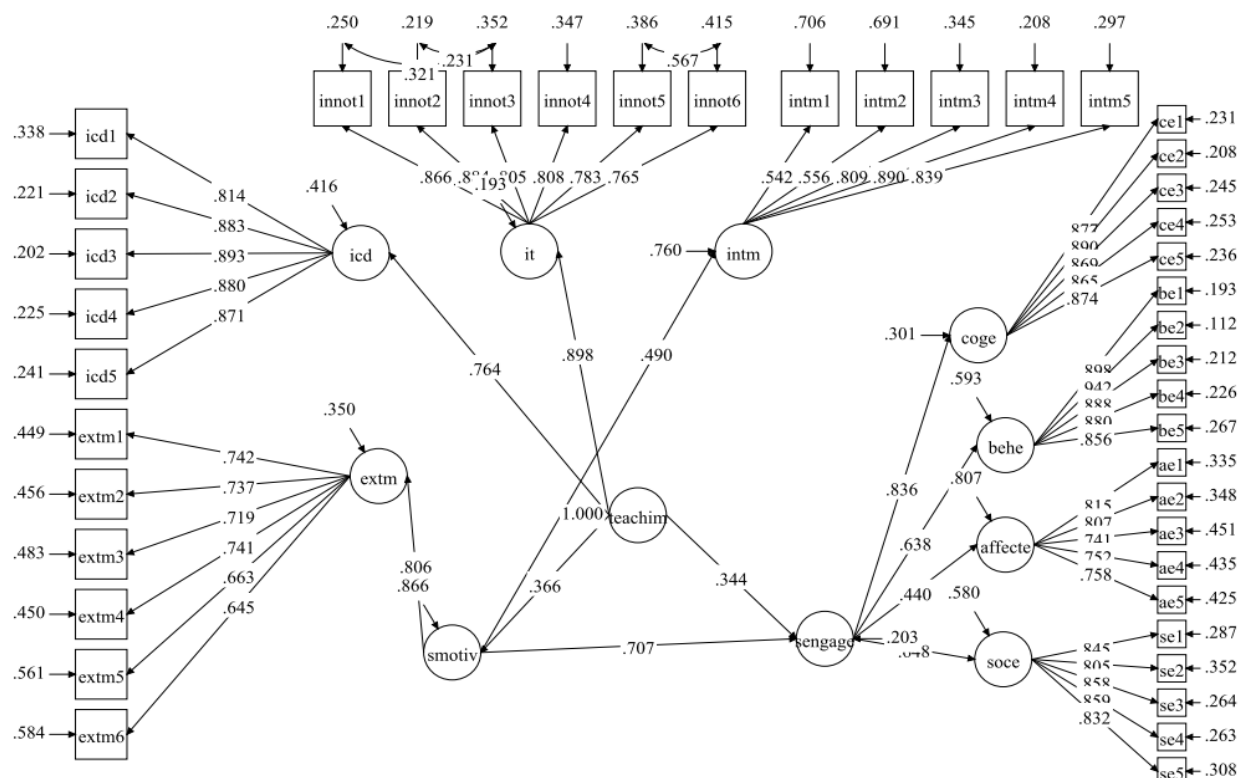
Figure 3: *Structural Model.*

Discussion

The available research is a vivid exposition of the association between the methods of instructing innovativeness, student motivation and student learning interaction in advanced learning institutions. The analysis is also rather in the sense that it employs both direct and indirect links to assist in deriving an insight on the effects of the innovative instruction strategies to the learning outcomes. This discussion chapter starts with an encounter of the findings within the context of the existing theoretical frameworks like the social cognitive theory that identifies the role played by instructional practices and psychological processes in influencing the behavior and involvement of students. The study results, besides the analysis of the role of teacher-led innovation as an engagement promoter, also indicate the prime role of student motivation as a mediating variable that proves that pedagogical efficacy is closely interconnected with the psychological conditions of students. The combined outcome of the studies makes sense towards the idea that the instructional and motivational variables are mutually responsive in evoking cognitive, emotional, and behavioral engagement of students in the process of learning, which supports the aspect of wholesomeness in developing the curriculum and the overall delivery of the lessons.

The outcomes of H1 proved that the innovative Teaching innovation methods make a strong positive contribution to learning engagement (= 0.344, p = 0.009) in students, which supports the hypothesis. This observation shows that in cases where teachers use interactive, technology-based, and student-focused instructional methods, learners will be more engaged in the learning process. These methods increase problem-solving skills, communication, and collaboration of students, which leads to increased behavioral, cognitive, affective and social engagement. Such findings are consistent with other studies that indicate that the instruction of innovation techniques leads to more engagement levels achieved through the connection to the real world and the encouragement of active learning conditions (Tan et al., 2022).

Similarly, H2 was also supported, confirming that innovative Teaching innovation methods significantly influence student motivation (β = 0.707, p = 0.000). This connection stresses that innovative instruction brings forth intrinsic and extrinsic motivation. Nevertheless, as opposed to the earlier studies, the main purpose of which was to investigate the Western educational background, the given research extrapolates the results to the other cultural and institutional background, emphasizing the idea that innovative instruction is an effective motivating factor even in more traditional and instructor-oriented learning conditions (Moreno-Guerrero et al., 2020). Moreover, while earlier studies often examined either intrinsic or extrinsic motivation in isolation, this research demonstrates that both dimensions operate simultaneously, reinforcing each other to sustain students' engagement and academic performance (Puranik, 2020). Through engaging learning designs, students develop a stronger sense of curiosity, achievement, and recognition. Intrinsic motivation encourages independent exploration and critical thinking, while extrinsic motivation reinforces participation through external rewards and performance feedback (Kotera et al., 2023).

The mediation hypothesis (H3) was also confirmed, which means that motivation plays an important role in the relation between innovative teaching and learning engagement (0.259, 0.031). This implies that innovative teaching indirectly promotes engagement as it initially boosts student motivation and subsequently causes better rates of participation and enthusiasm in learning. Motivated students are strongly cognitively alert, behaviorally engaged, emotionally connective, and socially interactive qualities which are very important in doing business and management courses (Fernandes et al., 2016). However, unlike earlier research that primarily analyzed direct relationships between teaching methods and engagement, the present study provides empirical evidence of the indirect pathway, showing that innovative teaching enhances engagement through the elevation of motivation (Morris et al., 2022). Overall, the acceptance of all hypotheses (H1, H2, and H3) underscores that innovative teaching and curriculum design not only have direct effects on engagement but also exert indirect effects through motivation. The high mean values observed for social and affective engagement further suggest that students respond positively to learning environments that are collaborative, dynamic, and emotionally rewarding.

To conclude, the paper has demonstrated the significance of innovative pedagogical practices to encourage students to be motivated and engage in learning in business and management education. The results prove that the suggested model is effective to describe the complexity of the engagement in higher education. The hypotheses were all accepted and it was revealed that teaching innovation methods had a direct relationship with learning engagement, student motivation in the relationship with learning engagement and contextual

variables of learning environment and instruction support, lead to increased learning engagement. These findings demonstrate the theoretical basis of the Social Cognitive Theory and emphasize that innovative teaching strategies as well as psychological mechanisms are the most important determinants of student engagement.

Implications

Theoretical Implications

The research findings have rather many theoretical implications to the educational psychology, the research of the instructional innovation and the engagement of the student. First, the research promotes and extends the application of the social cognitive theory by demonstrating that the innovation initiated by teachers is a critical environmental stimulus having the influence not only on the learning behavior of students directly, but also indirectly through the process of motivation. This leads to the interdependency of external pedagogical processes and the internal psychological processes meaning that teaching processes cannot be examined independently of cognitive and motivational conditions of students. Secondly, the study because it shows that the motivation of students is a mediation variable between the teaching innovation practices and the learning engagement, and consequently, identifies the central role of intrinsic and extrinsic motivation drivers in shaping the ultimate outcomes of student engagement. This adds to the theoretical knowledge as it creates a clear relationship between instructional innovation, motivational processes and engagement outcomes, which, in turn, may be used to support the psychological mechanisms that are in the background of effective teaching practices, empirically. Third, the research study contributes to the overall literature in the field of higher education pedagogy by providing a systematic framework on how to integrate teaching innovation, student motivation and learning engagement into a coherent model. Through this it enables the mental aspect of engagement to be a multidimensional construct of cognitive, emotive, and behavioral dimensions and how the instructional and motivational factors interplay to mould these aspects. Lastly, the study provides a theoretical prospective as it demonstrates that the success of pedagogical intervention depends on psychological openness of students, which implies that the models of learning engagement need to focus on contextual and cognitive-motivational factors in a more effective explanation of differences in student performance. On the whole, these theoretical contributions enhance the insight into the ways in which innovative teaching practices can be turned into meaningful learning experiences and connect the gaps between instructional design, motivation theory, and studies of engagement.

Practical Implications

The present research can have a number of practical implications on educators, administrators, and policymakers in the higher education sector who may want to improve the engagement of students in learning with the use of innovative teaching methods. Firstly, the great positive effect of teaching innovation techniques on students' involvement states the necessity of the focus of institutions and universities on the development and implementation of the interactive, technology-enriched, and flexible to various learning conditions teaching methods. Teachers can use such findings to implement active learning and more profound thinking among students in learning activities by applying to their teaching strategies problem-based learning, group exercises, technologies, and real-life projects. Second, the mediating position of student motivation brings to light the significance of strategies that not only help in delivering the content innovatively, but also proactively promote the intrinsic and extrinsic motivation of students. Possible practice solutions may involve individualized learning trajectories, awarding of accomplishments, autonomy-supportive instruction, and effective communication of the relevance of course material, which may reinforce psychological investment of students in the learning activities. Fourth, the findings indicate that higher education establishments need to offer professional development opportunities and tools, which equip instructors with the proficiency and tools required to initiate innovative instructions effectively and knowledge of the motivational requirements of their students.

Limitations and Future Research Directions

Although the study contributes to the research on utilised a cross-sectional design, limiting the possibility to conclude on the causal relationships between the methods of teaching innovation, the motivation of students,

and their engagement in learning. Second, the research was done in business and management students of different programs, which can be a problem when generalizing the results to other fields, educational levels, or cultures. A student may show a strong interest or lack interest in learning in other fields especially humanities, or vocational studies because of the difference in the structure of the curriculum, method of teaching and learning objectives. Third, the use of self-reported measures can result in the common method bias or social desirability bias because the participants might have over-reported or under-reported their engagement and motivation levels. Despite the reliability and convergent validity ensured by the use of validated scales, future research might consider introducing an objective measure, i.e. classroom observations, digital learning analytics, or academic performance data, in order to offer a more detailed view of engagement. Lastly, the research concentrated more on mediating effect of student motivation not taking into account any possible moderating factors, including learning environment, teacher's features, or the personal dissimilarities in personality and previous experience, which might also determine the positive or negative values of the positive relationships.

On these shortcomings, a number of directions to future research can be identified. The longitudinal and experimental designs can be developed to investigate causal relationships among teaching innovation techniques, motivation, and engagement to enable a stronger comprehension of how a teaching approach would impact the student achievement in the long term. The future research might also broaden the area of inquiry to several disciplines, institutions, and cultural backgrounds to evaluate the applicability of the model and discover the field-specific or context-specific differences in the pattern of engagement. The model can be improved by introducing other psychological and social, or contextual variables, like self-efficacy, peer support, or online learning infrastructure, to explain the functions of the model better and offer a more comprehensive view of the process of engagement. In addition, subsequent research might consider the moderating or conditional role of personal differences, including learning styles, prior academic success, or personality characteristics, in order to gain a more accurate answer to the question of who and in what circumstances teaching innovation methods are most effective. Lastly, it may be better to adopt mixed-methods research and develop data on how students perceive and experience innovative teaching practices and motivational processes through a combination of quantitative data with qualitative data provided by interviews or focus groups, and, therefore, build more effective pedagogical interventions in higher learning.

Conclusion

This study provides empirical evidence that teaching innovation methods significantly enhance student learning engagement, both directly and indirectly through student motivation. Innovative instructional approaches foster intrinsic and extrinsic motivation, leading to greater cognitive, behavioral, emotional, and social engagement. The findings validate the positive relationships among innovative teaching practices, motivation, and learning engagement in higher education, particularly within business and management programs. The results support cognitive and constructivist perspectives, highlighting that learner-centered, interactive, and creative teaching strategies strengthen students' autonomy, competence, and sustained engagement. Practically, the study emphasizes the need for educators and institutions to implement innovative pedagogies that motivate students and enrich learning experiences. Overall, the research contributes to theory and practice by offering evidence-based insights for instructional design, pedagogical reforms, and future studies aimed at maximizing student engagement and learning effectiveness.

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