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Exploring Student Engagement in University through Lecturer Competence: A Tripod 7Cs Framework

Devie Yundianto[1]*, Muhammad Khatami[2], Isna Mutmainah[3], Anggun Pastika Sandi[4], Siti Nabilah[5], Febi Mutiara Sania[6]
Universitas Nahdlatul Ulama Indonesia
* Email correspondence : devieyundianto@unusia.ac.id

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Abstract

This study aims to empirically examine and model the influence of lecturer competence on student engagement in higher education, operationalized through the Tripod 7Cs framework, at Universitas Nahdlatul Ulama Indonesia. The 7Cs framework consists of seven instructional competencies—Care, Confer, Captivate, Clarify, Consolidate, Challenge, and Classroom Management—with student engagement conceptualized across three dimensions: Vigor, Absorption, and Dedication. Addressing the limited application of the Tripod 7Cs framework in higher education and non-Western contexts, this study investigates both the simultaneous and differential effects of the seven competencies on distinct engagement components. Participants consisted of 129 undergraduate students (N = 129), including 43 men (33.33%) and 86 women (66.67%), selected using convenience sampling. Data were collected via an online questionnaire. Lecturer competence was measured using the Tripod 7Cs Instrument, while student engagement was assessed using the Utrecht Work Engagement Scale for Students (UWES-S). Rasch measurement modeling was employed to ensure construct validity and reliability prior to hypothesis testing. Multiple regression analyses were conducted to examine the predictive effects of the 7Cs dimensions on each engagement component. In addition, a thematic analysis of open-ended responses was performed to triangulate the quantitative findings and provide contextual insight into students' perceptions of effective teaching practices.The results revealed distinct and non-uniform relationships between lecturer competencies and engagement dimensions. The Captivate dimension emerged as a significant predictor of Vigor ($\beta = 0.260$, $p = .044$) and the strongest predictor of Absorption ($\beta = 0.429$, $p < .001$), indicating the central role of engaging instructional delivery in fostering energy and deep learning immersion. The Care dimension significantly predicted Vigor ($\beta = 0.231$, $p = .040$) and Dedication ($\beta = 0.253$, $p = .020$), highlighting the importance of relational and emotional support in sustaining students' commitment to learning. Conversely, Clarify did not demonstrate a direct statistical effect on engagement, although qualitative findings underscored its role as a foundational instructional prerequisite. This study contributes novel empirical

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evidence by extending the Tripod 7Cs framework to higher education, demonstrating its applicability in an Indonesian, non-Western context, and revealing the differential predictive power of specific lecturer competencies across engagement dimensions. The findings offer actionable implications for faculty development, emphasizing that effective teaching in higher education requires not only instructional clarity, but also engaging delivery and caring lecturer–student relationships to foster meaningful and sustained student engagement.

INTRODUCTION

The quality of education in Indonesia is currently under intense scrutiny, as PISA 2022 scores show that Indonesian students' literacy and numeracy skills continue to remain below the global average, reflecting persistent systemic challenges in achieving international competency standards (Ramadani et al., 2025). Several factors contribute to Indonesia's struggle to produce competent graduates in an increasingly globalized era. These factors include lecturer welfare, outdated instructional practices, limited technology implementation, and curricula that are insufficiently aligned with students' needs and labor-market demands (Catacutan et al., 2023; Julianto & Halim, 2025; Siregar et al., 2024; Winoto, 2022). To prepare students to become the nation's future leaders and to compete effectively in the global industrial landscape, curricula must be adapted to create learning environments that are intellectually stimulating, supportive, and conducive to academic success (Niemi, 2021). Student engagement in the classroom is widely recognized as a key predictor of educational quality, as it creates conditions for academic achievement, student retention, and deep learning, which collectively contribute to long-term personal and professional development (Anwar et al., 2024; Chiu, 2023; Shernof et al., 2017; Virtanen et al., 2015).

In terms of academic success, students who are actively engaged in learning tend to demonstrate higher motivation, persistence, and timely completion of their studies. For students from lower to middle socioeconomic backgrounds, engagement plays a critical role in strengthening resilience within challenging learning environments (Bayoumy & Alsayed, 2021; Ferrer et al., 2022). Furthermore, student engagement contributes to positive developmental outcomes, including the prevention of maladaptive behaviors such as substance use and mental health problems, including depression, which are associated with increased dropout rates (Archambault et al., 2009; Nurmala et al., 2021; Ponsford et al., 2022). In addition, innovation and skill development are essential in preparing students for the labor market (García-Pérez et al., 2021; Rohm et al., 2021). Students who are meaningfully engaged in learning are also more likely to maintain psychological well-being, enabling them to manage academic stress and reduce the risk of burnout (Długosz & Liszka, 2021; Ekornes, 2017).

Student engagement is a multifaceted construct that plays a central role in shaping both academic success and student well-being (Puiu et al., 2024). Its core dimensions—vigor, absorption, and dedication—collectively represent students' levels of energy,

concentration, and commitment in academic activities (Bowden et al., 2021; Wong & Liem, 2022). Vigor refers to high levels of energy and mental resilience that enable students to invest sustained effort in learning and persist when encountering academic challenges (Ayala & Manzano, 2018; Kotera et al., 2022). Empirical studies consistently indicate that vigor is a critical component underpinning students' vitality and enthusiasm in the learning process (Chagas & Muñoz-García, 2023).

Absorption refers to a state of deep focus characterized by high levels of concentration and immersion in academic activities, during which students often perceive time as passing quickly while completing tasks. This concept is closely associated with the experience of "flow," which supports deep learning and meaningful understanding, enabling students to retain and transfer knowledge over time (Burke et al., 2024; Shao et al., 2024; Tong et al., 2022). Finally, dedication reflects students' sense of significance, enthusiasm, and pride in their academic work (Tang et al., 2023). Dedication manifests as a strong commitment to academic goals and sustained motivation, encouraging students to pursue excellence in their studies (Cheng, 2023)(Liu et al., 2024).

Student engagement is shaped by multiple interrelated factors. These include individual factors, such as motivation, self-efficacy, and prior knowledge relevant to learning (Graham, 2022; Schunk & DiBenedetto, 2021); peer factors, including interactions with classmates that facilitate collaborative learning and social support (Martinot et al., 2022; Qureshi et al., 2023); and environmental factors, such as classroom conditions and institutional support systems. Among these influences, teacher-related factors—particularly instructional strategies, emotional support, feedback quality, enthusiasm, and mentoring roles—are commonly conceptualized as core dimensions of lecturer competence (Raghunathan et al., 2022).

Lecturer competence is a multidimensional construct that has been widely used to explain variations in student engagement. It encompasses cognitive, affective-motivational, and situational dimensions that enable lecturers to meet classroom demands effectively (Zhang & Tian, 2025). These competencies are essential for planning instruction, motivating students, managing classrooms, and assessing learning outcomes (Abidin & Muhammad, 2024). One of the most influential frameworks for measuring teacher competence is the Tripod 7Cs model developed by the Bill & Melinda Gates Foundation. This study adopts the Tripod 7Cs framework because it offers a comprehensive and empirically validated instrument that captures students' perceptions of lecturer competence across seven instructional dimensions that are directly linked to learning engagement in higher education contexts (Phillips et al., 2021).

Within the Tripod 7Cs framework, several dimensions serve as foundational pillars. Personal Support fosters positive lecturer–student relationships and a classroom climate in which students feel valued and respected. This dimension consists of Care—demonstrated through concern for students' emotional and academic well-being, relationship building, and responsiveness to learning needs—and Confer, which involves

respecting students' perspectives, encouraging dialogue, and incorporating student ideas into classroom interactions (Vomund & Miller, 2025).

The second pillar, Curricular Support, emphasizes instructional practices that make learning content engaging, accessible, and coherent. This dimension includes Captivate, which focuses on sustaining students' interest through engaging instructional design and active participation; Clarify, which involves explaining concepts clearly, monitoring student understanding, and providing constructive feedback; and Consolidate, which supports students in synthesizing key ideas through review, integration, and conceptual connection (Rowley et al., 2019; Tripod Education Partners, 2016). The third pillar, Academic Press, refers to classroom conditions that encourage sustained focus and high academic standards. It consists of Challenge, which promotes rigorous thinking, quality work, and perseverance, and Classroom Management (Control), which ensures orderly, respectful, and task-oriented learning environments (Tripod Education Partners, 2016).

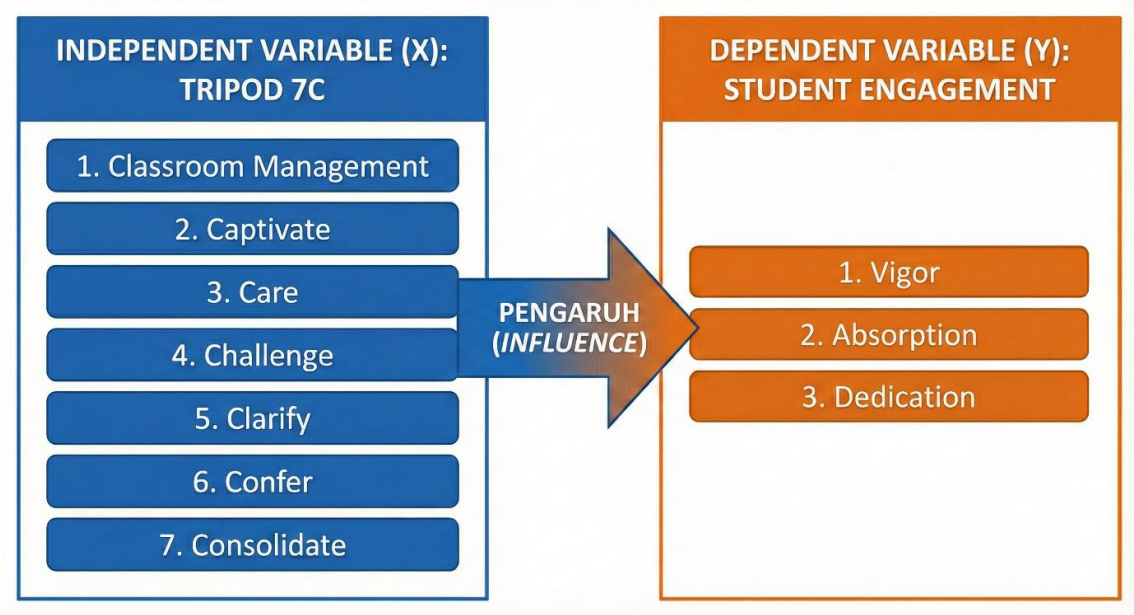
The theoretical mechanisms linking the Tripod 7Cs dimensions to student engagement are grounded in how lecturers' instructional behaviors shape students' affective, cognitive, and behavioral responses. Dimensions such as Care and Confer cultivate social support, which directly stimulates students' vigor by fostering emotional security and motivation during the learning process. The Clarify and Consolidate dimensions function as cognitive load regulators, enabling deeper absorption by organizing information in ways that reduce confusion and facilitate sustained concentration (Christensen & Bicknell, 2022; Divya, 2018). he Challenge dimension promotes a sense of meaning and academic purpose, thereby strengthening dedication as students strive to meet higher performance standards (Buch et al., 2018; Costantini et al., 2025). Similarly, Captivate plays a central role in sustaining situational interest, which enhances students' vigor through the enthusiasm and energy conveyed by lecturers during instruction (Alghamdi & Khadawardi, 2024; Quinlan, 2019; Wahyuni et al., 2025).

The Control dimension contributes to student engagement by creating a structured yet flexible classroom environment that balances order with autonomy, enabling students to develop sustained dedication toward long-term academic goals (Benlahcene et al., 2020; Yang et al., 2022). Conceptually, the integration of these seven dimensions forms a pedagogical ecosystem that supports not only knowledge acquisition but also the fulfillment of students' psychological needs for emotional safety, competence, and involvement (McKenney et al., 2015). In university settings, lecturers' ability to implement Confer effectively provides opportunities for active participation, which has been empirically associated with higher levels of absorption during academic discussions (Dzaiy & Abdullah, 2024; Peng et al., 2022). Likewise, the Care dimension fosters psychological safety, a foundational condition for vigor, as students feel secure in experimenting, expressing ideas, and learning from mistakes (Rustamova, 2025; Weiner et al., 2021).

The interaction between Clarify and Challenge ensures that students not only comprehend academic content but are also motivated to engage with it at deeper levels, thereby reinforcing dedication (Chisunum & Nwadiokwu, 2024; Skinner & Raine, 2022). hrough the lens of the Tripod 7Cs framework, student engagement emerges as the outcome of a dynamic interaction between lecturer competence and students' affective-behavioral responses (Odutayo et al., 2024). This study conceptualizes the 7Cs dimensions as distinct yet interrelated predictors of student engagement, particularly absorption, where effective classroom management plays a critical role in sustaining attention and learning focus (Phillips et al., 2021). The proposed conceptual framework explicitly links students' perceptions of teaching effectiveness, as operationalized by the 7Cs, to engagement dynamics in higher education

Figure 1

Conceptual Framework of Tripod 7C's to Student Engagement



Despite the growing recognition of lecturer competence as a determinant of student engagement, important empirical gaps remain. First, the Tripod 7Cs instrument has been rarely applied in higher education contexts, particularly for examining lecturer competence rather than school-level teaching. Second, existing research on student engagement has been disproportionately concentrated in Western educational settings, limiting the cultural generalizability of findings. Third, relatively few studies have examined which specific 7Cs dimensions exert significant influence on each engagement component (vigor, absorption, and dedication). Addressing these gaps is essential for developing context-sensitive and evidence-based strategies to enhance student engagement in non-Western higher education systems.

While prior studies have acknowledged the significance of lecturer competence in promoting student engagement, important aspects of this relationship have yet to be adequately examined. First, although the Tripod 7Cs framework has been extensively

validated and applied in K–12 settings, its empirical application within higher education—particularly in evaluating university lecturers rather than school teachers—remains limited. Existing studies tend to generalize teaching effectiveness as a unitary construct, offering limited insight into how specific instructional competencies differentially influence distinct components of student engagement, such as vigor, absorption, and dedication.

Second, much of the empirical evidence on student engagement and teaching effectiveness has been generated in Western educational contexts, raising questions about the cultural transferability of these findings. There is a notable scarcity of empirical studies examining the Tripod 7Cs framework in non-Western higher education systems, including Indonesia, where institutional structures, lecturer–student relationships, and classroom norms may differ substantially. While prior studies suggest that lecturer competence plays a role in shaping engagement, the extent to which each of the seven 7Cs dimensions uniquely contributes to student engagement in this context remains empirically underexplored.

Third, although student engagement is widely conceptualized as a multidimensional construct, few studies have systematically examined the differential predictive power of specific lecturer competencies on each engagement dimension. As a result, current evidence provides limited guidance for targeted faculty development, as it remains unclear which competencies should be prioritized to enhance particular engagement outcomes. Importantly, this study does not assume that all 7Cs dimensions exert equal influence; rather, it seeks to empirically test their relative contributions while acknowledging that contextual and methodological constraints may shape observed effects.

Accordingly, this study addresses these gaps by empirically examining the influence of lecturer competence, operationalized through the Tripod 7Cs framework, on the three core dimensions of student engagement among Indonesian university students. By disaggregating both lecturer competence and student engagement into their constituent dimensions, this research offers a more nuanced and context-sensitive understanding of how specific instructional behaviors relate to student engagement in higher education, thereby contributing a timely and empirically grounded extension of the Tripod 7Cs framework.

Based on these considerations, the following hypotheses are proposed:

H1: There is a significant influence of lecturers' competence, as conceptualized by the Tripod 7Cs framework, on students' vigor.

H2: There is a significant influence of lecturers' competence, as conceptualized by the Tripod 7Cs framework, on students' absorption.

H3: There is a significant influence of lecturers' competence, as conceptualized by the Tripod 7Cs framework, on students' dedication.

METHOD

This study employed a quantitative research design with a correlational approach to identify and analyze the relationship between lecturers' teaching competencies, as measured by the Tripod 7Cs framework, and student engagement. This design was selected because it enables the statistical testing of hypotheses regarding the extent to which the independent variables—Care, Confer, Captivate, Clarify, Consolidate, Challenge, and Classroom Management—predict variations in the dependent variables of student engagement, namely vigor, absorption, and dedication. The use of a survey-based method in data collection supports the objective of obtaining an empirical representation of students' perceptions of teaching effectiveness at the university level. Through this approach, the strength and direction of relationships among variables can be systematically examined, providing an empirical foundation for instructional improvement in Indonesian higher education contexts.

Participants and Procedure

The data collection technique in this study employed convenience sampling, targeting active undergraduate students at Universitas Nahdlatul Ulama Indonesia who were enrolled in semesters 2 through 8. Data were collected using the Google Forms platform. Prior to participation, all respondents were provided with an informed consent form, ensuring voluntary participation and ethical compliance. The final sample consisted of 129 students (N = 129), including 43 men (33.33%) and 86 women (66.67%).

Measures

The Student Engagement Scale

This study used the Utrecht Work Engagement Scale for Students (UWES-S), developed by Dimitriadou et al. (2020), to measure student engagement as a positive psychological state characterized by high levels of motivation and involvement in learning activities. The instrument consists of 17 items distributed across three dimensions. Vigor reflects mental resilience and sustained energy in facing academic challenges; Dedication represents enthusiasm, pride, and a strong sense of significance toward academic activities; and Absorption refers to deep concentration and enjoyment while engaging in learning tasks (Schaufeli & Bakker, 2004). Each item was rated using a seven-point Likert scale ranging from 0 (Never) to 6 (Every day).

The Effective Teaching Scale

Effective teaching reflects the extent to which instructional processes facilitate meaningful learning outcomes, including quality knowledge acquisition, deep understanding, sustained engagement, skill development, and academic achievement. The evaluation of teaching effectiveness should not be limited to assessments conducted by institutional supervisors, self-evaluations by lecturers, or student academic performance alone. Such approaches often overlook students' direct perceptions, despite their central role as primary stakeholders in the learning process (Wilkerson et al., 2000). Accordingly, this study employed the Tripod 7Cs instrument, developed by the Bill & Melinda Gates

Foundation as part of the Measures of Effective Teaching (MET) project, which captures students' evaluations of teaching effectiveness through structured feedback.

The instrument comprises 35 items organized into three overarching domains: Personal Support, Curricular Support, and Academic Press. Personal Support includes Care and Confer, emphasizing respectful, supportive, and relational interactions between lecturers and students. Curricular Support encompasses Captivate, Clarify, and Consolidate, reflecting instructional practices that promote engagement, clarity, and conceptual integration. Academic Press includes Challenge and Classroom Management, referring to instructional rigor and the maintenance of orderly, task-focused learning environments that encourage students to achieve their highest potential.

This study was conducted in accordance with the International Test Commission (ITC) guidelines to ensure conceptual and linguistic equivalence between the original English version and the Indonesian adaptation of the instrument (ITC, 2018). The adaptation process began with forward translation by a qualified translator, followed by back-translation conducted by an independent expert to ensure semantic consistency across versions. Expert judgment was subsequently employed to evaluate item clarity, cultural relevance, and readability for Indonesian university students prior to large-scale administration.

The adaptation process consisted of several stages. First, two linguists with English TOEFL scores above 500 and three subject matter experts with at least a master's degree in psychology were involved to minimize linguistic bias and ensure theoretical accuracy. Second, the Rasch measurement model was applied to examine construct validity at both the item and person levels, given its strength in evaluating measurement precision. Third, test administration and scoring procedures followed the guidelines of the original instruments. Finally, score interpretation was conducted using a norm-referenced approach, allowing comparisons across participants.

Data Analysis

The validity and reliability of the Indonesian versions of the UWES-S and Tripod 7Cs instruments were examined using the Rasch measurement model. Because the UWES-S employs polytomous response categories, the Rating Scale Model (RSM) was applied (Andrich, 1978). Rasch analyses were conducted separately for each dimension to evaluate the unidimensionality assumption, which was assessed using principal component analysis (PCA) of residuals. Unidimensionality was considered satisfactory when the residual variance explained by measures (RVEM) exceeded 40%, following (Linacre, 2006).

After confirming unidimensionality, model-data fit was evaluated using Infit and Outfit mean-square statistics, with acceptable values ranging from 0.6 to 1.4 (Bond & Fox, 2015). Items with fit statistics outside this range were reviewed for potential removal or revision. Negative point–measure correlation values were interpreted as indicators that

an item may not align with the intended construct, warranting elimination to preserve construct validity. All Rasch analyses were conducted using Winsteps version 3.73.
Once Rasch model assumptions were met, logit scores were extracted for each variable and used in subsequent regression analyses. Hypothesis testing was conducted using multiple regression analysis, examining the influence of the seven Tripod 7Cs dimensions on each engagement outcome (vigor, absorption, and dedication). In addition, a descriptive thematic analysis of open-ended responses was incorporated to complement the quantitative findings by identifying lecturer competencies perceived by students as particularly influential in enhancing engagement.

RESULTS

Rasch Model Analysis

Dimensionality

Based on the Rasch Rating Scale Model analysis, all dimensions met the unidimensionality assumption. The results are reflected in the residual variance explained by measures (RVEM), with all values exceeding the recommended threshold of 40%. Specifically, the RVEM values for the Effective Teaching dimensions were Captivate (54.8%), Care (62.7%), Challenge (44.7%), Clarify (56.1%), Confer (55.8%), Consolidate (48.3%), and Control (49.5%). In addition, the RVEM values for the three Student Engagement dimensions also met the unidimensionality criterion, namely Absorption (53.2%), Dedication (62.3%), and Vigor (54.4%).

Reliability, Item Measure, and Fit Statistics

All predictor and dependent variables in this study demonstrated acceptable to excellent internal consistency. Item separation reliability values ranged from 0.82 to 0.98 across most dimensions. One dimension, Challenge, yielded a lower reliability value (0.65). However, this dimension was retained because its Cronbach's alpha ($\alpha = 0.85$) exceeded the commonly accepted threshold of 0.70, indicating satisfactory internal consistency.

All test items from both predictor and outcome instruments exhibited adequate fit to the Rasch model. Specifically, Outfit mean-square (MNSQ) values ranged from 0.8 to 1.4, with the exception of one item in the Clarify dimension, which was removed because its fit statistic fell outside the acceptable range. Furthermore, no items exhibited negative point–measure correlation values, indicating that all retained items contributed meaningfully to their respective constructs.

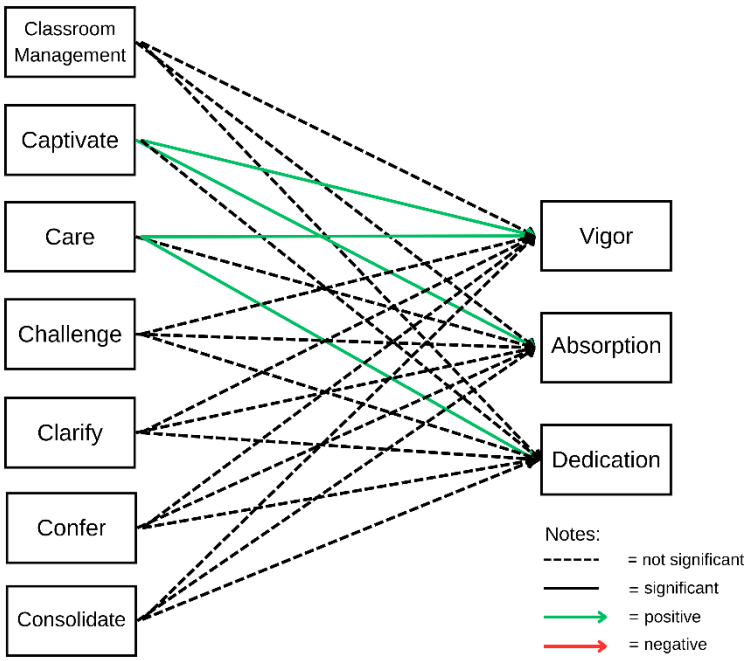
Statistical Analysis Result

This section presents the results of the statistical analyses conducted to test the influence of the seven dimensions of Effective Teaching (7Cs) on the three components of student engagement: Vigor, Absorption, and Dedication. Hierarchical multiple linear regression analyses were performed separately for each dependent variable using data from 126 participants (N = 126).

Prior to hypothesis testing, a series of classical assumption tests were conducted. Variance Inflation Factor (VIF) values for all predictors were below the critical threshold of 5.0, indicating the absence of multicollinearity. In addition, Durbin–Watson statistics fell within acceptable ranges, supporting the assumption of independence of residuals. The results of the regression analyses are presented in Figure 2 and Table 1.

Figure 2

Multiple regression model framework of 7C's Effective Teaching on three factors of student engagement



The Effect of the 7Cs Dimensions on Vigor

Regression analysis predicting Vigor indicated that the final model (Model 7), which included all seven 7Cs dimensions, was statistically significant, $F(7, 118) = 4.51$, $p < .001$. This model explained 16.4% of the variance in Vigor (Adjusted $R^2 = 0.164$).

Partial coefficient analyses revealed that two dimensions significantly predicted Vigor. The Captivate dimension had a positive and statistically significant effect ($\beta = 0.260$, $p = .044$), indicating that lecturers' ability to present material in engaging ways is associated with higher levels of student energy and enthusiasm. In addition, the Care dimension also showed a significant positive effect ($\beta = 0.231$, $p = .040$), suggesting that supportive and empathetic instructional environments contribute to increased student vitality.

The remaining five dimensions—Control ($\beta = -0.143$, $p = .144$), Challenge ($\beta = 0.193$, $p = .180$), Clarify ($\beta = -0.056$, $p = .676$), Confer ($\beta = 0.113$, $p = .433$), and Consolidate ($\beta = -0.166$, $p = .307$)—did not demonstrate statistically significant effects on Vigor.

Table 1
Summary of Multiple Regression Analysis Results for Vigor, Absorption, and Dedication

Predictor Variable (7C's)	Vigor β (p)	Absorption β (p)	Dedication β (p)
Classroom Management	-0.143 (.144)	-0.087 (.354)	-0.089 (.344)
Captivate	**0.260 (.044)***	**0.429 (<.001)***	0.237 (.056)
Care	**0.231 (.040)***	0.127 (.238)	**0.253 (.020)***
Challenge	0.193 (.180)	0.153 (.267)	0.141 (.305)
Clarify	-0.056 (.676)	-0.036 (.778)	-0.184 (.155)
Confer	0.113 (.433)	0.172 (.215)	0.188 (.177)
Consolidate	-0.166 (.307)	-0.231 (.138)	< 0.001 (.999)
Adjusted R2	**0.164**	**0.233**	**0.227**
F**-statistic**	**4.51**	**6.43**	**6.25**
p **(Model)**	**<.001**	**<.001**	**<.001**

*Note. β = Standardized regression coefficient. *Significant at p<.05.*

The Effect of Dimension 7C on Absorption

The regression model predicting Absorption demonstrated a statistically significant overall fit, $F(7, 118) = 6.43$, $p < .001$. This model accounted for 23.3% of the variance in Absorption (Adjusted $R^2 = 0.233$), representing the highest explained variance among the three engagement dimensions examined.

Examination of individual predictors revealed that Captivate emerged as the sole statistically significant predictor of Absorption ($\beta = 0.429$, $p < .001$). The magnitude of this coefficient indicates that lecturers' ability to capture and sustain students' interest is strongly associated with students' deep concentration and immersion in learning activities. No other 7Cs dimensions reached statistical significance in predicting Absorption when included simultaneously in the model.

The Effect of the 7Cs Dimensions on Dedication

The regression model examining Dedication was also statistically significant, $F(7, 118) = 6.25$, $p < .001$, explaining 22.7% of the variance in Dedication (Adjusted $R^2 = 0.227$).

Unlike the models for Vigor and Absorption, Care emerged as the primary and only significant predictor of Dedication ($\beta = 0.253$, $p = .020$). This finding indicates that when students perceive their lecturers as genuinely concerned about their academic

development and well-being, they are more likely to experience stronger feelings of pride, meaning, and commitment toward their coursework.

Although Captivate approached statistical significance ($p = .056$), it did not meet the conventional alpha level ($\alpha = .05$). The remaining dimensions did not demonstrate significant effects on Dedication. A comprehensive summary of standardized regression coefficients for all three models is presented in Table 1.

Overall Results Summary

Taken together, the results demonstrate that not all dimensions of lecturer competence exert equal influence on student engagement. Rather, Captivate and Care consistently emerged as the most influential dimensions, while other competencies showed limited or non-significant predictive effects across engagement components. These findings provide empirical support for the differential role of specific lecturer behaviors in shaping distinct aspects of student engagement.

Thematic Analysis of Students' Perceptions of Effective Teaching Practices

This study also conducted a descriptive qualitative analysis to further explore students' perceptions of their lecturers' teaching practices, thereby complementing and enriching the quantitative findings. A total of 129 students responded to eight open-ended questions. Three questions asked respondents to rank the most frequently perceived negative attributes of their lecturers, while two questions focused on ranking the most frequently perceived positive attributes. The remaining questions explored broader perceptions, including "What kind of lecturer do you like (teaching style, attitude, personality, etc.)?" and "What do you think makes an effective lecturer?"

A combined thematic content analysis approach was employed. The Tripod 7Cs framework served as a deductive analytical guide, while the coding process remained open to inductively emerging themes that extended beyond the predefined framework.

The most dominant positive attribute identified by students was Clarify, which was described as lecturers' ability to explain material systematically, clearly, and comprehensively. Students emphasized clarity as a core instructional quality that facilitates understanding and reduces cognitive burden. Illustrative responses included: "The teaching method is clear, structured, and uses real-life examples to make the material easier to understand" (Respondent #1); "Relates the material to real life to make it more relevant" (Respondent #27); "The explanations are straightforward and not long-winded" (Respondent #89); and "If there are mathematical problems, they are explained step by step, and if there are reasoning problems, students are encouraged to discuss them" (Respondent #67).

The second most frequently identified positive attribute was Care, which students associated with a supportive, empathetic, and approachable lecturer disposition. Care was reflected in lecturers' willingness to listen, provide guidance without judgment, and treat students fairly. Representative responses included: "The lecturer's attitude is always supportive and provides guidance without judgment" (Respondent #59); "A lecturer who

is willing to listen and understand students" (Respondent #14); "Fair in giving grades and opportunities to all students" (Respondent #78); and "I appreciate lecturers who are friendly and care about student development."

The third prominent positive attribute was Captivate, described as lecturers' ability to deliver material in an engaging and dynamic manner that stimulates student involvement. Students highlighted interactive instructional strategies and an enjoyable classroom atmosphere as key components of effective teaching. Examples included: "Using interactive methods such as discussions or case studies" (Respondent #31); "Not just lecturing, but actively involving students" (Respondent #8); "Lecturers who can lighten the mood so the class does not feel tense" (Respondent #101); and "Learning is interspersed with humor or relevant stories" (Respondent #56).

Conversely, the most frequently reported negative attribute was the absence of Clarify, indicating insufficient clarity in content delivery. Students identified unclear explanations as a significant barrier to learning. Common concerns included: "The material is delivered too quickly, making it difficult to understand" (Respondent #34); "The lecturer is not clear when explaining and sometimes only reads from slides" (Respondent #98); "Assignments are given without first explaining the material" (Respondent #121); and "Not providing enough examples relevant to the material being taught" (Respondent #13).

The second most frequently cited negative attribute was a lack of Captivate, reflecting monotonous instructional styles and limited interaction. Students expressed dissatisfaction with static teaching approaches, as illustrated by comments such as: "The lecturer delivers material continuously without allowing discussion" (Respondent #61); "Too rigid and serious, making the class atmosphere tense" (Respondent #99); "The teaching style lacks variety, so the class becomes monotonous" (Respondent #108); and "There is no interaction, just explaining material from the textbook" (Respondent #37).

Interestingly, a third category of negative perceptions emerged that did not directly align with the Tripod 7Cs framework, namely professionalism and ethical conduct. Student concerns in this category primarily related to punctuality, fairness, and lecturer demeanor. Examples included: "Too many last-minute schedule changes" (Respondent #66); "The lecturer is overly sensitive and assumes students are not serious" (Respondent #3); "The lecturer smokes in the classroom" (Respondent #87); "Makes insinuations toward students and assumes they are always right" (Respondent #102); and "Does not sufficiently consider individual effort in assessment" (Respondent #83).

Overall, the thematic findings indicate that students conceptualize effective teaching around three primary pillars: clear and understandable instruction (Clarify), a caring and supportive lecturer–student relationship (Care), and engaging instructional delivery (Captivate). Conversely, deficiencies in Clarify and Captivate, along with concerns related to professionalism, were identified as major obstacles to effective learning experiences.

DISCUSSION

This study aimed to examine lecturer competence through the seven dimensions of the Tripod 7Cs framework—Personal Support (Care and Confer), Curricular Support (Captivate, Clarify, and Consolidate), and Academic Press (Challenge and Classroom Management)—in relation to student engagement in higher education. By disaggregating both lecturer competence and student engagement into their constituent dimensions, this study responds directly to calls in the literature for more nuanced analyses of teaching effectiveness and its differential impact on students' learning experiences. The findings indicate that, among the seven competencies, Captivate and Care emerged as the most influential predictors of key engagement dimensions, while thematic analysis further highlighted the importance of Clarify from students' perspectives.

First, the Captivate dimension—defined as lecturers' ability to design engaging instruction and sustain student interest—played a central role in predicting Vigor and Absorption. This finding aligns with prior research emphasizing that engaging instructional delivery functions as a cognitive hook, maintaining students' attention and encouraging deeper immersion in learning activities (Barut Tugtekin & Dursun, 2022; Ma, 2023). The strong predictive effect of Captivate on Absorption is particularly noteworthy, as it suggests that students' experience of deep concentration and flow is closely tied to lecturers' capacity to stimulate situational interest. This supports theoretical perspectives from cognitive psychology, which posit that the human brain naturally disengages from monotonous stimuli, thereby necessitating instructional strategies that incorporate variety, storytelling, and interactive elements to sustain attention (Al-Thani & Ahmad, 2025).

These findings are also consistent with Self-Determination Theory, which emphasizes the role of interest and relevance in fostering intrinsic motivation. When students perceive learning activities as engaging and meaningful, they are more likely to feel competent and autonomous, thereby strengthening their motivation and engagement (Wang et al., 2019). The present results extend this theoretical insight by demonstrating that Captivate is not merely beneficial in general terms, but is a specific and dominant predictor of Absorption within a higher education context. This interpretation is further reinforced by the qualitative findings, in which students consistently described effective lecturers as those who could "bring the class to life" through interactive and relatable instructional practices. Moreover, prior studies have demonstrated that lecturer enthusiasm and engaging delivery styles play a crucial role in sustaining students' attention and motivation during instruction. Lecturers who convey passion and energy in their teaching are more likely to stimulate students' emotional involvement, thereby enhancing engagement and persistence in learning (Altun, 2017). From a cognitive perspective, attention-retention research emphasizes that instructional content must be delivered in ways that continuously re-engage learners, as sustained attention cannot be assumed in traditional lecture formats (Kravchenko & Cass, 2018). Recent evidence from

higher education further supports this view, showing that interactive storytelling, dynamic presentation techniques, and participatory instructional strategies significantly enhance student engagement and attentional focus in university learning environments (Hisey et al., 2024).

The second key finding concerns the role of Care, which emerged as the primary predictor of Vigor and Dedication. Care reflects lecturers' concern for students' academic and emotional well-being, as well as their ability to create supportive and respectful learning environments. This finding underscores the importance of psychological safety in higher education classrooms, as students who perceive their lecturers as caring are more likely to invest energy in learning and develop a sense of pride and commitment toward their studies. Prior research has demonstrated that supportive teacher–student relationships enhance motivation, resilience, and academic performance (Aldrup et al., 2022), and the present study corroborates these findings within an Indonesian university context. This interpretation is consistent with the job demands–resources framework, which posits that supportive relational resources provided by instructors enhance students' energy, resilience, and sustained involvement in learning activities (Bakker et al., 2015). When students perceive care and emotional support from their lecturers, these resources function as motivational drivers that strengthen vigor and reinforce dedication toward academic goals.

From a theoretical standpoint, Care can be understood as a foundational condition for engagement, enabling students to participate actively without fear of negative evaluation or failure. When students feel emotionally supported, they are more likely to demonstrate vigor through active participation and dedication through sustained commitment to academic goals (Bakker et al., 2015). The qualitative findings further substantiate this interpretation, as students explicitly expressed appreciation for lecturers who were approachable, empathetic, and fair, while simultaneously criticizing those perceived as distant or unsupportive. This convergence between quantitative and qualitative results strengthens the internal validity of the findings and highlights the centrality of Care as a core instructional competency.

An interesting and theoretically significant finding relates to the Clarify dimension. While statistical analyses did not reveal a significant predictive effect of Clarify on any of the engagement dimensions, the thematic analysis identified Clarify as the most frequently mentioned attribute of effective teaching from students' perspectives. This apparent discrepancy suggests that Clarify may function as a "hygiene factor," rather than a motivational driver, consistent with Herzberg's two-factor theory. In this view, clear explanations and structured instruction are essential prerequisites for learning, but their presence alone may not be sufficient to elevate engagement beyond a baseline level (Serki & Bolkan, 2024).

Accordingly, Clarify appears to play a protective role by preventing disengagement, rather than actively stimulating higher levels of vigor, absorption, or

dedication. When clarity is absent, students experience frustration and dissatisfaction, as reflected in the qualitative complaints regarding unclear explanations and insufficient examples. However, once a minimum standard of clarity is met, additional gains in engagement may depend more heavily on relational and motivational dimensions such as Care and Captivate (Egeberg & McConney, 2018). This interpretation offers a theoretically grounded explanation for why Clarify was highly salient qualitatively yet statistically non-significant, and it underscores the value of integrating qualitative data to contextualize quantitative findings.

Other dimensions of lecturer competence—namely Challenge, Consolidate, Classroom Management, and Confer—did not demonstrate significant direct effects on student engagement in the regression models. These non-significant findings should not be interpreted as evidence of irrelevance, but rather as indications that their influence may be indirect or contingent upon other factors. One plausible explanation is the threshold effect, whereby most lecturers in the sampled university may already meet acceptable standards in these competencies, resulting in limited variability and reduced statistical power to detect effects. Additionally, these dimensions may exert their influence through mediating variables, such as motivation or self-regulation, rather than directly impacting engagement outcomes.

Taken together, these findings directly address the research gaps identified in the Introduction. First, this study provides empirical evidence that the Tripod 7Cs framework is applicable and analytically meaningful in higher education, extending its use beyond its traditional K–12 focus. Second, by situating the analysis within an Indonesian university context, the study contributes context-sensitive evidence from a non-Western setting, addressing the geographical imbalance in prior research. Third, and most importantly, the study demonstrates that specific lecturer competencies differentially predict distinct dimensions of student engagement, thereby moving beyond generalized claims about "effective teaching" and offering a more precise, actionable understanding of instructional practice.

Implications and Limitations

From a practical perspective, the findings suggest that faculty development initiatives should prioritize relational and motivational competencies, particularly Care and Captivate, alongside foundational instructional clarity. Training programs that focus exclusively on content delivery and clarity may be insufficient to foster high levels of engagement unless complemented by strategies that enhance emotional support and instructional engagement. For university leaders, these results underscore the importance of cultivating institutional cultures that value both pedagogical skill and relational competence.

Despite these contributions, several limitations should be acknowledged. The study relied on convenience sampling within a single institution, which may limit the generalizability of the findings. In addition, the use of self-report measures introduces the

potential for response bias, although this concern is partially mitigated by the triangulation of quantitative and qualitative data. Future research is encouraged to replicate this study across diverse institutional contexts, employ longitudinal designs, and explore potential mediating or moderating variables that may further clarify the mechanisms linking lecturer competence and student engagement.

CONCLUSION

This study provides empirical evidence demonstrating how the Tripod 7Cs framework operates within the context of higher education in Indonesia. The findings indicate that Care and Captivate emerge as the primary predictors of student engagement, while Clarify functions as a foundational prerequisite rather than a direct driver of engagement. These results suggest that clear instruction alone is insufficient to foster high levels of engagement unless it is accompanied by relational support and engaging instructional delivery.

From a lecturer development perspective, the findings highlight the importance of designing faculty training programs that extend beyond technical clarity of instruction. Lecturer development initiatives should therefore emphasize relationship-building competencies (Care) and instructional engagement strategies (Captivate), alongside maintaining baseline instructional clarity. For university leaders and academic policymakers, the results offer evidence-based guidance for shaping professional development policies that promote both pedagogical competence and emotionally supportive teaching practices.

Nevertheless, this study has several limitations that warrant consideration. The research was conducted at a single university, which may limit the generalizability of the findings across diverse higher education institutions with varying cultural and organizational characteristics. In addition, the reliance on student self-report measures introduces the potential for subjective bias or social desirability effects, which may influence perceptions of lecturer competence. Future research is therefore encouraged to expand the sample across multiple institutions, incorporate longitudinal designs to capture changes in engagement over time, and explore mediating or moderating variables that may further clarify the mechanisms linking lecturer competence and student engagement.

In conclusion, this study demonstrates that engaging students in higher education requires more than effective content delivery. Sustainable student engagement is strengthened through emotional connection, instructional enthusiasm, and supportive lecturer–student relationships, which together create meaningful and transformative learning experiences. Recognizing and cultivating these competencies is essential for higher education institutions seeking to enhance student engagement and learning quality in increasingly complex academic environments.

REFERENCES

Abidin, Z., & Muhammad, N. (2024). Effective classroom management as a quick solution to improve student participation and motivation in the learning process. *Zabags International Journal of Education, 2*(2), 75–88. https://doi.org/10.61233/zijed.v2i2.22

Aldrup, K., Carstensen, B., & Klusmann, U. (2022). Is empathy the key to effective teaching? A systematic review of its association with teacher–student interactions and student outcomes. *Educational Psychology Review, 34*(3), 1177–1216. https://doi.org/10.1007/s10648-021-09649-y

Al-Thani, N. J., & Ahmad, Z. (2025). *Teaching and learning with research cognitive theory: Unlocking curiosity and creativity for problem-solving skills*. Springer Nature Switzerland. https://doi.org/10.1007/978-3-031-87544-1

Altun, M. (2017). The role of passion in effective teaching and learning. *International Journal of Social Sciences & Educational Studies, 3*(3), 155–158. https://doi.org/10.23918/ijsses.v3i3p155

Anwar, N., Juanda, Anderson, J., & Williams, T. (2024). Applying data science to analyze and improve student learning outcomes in educational environments. *International Transactions on Education Technology (ITEE), 3*(1), 72–83. https://doi.org/10.33050/itee.v3i1.679

Archambault, I., Janosz, M., Fallu, J., & Pagani, L. S. (2009). Student engagement and its relationship with early high school dropout. *Journal of Adolescence, 32*(3), 651–670. https://doi.org/10.1016/j.adolescence.2008.06.007

Ayala, J. C., & Manzano, G. (2018). Academic performance of first-year university students: The influence of resilience and engagement. *Higher Education Research & Development, 37*(7), 1321–1335. https://doi.org/10.1080/07294360.2018.1502258

Bakker, A. B., Sanz Vergel, A. I., & Kuntze, J. (2015). Student engagement and performance: A weekly diary study on the role of openness. *Motivation and Emotion, 39*(1), 49–62. https://doi.org/10.1007/s11031-014-9422-5

Barut Tugtekin, E., & Dursun, O. O. (2022). Effect of animated and interactive video variations on learners' motivation in distance education. *Education and Information Technologies, 27*(3), 3247–3276. https://doi.org/10.1007/s10639-021-10735-5

Bayoumy, H. M. M., & Alsayed, S. (2021). Investigating relationship of perceived learning engagement, motivation, and academic performance among nursing students: A multisite study. *Advances in Medical Education and Practice, 12*, 351–369. https://doi.org/10.2147/AMEP.S272745

Benlahcene, A., Awang-Hashim, R., & Kaur, A. (2020). Personal best goals: Do they mediate the relationship between teacher autonomy support and student engagement? *Malaysian Journal of Learning and Instruction, 17*(1), 25–49. https://doi.org/10.32890/mjli2020.17.1.2

Bond, T. G., & Fox, C. M. (2015). *Applying the Rasch model: Fundamental measurement*

in the human sciences (3rd ed.). Routledge.

Bowden, J. L.-H., Tickle, L., & Naumann, K. (2021). The four pillars of tertiary student engagement and success: A holistic measurement approach. *Studies in Higher Education, 46*(6), 1207–1224. https://doi.org/10.1080/03075079.2019.1672647

Buch, B., Christiansen, R. B., Hansen, D., Petersen, A. K., & Skovbjerg Sørensen, R. (2018). Using the 7Cs framework for designing MOOCs in blended contexts—New perspectives and ideas. *Universal Journal of Educational Research, 6*(3), 421–429. https://doi.org/10.13189/ujer.2018.060309

Burke, C. M., Montross, L. P., & Dianova, V. G. (2024). Beyond the classroom: An analysis of internal and external factors related to students' love of learning and educational outcomes. *Data, 9*(6), Article 81. https://doi.org/10.3390/data9060081

Catacutan, A. B., Kilag, O. K. T., Jr., D. F. M., Tiongzon, B. D., Malbas, M. H., & Abendan, C. F. K. (2023). Competence-based curriculum development in a globalized education landscape. *Excellencia International Multi-Disciplinary Journal of Education, 1*(4), 270–282.

Chagas, F. A. L. D., & Muñoz-García, A. (2023). Examining the influence of meaning in life and religion/spirituality on student engagement and learning satisfaction: A comprehensive analysis. *Religions, 14*(12), Article 1508. https://doi.org/10.3390/rel14121508

Cheng, X. (2023). Looking through goal theories in language learning: A review on goal setting and achievement goal theory. *Frontiers in Psychology, 13*, Article 1035223. https://doi.org/10.3389/fpsyg.2022.1035223

Chisunum, J. I., & Nwadiokwu, C. N. (2024). Enhancing student engagement through practical production and utilization of instructional materials in an educational technology class: A multifaceted approach. *NIU Journal of Educational Research, 10*(2), 81–89. https://doi.org/10.58709/niujed.v10i2.2002

Chiu, T. K. F. (2023). Student engagement in K-12 online learning amid COVID-19: A qualitative approach from a self-determination theory perspective. *Interactive Learning Environments, 31*(6), 3326–3339. https://doi.org/10.1080/10494820.2021.1926289

Christensen, W., & Bicknell, K. (2022). Cognitive control, intentions, and problem solving in skill learning. *Synthese, 200*(6), Article 460. https://doi.org/10.1007/s11229-022-03920-7

Costantini, A., Bakker, A. B., & Scharp, Y. S. (2025). Playful study design: A novel approach to enhancing student well-being and academic performance. *Educational Psychology Review, 37*(2), Article 47. https://doi.org/10.1007/s10648-025-10022-6

Dimitriadou, S., Lavidas, K., Karalis, T., & Ravanis, K. (2020). Study engagement in university students: A confirmatory factor analysis of the Utrecht Work Engagement Scale with Greek students. *Journal of Well-Being Assessment, 4*(3), 291–307. https://doi.org/10.1007/s41543-021-00035-7

Divya, P. (2018). *Reading behaviour in digital environment: A study among students of universities in Kerala* (Doctoral dissertation). University of Calicut.

Długosz, P., & Liszka, D. (2021). The relationship between mental health, educational burnout and strategies for coping with stress among students: A cross-sectional study of Poland. *International Journal of Environmental Research and Public Health, 18*(20), Article 10827. https://doi.org/10.3390/ijerph182010827

Dzaiy, A. H. S., & Abdullah, S. A. (2024). The use of active learning strategies to foster effective teaching in higher education institutions. *Zanco Journal of Humanity Sciences, 28*(4), 328–351. https://doi.org/10.21271/zjhs.28.4.18

Egeberg, H., & McConney, A. (2018). What do students believe about effective classroom management? A mixed-methods investigation in Western Australian high schools. *The Australian Educational Researcher, 45*(2), 195–216. https://doi.org/10.1007/s13384-017-0250-y

Ekornes, S. (2017). Teacher stress related to student mental health promotion: The match between perceived demands and competence to help students with mental health problems. *Scandinavian Journal of Educational Research, 61*(3), 333–353. https://doi.org/10.1080/00313831.2016.1147068

Ferrer, J., Ringer, A., Saville, K., Parris, M. A., & Kashi, K. (2022). Students' motivation and engagement in higher education: The importance of attitude to online learning. *Higher Education, 83*(2), 317–338. https://doi.org/10.1007/s10734-020-00657-5

García-Pérez, L., García-Garnica, M., & Olmedo-Moreno, E. M. (2021). Skills for a working future: How to bring about professional success from the educational setting. *Education Sciences, 11*(1), Article 27. https://doi.org/10.3390/educsci11010027

Graham, S. (2022). Self-efficacy and language learning—What it is and what it isn't. *The Language Learning Journal, 50*(2), 186–207. https://doi.org/10.1080/09571736.2022.2045679

Hambleton, R. K. (2001). The next generation of the ITC test translation and adaptation guidelines. *European Journal of Psychological Assessment, 17*(3), 164–172. https://doi.org/10.1027//1015-5759.17.3.164

Hisey, F., Zhu, T., & He, Y. (2024). Use of interactive storytelling trailers to engage students in an online learning environment. *Active Learning in Higher Education, 25*(1), 151–166. https://doi.org/10.1177/14697874221107574

Holen, S., Waaktaar, T., & Sagatun, Å. (2018). A chance lost in the prevention of school dropout? Teacher–student relationships mediate the effect of mental health problems on noncompletion of upper-secondary school. *Scandinavian Journal of Educational Research, 62*(5), 737–753. https://doi.org/10.1080/00313831.2017.1306801

International Test Commission. (2018). ITC guidelines for translating and adapting tests (2nd ed.). *International Journal of Testing, 18*(2), 101–134. https://doi.org/10.1080/15305058.2017.1398166

Julianto, P., & Halim, A. (2025). The effect of lecturer characteristics, lecturer reward system, and lecturer commitment on lecturer welfare in private universities in Jambi Province. *Greenation International Journal of Tourism and Management (GIJTM), 3*(3), 296–305.

Kotera, Y., Lieu, J., Kirkman, A., Barnes, K., Liu, G. H. T., Jackson, J., Wilkes, J., & Riswani, R. (2022). Mental wellbeing of Indonesian students: Mean comparison with UK students and relationships with self-compassion and academic engagement. *Healthcare, 10*(8), Article 1439. https://doi.org/10.3390/healthcare10081439

Kravchenko, M., & Cass, A. K. (2018). Attention retention: Ensuring your educational content is engaging your students. In V. L. Uskov, R. J. Howlett, & L. C. Jain (Eds.), *Smart education and e-learning 2017* (Vol. 75, pp. 358–370). Springer. https://doi.org/10.1007/978-3-319-59451-4_36

Linacre, J. M. (2006). Rasch measurement. *Transactions of the Rasch Measurement, 20*(1), 1045–1054.

Liu, Y., Ma, S., & Chen, Y. (2024). The impacts of learning motivation, emotional engagement and psychological capital on academic performance in a blended learning university course. *Frontiers in Psychology, 15*, Article 1357936. https://doi.org/10.3389/fpsyg.2024.1357936

Ma, Y.-C. (2023). Using participatory teaching in hands-on courses: Exploring the influence of teaching cases on learning motivation. *Education Sciences, 13*(6), Article 547. https://doi.org/10.3390/educsci13060547

Martinot, D., Sicard, A., Gul, B., Yakimova, S., Taillandier-Schmitt, A., & Maintenant, C. (2022). Peers and teachers as the best source of social support for school engagement for both advantaged and priority education area students. *Frontiers in Psychology, 13*, Article 958286. https://doi.org/10.3389/fpsyg.2022.958286

McArthur, J. (2023). Rethinking authentic assessment: Work, well-being, and society. *Higher Education, 85*(1), 85–101. https://doi.org/10.1007/s10734-022-00822-y

McKenney, S., Kali, Y., Markauskaite, L., & Voogt, J. (2015). Teacher design knowledge for technology-enhanced learning: An ecological framework for investigating assets and needs. *Instructional Science, 43*(2), 181–202. https://doi.org/10.1007/s11251-014-9337-2

Niemi, K. (2021). 'The best guess for the future?' Teachers' adaptation to open and flexible learning environments in Finland. *Education Inquiry, 12*(3), 282–300. https://doi.org/10.1080/20004508.2020.1816371

Nurmala, I., Muthmainnah, Hariastuti, I., Devi, Y. P., & Ruwandasari, N. (2021). The role of knowledge, attitude, gender, and school grades in preventing drug use: Findings on students' intentions to participate in peer education program. *Journal of Public Health Research, 10*(3), Article 1972. https://doi.org/10.4081/jphr.2021.1972

Olayide Odutayo, A., Samuel Jacob, U., Aina Gbolade Opesemowo, O., & Omoponle Adewuyi, H. (2024). Lecturer–student interaction patterns and academic engagement: The university dynamics. *Journal of Education and Teaching (JET),*

5(3), 230–246. https://doi.org/10.51454/jet.v5i3.427

Peng, L., Deng, Y., & Jin, S. (2022). The evaluation of active learning classrooms: Impact of spatial factors on students' learning experience and learning engagement. *Sustainability, 14*(8), Article 4839. https://doi.org/10.3390/su14084839

Ponsford, R., Falconer, J., Melendez-Torres, G., & Bonell, C. (2022). Whole-school interventions promoting student commitment to school to prevent substance use and violence: Synthesis of theories of change. *Health Education Journal, 81*(5), 614–637. https://doi.org/10.1177/00178969221100892

Puiu, S., Udriștioiu, M. T., Petrișor, I., Yılmaz, S. E., Pfefferová, M. S., Raykova, Z., Yildizhan, H., & Marekova, E. (2024). Students' well-being and academic engagement: A multivariate analysis of the influencing factors. *Healthcare, 12*(15), Article 1492. https://doi.org/10.3390/healthcare12151492

Quinlan, K. M. (2019). What triggers students' interest during higher education lectures? Personal and situational variables associated with situational interest. *Studies in Higher Education, 44*(10), 1781–1792. https://doi.org/10.1080/03075079.2019.1665325

Qureshi, M. A., Khaskheli, A., Qureshi, J. A., Raza, S. A., & Yousufi, S. Q. (2023). Factors affecting students' learning performance through collaborative learning and engagement. *Interactive Learning Environments, 31*(4), 2371–2391. https://doi.org/10.1080/10494820.2021.1884886

Raghunathan, S., Darshan Singh, A., & Sharma, B. (2022). Study of resilience in learning environments during the COVID-19 pandemic. *Frontiers in Education, 6*, Article 677625. https://doi.org/10.3389/feduc.2021.677625

Ramadani, S., Sinaga, P., & Liliawati, W. (2025). Critical thinking in science learning: Systematic literature review. *Jurnal Pemberdayaan Masyarakat, 4*(1), 183–196. https://doi.org/10.46843/jpm.v4i1.378

Rohm, A. J., Stefl, M., & Ward, N. (2021). Future proof and real-world ready: The role of live project-based learning in students' skill development. *Journal of Marketing Education, 43*(2), 204–215. https://doi.org/10.1177/02734753211001409

Rowley, J. F. S., Phillips, S. F., & Ferguson, R. F. (2019). The stability of student ratings of teacher instructional practice: Examining the one-year stability of the 7Cs composite. *School Effectiveness and School Improvement, 30*(4), 549–562. https://doi.org/10.1080/09243453.2019.1620293

Rustamova, B. (2025). Faculty–student relationships and psychological safety in the university setting. *New Renaissance International Scientific Journal, 2*(5), 1827–1831. https://doi.org/10.5281/zenodo.14990112

Saeed Alghamdi, M., & Abdulrhamn Khadawardi, H. (2024). Investigating the impact of teacher enthusiasm on engagement among Saudi first-year EFL students. *International Journal of English Language Education, 12*(2), 86–96. https://doi.org/10.5296/ijele.v12i2.22241

Schaufeli, W. B., & Bakker, A. B. (2004). Job demands, job resources, and their

relationship with burnout and engagement: A multi-sample study. *Journal of Organizational Behavior, 25*(3), 293–315. https://doi.org/10.1002/job.248

Schunk, D. H., & DiBenedetto, M. K. (2021). Self-efficacy and human motivation. In *Advances in motivation science* (Vol. 8, pp. 153–179). Elsevier. https://doi.org/10.1016/bs.adms.2020.10.001

Serki, N., & Bolkan, S. (2024). The effect of clarity on learning: Impacting motivation through cognitive load. *Communication Education, 73*(1), 29–45. https://doi.org/10.1080/03634523.2023.2250883

Shao, Y., Kang, S., Lu, Q., Zhang, C., & Li, R. (2024). How peer relationships affect academic achievement among junior high school students: The chain mediating roles of learning motivation and learning engagement. *BMC Psychology, 12*(1), Article 278. https://doi.org/10.1186/s40359-024-01780-z

Shernof, D. J., Ruzek, E. A., Sannella, A. J., Schorr, R. Y., Sanchez-Wall, L., & Bressler, D. M. (2017). Student engagement as a general factor of classroom experience: Associations with student practices and educational outcomes in a university gateway course. *Frontiers in Psychology, 8*, Article 994. https://doi.org/10.3389/fpsyg.2017.00994

Siregar, R. A., Purnawarman, P., Damayanti, I. L., & Raja, F. D. (2024). The lonely journey of EFL pre-service teachers in remote areas: Readiness and challenges in integrating ICT in teaching. *Teaching English with Technology, 24*(1), 59–78. https://doi.org/10.56297/FSYB3031/WWCS6171

Skinner, E. A., & Raine, K. E. (2022). Unlocking the positive synergy between engagement and motivation. In A. L. Reschly & S. L. Christenson (Eds.), *Handbook of research on student engagement* (pp. 25–56). Springer. https://doi.org/10.1007/978-3-031-07853-8_2

Tang, H., Datu, J. A. D., Liu, Z., Shen, J., & Xing, Q. (2023). The engaged lives of encouraged students: Academic encouragement, grit and academic engagement in Chinese first year undergraduate students. *Current Psychology, 42*(23), 19526–19536. https://doi.org/10.1007/s12144-022-03057-3

Tong, D. H., Uyen, B. P., & Ngan, L. K. (2022). The effectiveness of blended learning on students' academic achievement, self-study skills and learning attitudes: A quasi-experiment study. *Heliyon, 8*(12), Article e12657. https://doi.org/10.1016/j.heliyon.2022.e12657

Tripod Education Partners. (2016). *Guide to Tripod's 7Cs*. Tripod Education Partners.

Virtanen, T. E., Lerkkanen, M.-K., Poikkeus, A.-M., & Kuorelahti, M. (2015). The relationship between classroom quality and students' engagement in secondary school. *Educational Psychology, 35*(8), 963–983. https://doi.org/10.1080/01443410.2013.822961

Vomund, J., & Miller, A. D. (2025). The promise and process of adaptive teacher empathy to support equity in diverse classrooms. *Educational Psychologist, 60*(2), 88–105. https://doi.org/10.1080/00461520.2024.2418070

Wang, C. K. J., Liu, W. C., Kee, Y. H., & Chian, L. K. (2019). Competence, autonomy,

and relatedness in the classroom: Understanding students' motivational processes using self-determination theory. *Heliyon, 5*(7), Article e01983. https://doi.org/10.1016/j.heliyon.2019.e01983

Weiner, J., Francois, C., Stone-Johnson, C., & Childs, J. (2021). Keep safe, keep learning: Principals' role in creating psychological safety and organizational learning during the COVID-19 pandemic. *Frontiers in Education, 5*, Article 618483. https://doi.org/10.3389/feduc.2020.618483

Wong, Z. Y., & Liem, G. A. D. (2022). Student engagement: Current state of the construct, conceptual refinement, and future research directions. *Educational Psychology Review, 34*(1), 107–138. https://doi.org/10.1007/s10648-021-09628-3

Yang, D., Chen, P., Wang, H., Wang, K., & Huang, R. (2022). Teachers' autonomy support and student engagement: A systematic literature review of longitudinal studies. *Frontiers in Psychology, 13*, Article 925955. https://doi.org/10.3389/fpsyg.2022.925955

Zhang, H., & Tian, M. (2025). Unpacking the multi-dimensional nature of teacher competencies: A systematic review. *Scandinavian Journal of Educational Research, 69*(5), 1004–1025. https://doi.org/10.1080/00313831.2024.2369867