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Research Article

Role of Transformative Pedagogy in Enhancing Learning Outcomes at Tertiary Level of Education

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ABSTRACT

Transformative pedagogy has become a popular strategy in higher education to promote deep learning and student participation. The existing literature points out that so-called student-centred and active learning methods are leading to an upturn in the students' critical thinking, engagement and learning performance. Yet, there is a dearth of empirical descriptions of its overall effects on learning in the tertiary context. Therefore, the objective of our work was to investigate the significance and transformative pedagogy for improving students' learning in terms of results. A quantitative research methodology was adopted, with research instruments in the form of standardized Likert-scale questionnaires through which data was obtained from 200 higher-education students. Descriptive statistics such as mean and standard deviation were used to analyse the data. The results showed a general high level of accordance ($M = 4.12$) concerning the benefits of transformative pedagogy, which affected most on learning satisfaction ($M = 4.22$) and critical thinking ability ($M = 4.20$). The findings suggest that transformative teaching techniques can effectively facilitate students' learning engagement and their learning outcomes. The discussion emphasizes the alignment towards findings from previous research that focuses on the discussion of active and reflective teaching strategies in the domain of higher education. This study suggests that transformative pedagogy is a powerful teaching strategy for improving student learning, student engagement and higher order thinking at the university level and in so doing supports the enhancement of quality in higher education.

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KEYWORDS: Active Learning, Critical Thinking, Learning Outcomes, Student Engagement, Student Satisfaction, Transformative Teaching

1. INTRODUCTION

Contemporary developments in the reform of university provision are increasingly claiming to be based around the needs of (rather than the interests of) students and the orientation of higher education towards engaging students with the transformative pedagogies that foster improved learning experiences has been growing. Transformative pedagogy is concerned with critical reflection, engagement and collaborative learning, all of which facilitate the development of higher order thinking for students. Active learning strategies have also been found to positively influence student performance and engagement (Freeman et al., 2014) and teaching approaches that integrate student activity into the learning process have been encouraged to enhance students' understanding of concepts as well as retention of knowledge (Prince, 2004). Furthermore, transformational teaching has also been found to promote motivation, critical thinking and learning satisfaction based on reflective as well as experiential methodologies (Slavich & Zimbardo, 2012). New scholarship in education reinforces the necessity of diversified and pedagogically/contextually attuned approaches. Mandal et al. (2026a) pointed to transformative pedagogy as a contributor to reflective teaching in pre-service teachers, thus exemplifying its implications for professional learning through reflective engagement. Also, Mandal et al. (2026b) articulated aesthetic pedagogy in STEAM education as an approach to nurturing creativity, empathy and sustainability, connecting student-centred pedagogy to non-traditional cognitive results. Mandal et al. (2026c) also revealed the significance of Indian Knowledge Systems and yoga-based pedagogy in the context of the 21st century education to the extent, that it indicates the need for culturally grounded along with holistic learning methodologies. The incorporation of new pedagogical stances also aligns with Jana and Adhikary (2025) who underlined the convergence of the pedagogy of art with teacher education in consonance with the vision of NEP 2020. Similar, Ghosh and Adhikary (2025) underlined adaptive pedagogy as an intervention to redress the misconceptions of students and reiterated the necessity of flexible and learner-centric teaching methodologies. The study is anchored in the constructivist theory of learning, which states that learners create knowledge through interaction with the environment. Despite the considerable attention for active methodologies and population-based pedagogies, the overarching effects of transformative pedagogy on various aspects of tertiary learners' learning will not be well examined (Wang et al., 2011). Therefore, the present study intends to address the gap and examines the effect of transformational teaching methodologies on the learning outcome of students.

1.1 Statement of the Problem

This research, entitled "The Role of Transformative Pedagogy in Improving Learning Outcome at Tertiary Level of Education," is a response to the demand in higher education for student-centred and active teaching methods. While transformative pedagogy encourages active involvement, critical enquiry, co-operation and the autonomy of the learner,

its effectiveness for improving various learning outcomes at the tertiary level has not been adequately investigated. Accordingly, the research aims to investigate the effect of transformative pedagogy on students' academic achievement, critical thinking, interest, problem solving, communication and learning satisfaction.

1.2 Operational Definitions of the term Used

1.2.1 Transformative Pedagogy: An approach to teaching focused on the students that involves participatory learning, critical thinking and collaborative interaction leading to richer outcomes.

1.2.2 Learning Outcomes: Observable or quantifiable changes in students' knowledge, skills, attitudes and academic performance.

1.2.3 Tertiary Education: Education at a college or university level following secondary education.

1.2.4 Active Participation: The extent to which students are involved in learning activities, including discussions, problem-solving and group work.

1.2.5 Critical Thinking: The ability to think clearly and rationally, understanding the logical connection between ideas.

1.3 Significance of the Study

This research is valuable as it gives factual information on how well transformative learning theory works to enhance learning in a university setting. It adds to the existing literature by demonstrating the significance of student-centered teaching methods in the context of higher education. The results can help teachers, educational planners and decision makers to create new strategies of teaching that encourage critical thinking, involvement and academic accomplishment. It also facilitates the adoption of contemporary educational strategies to improve higher education.

1.4 OBJECTIVES OF THE STUDY

- I. To explore the place of transformative teaching in higher education.
- II. The effect of transformative pedagogy on students' learning outcomes was evaluated.
- III. The objective was to assess the impact of transformative teaching on critical thinking skills.
- IV. To investigate the effect of transformative pedagogy on student engagement and satisfaction.

1.5 HYPOTHESES OF THE STUDY

H₀ (Null Hypothesis):

There is no significant impact of transformative pedagogy on learning outcomes at the tertiary level of education.

H₁ (Alternative Hypothesis):

There is a significant positive impact of transformative pedagogy on learning outcomes at the tertiary level of education.

2. MATERIAL AND METHOD

2.1 Research Design: This study was quantitative in nature and thus assessed the effects of transformative pedagogy on learning outcomes.

2.2 Population and Sample: The research was aimed at the students at the tertiary level, a sample of 200 was taken by using suitable sampling techniques.

2.3 Data Collection Tools: To achieve reliability and accuracy, data was collected using standardized and validated tools. Transformative pedagogy was examined by an adapted version of the Transformational Teaching Questionnaire (TTC) which measures active engagement, critical reflection and student-centered teaching in transformative pedagogy (Slavich & Zimbardo, 2012).

The learning outcomes were measured by a validated SLOS scale including academic performance, critical thinking and learning satisfaction. Responses to all questions were recorded on 5-points Likert scale from “Strongly Disagree” to “Strongly Agree.”

The study instruments are valid and reliable and Cronbach's alpha coefficient was used to assess internal consistency.

2.4 Validity and Reliability: There was content validity in

the standardized questionnaire. The Cronbach α coefficient was used to assess the reliability and an acceptable level of internal consistency was found.

2.5 Procedure of Data Collection: Subsequent to consent being given, the questionnaires were administered to the students directly to gather the data.

2.6 Statistical analysis: The analysis was conducted based on descriptive statistical methods including mean and standard deviation to describe and interpret the data.

2.7 Ethical considerations: Ethical considerations were taken into account such as informed consent, anonymity and voluntary participation was requested of respondents."

3. RESULTS AND ANALYSIS

The role of transformative pedagogy in promoting improved learning at the higher education level is what this research focused on. The data were collected from N = 200 students and analysed by means of descriptive statistics (Mean and Standard Deviation).

Table 1: Students' Perception of Transformative Pedagogy (Where N=200)

Statement	Mean	SD ($\pm$)	Interpretation
Transformative teaching enhances critical thinking	4.12	0.78	High
It promotes active participation in classroom learning	4.25	0.72	Very High
It improves understanding of complex concepts	4.08	0.81	High
It encourages collaborative learning	4.18	0.75	High
It fosters independent learning skills	4.10	0.79	High
Overall Mean	4.15	0.77	High

Source: Data compiled from primary survey conducted by the researcher (2025)

Finding: The students agreed with transformative pedagogy is a good teaching method with an overall mean score of (M = 4.15). The mean score for active engagement (M = 4.25) was the highest, which means that transformative teaching has strong attraction for students (shown in Table-1& Figure-1).

Analysis: The result that transformative pedagogy promotes student active participation and engagement (M = 4.25) has also been evidenced by other studies in Higher Education. Research on active learning shows that such student-centred and participatory approach to teaching enhances engagement and participation and allows students to be more actively involved in learning-related activities in the classroom. For example, a meta-analysis by Freeman et al. (2014) demonstrated that active learning methods lead to higher student engagement and performance versus traditional lecture-style teaching methods. In a similar way, Prince (2004) concluded that active learning facilitates deeper

involvement while engaging students in discussion, problem-solving and team work.

Moreover, transformative pedagogies have an emphasis on critical reflection and learning through experience with the potential to increase motivation and engagement of students. Transformational teaching in a ground-breaking paper published in Teaching of Psychology in 2012 Slavich and Zimbardo (Slavich & Zimbardo, 2012) called transformational teaching a “theory of teaching and learning” and highlighted how it creates active learning environments in which students are encouraged to participate, develop critical-thinking skills and assume ownership of their learning. In a related fashion, Colomer et al. (2020) found that in higher education reflective and active methods significantly improve student involvement and learning experiences. Hence, the finding of this study's strong mean for active participation augments the literature and reaffirms that transformative pedagogy is imperative to engaging students at the tertiary level.

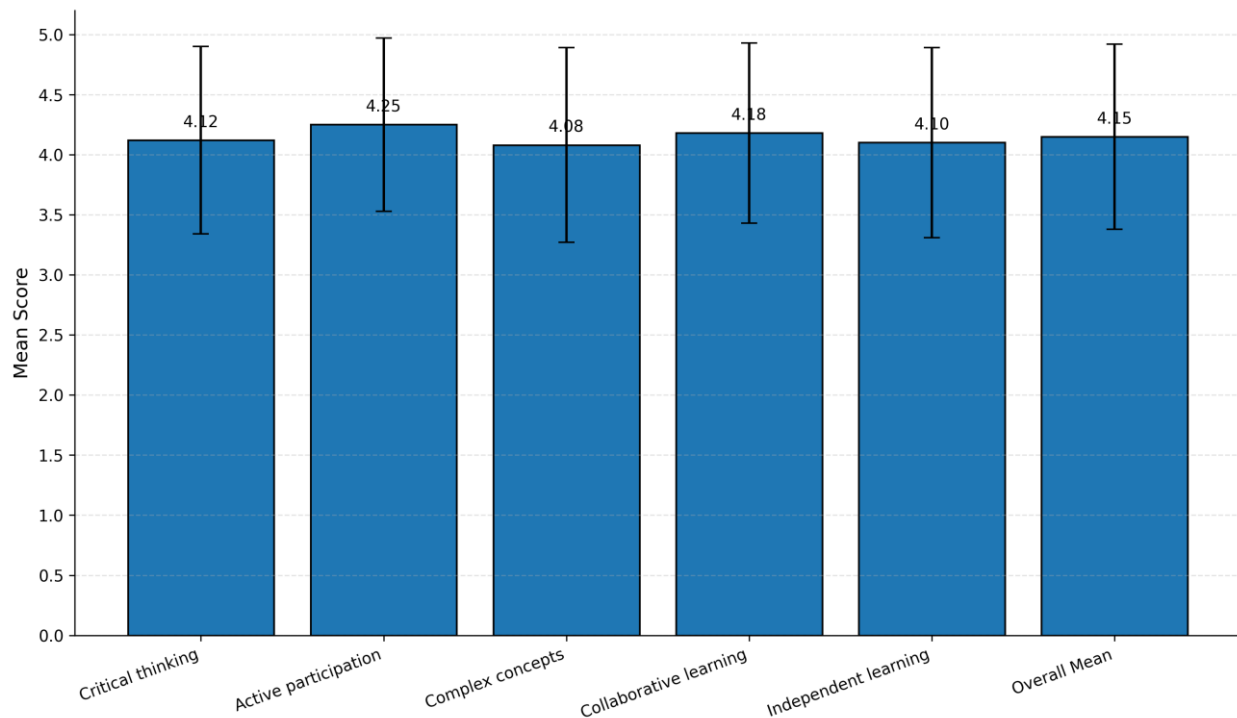


Figure-1. Graphical Representation of Students' Perception of Transformative Pedagogy (N = 200)

Table-2 Impact of Transformative Pedagogy on Learning Outcomes (Where N=200)

Learning Outcome	Mean	SD ($\pm$)	Level
Academic performance improvement	3.98	0.84	High
Critical thinking ability	4.20	0.76	Very High
Problem-solving skills	4.15	0.73	High
Communication skills	4.05	0.80	High
Overall learning satisfaction	4.22	0.70	Very High
Overall Mean	4.12	0.77	High

Source: Data compiled from a primary survey conducted by the researcher (2025)

Finding: Results show (Table-2 & Figure-2) that transformative pedagogy is positively and significantly associated with learning outcomes of ($M = 4.12$). The maximum effect was on overall learning satisfaction ($M = 4.22$), and this was followed by critical thinking ability ($M = 4.20$).

Analysis: The results suggest that transformative pedagogy contributes to positive learning outcomes ($M = 4.12$) with the greatest effect on learning satisfaction ($M = 4.22$) and critical thinking ($M = 4.20$), which are located on a solid foundation of prior research. Research indicates that transformative and student-centered pedagogy positively impacts learners' academic journeys and results in higher levels of satisfaction by fostering active and meaningful learning contexts. For example, Slavich and Zimbardo (2012) they noted that transformational teaching leads to deeper learning, more motivation and higher student satisfaction by actively

involving students and through reflective practice. Likewise, Freeman et al. (2014) and Kozanitis and Nenciovici (2023) concluded that there is a significant positive impact of active and participatory teaching on student learning, student achievement, and satisfaction in the learning process. With respect to critical thinking, Prince (2004) argued that the components of the strategies of active learning promote higher-order thinking, such as analysing, evaluating and problem solving, that are critical thinking elements. Besides it, Colomer et al. (2020) and: Kolajo (2025) confirmed that reflective and transformative based pedagogies in HE are proven to foster a substantial development in students' critical thinking skills and overall learning. They allow learners to challenge beliefs, participate in dialogue and situate learning in everyday life.

Therefore, the present results are in line with previous studies and indicate that transformative pedagogy is influential in enhancing students' learning satisfaction as well as critical thinking ability in higher education.

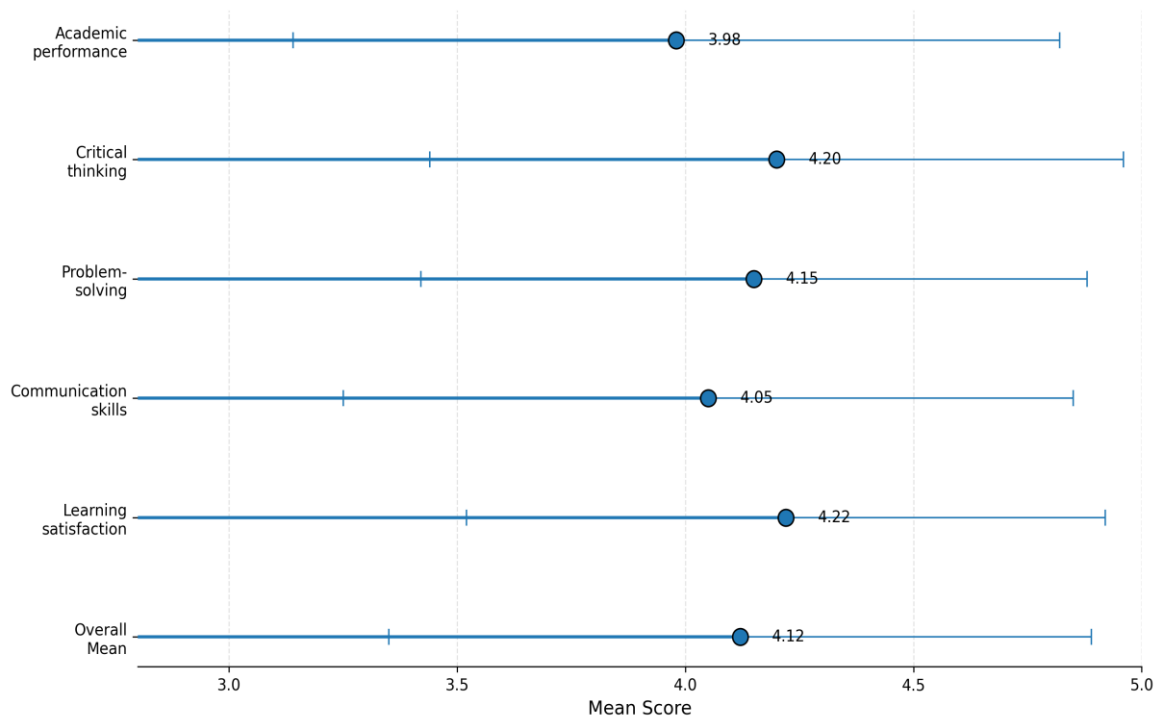


Figure-2: Lollipop Diagram Showing the Impact of Transformative Pedagogy on Learning Outcomes (N = 200)

Table-3: Level of Learning Outcomes among Students (Where N=200)

Level	Frequency	Percentage (%)
Very High	68	34%
High	92	46%
Moderate	28	14%
Low	12	6%
Total	200	100%

Source: Data compiled from primary survey conducted by the researcher (2025).

Finding: These results suggest (Table-3& Figure-3) that 80% of the students are at high and very high levels of learning outcomes; thus, transformative pedagogy would have been effective in promoting the student learning at the tertiary level.

Analysis: The result that most of the students are at high and very high levels of learning outcomes (80%) indicates that transformative pedagogy can enhance student learning at the tertiary level, which is consistent with the findings of other studies. Research has repeatedly demonstrated that teaching centered on students and that is transformative in nature results in enhanced student outcomes and deeper learning. For example, active learning has been shown to significantly increase student performance and decrease failure rates in comparison to traditional teaching (Freeman et al., 2014; Kozanitis and Nenciovici, 2023). Likewise, Prince's (2004)

study, active and participatory pedagogies promote higher order thinking and can lead to better learning outcomes. As one of the core principles of transformative teaching, Slavich and Zimbardo (2012) stressed that this type of thought promotes students' intellectual growth, engagement and success as students by facilitating critical reflection and meaningful learning.

Reflective and Active approaches to teaching and learning have been found to positively impact learning outcomes in higher education due to the facilitation of deeper cognitive processes and increased autonomy of learning (Colomer et al., 2020). "Therefore, that the present study had a high percentage of students that attained an advanced level of learning outcomes confirms previous research that transformative pedagogy is a powerful means of enhancing student learning at the tertiary level.

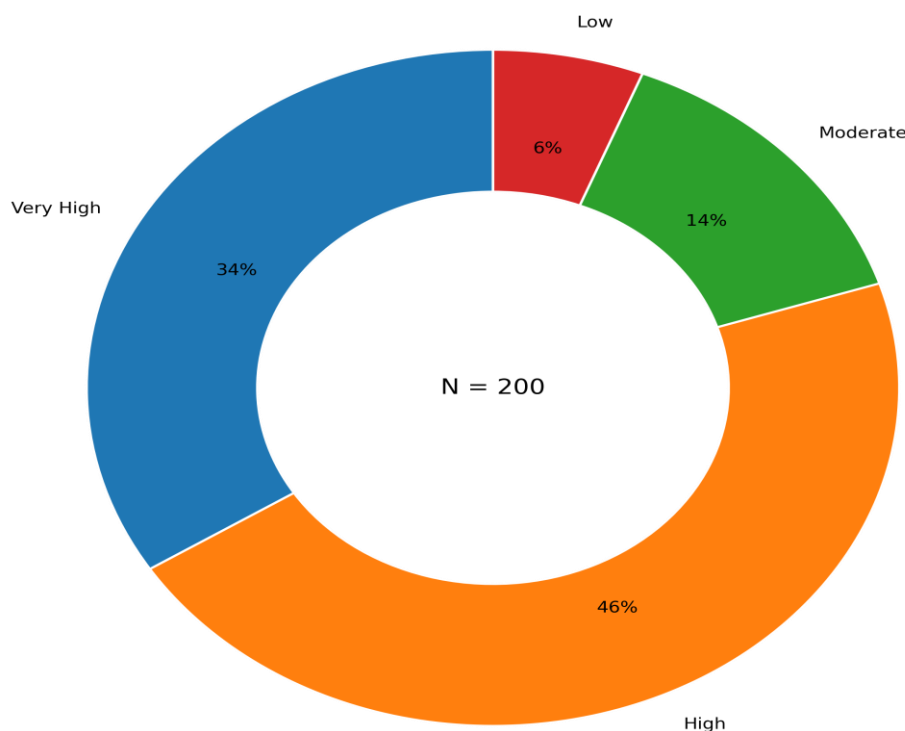


Figure-3. Donut Chart Showing the Level of Learning Outcomes among Students (N = 200).

4. DISCUSSION

The current study investigated the impact of transformative pedagogy on learning efficacy of university students. Results from 200 participants showed an overall favourable attitude towards transformative pedagogy, with a mean of 4.15 (SD = 0.77). Active engagement was rated the highest (M = 4.25, SD = 0.72), followed by collaborative learning (M = 4.18, SD = 0.75), critical thinking (M = 4.12, SD = 0.78), independent learning (M = 4.10, SD = 0.79) and comprehension of complicated knowledge (M = 4.08, SD = 0.81). The composite learning outcome score was equally high (M = 4.12, SD = 0.77) with learning satisfaction (M = 4.22, SD = 0.70) and critical thinking ability (M = 4.20, SD = 0.76) as the most robust dimension of outcome. In addition, 80% of students were rated at the high or very high level of learning outcomes, which could imply about the positive influence of transformative pedagogy in the higher education.

Objective-I: To explore the place of transformative teaching in higher education

The results undoubtedly show that transformative education has a significant place in modern higher education as students reported a high overall perception (M = 4.15, SD = 0.77). The highest mean score was obtained for active participation (M = 4.25), showing that students appreciated the teaching methods that asked them to think actively and not be passive information receivers. Collaborative learning (M = 4.18) and independent learning (M = 4.10) were similarly well regarded, indicating that transformative pedagogy is understood as

enhancing learner autonomy, interaction and community of knowing. This result aligns with the philosophical underpinning of transformative teaching, which promotes engagement, critical inquiry, dialogue, lived-experience and learner control. Slavich and Zimbardo (2012) described transformational teaching as a methodology that fosters active learning environments where students engage substantively and cultivate critical-thinking skills. Likewise, Prince (2004) revealed that active learning encourages student engagement with class sessions via discussion, problem-solving and cooperation. A meta-analysis by Freeman et al. (2014) has illustrated that strategies for active learning promote better academic achievement than didactic learning. The role of critical and participatory methodologies in transforming learning experiences in the context of higher education was also highlighted by Colomer et al. (2020). Hence, the current result implies that transformative pedagogy is not simply a different teaching strategy but a student-focused teaching philosophy suitable for the contemporary tertiary sector. Its focus on engagement, collaboration, reflection and learning independently supports the emerging needs of higher education, including the realm of higher-order thinking and learner autonomy.

Objective-II: To evaluate the effect of transformative pedagogy on students' learning outcomes

The findings constitute a robust descriptive testimony for this aim. The general mean for learning outcomes was interpreted as high = 4.12 (SD = 0.77). Among all the dimensions, overall

learning satisfaction had the highest mean value ($M = 4.22$, $SD = 0.70$), followed by critical thinking ability ($M = 4.20$, $SD = 0.76$), problem-solving skills ($M = 4.15$, $SD = 0.73$), communication skills ($M = 4.05$, $SD = 0.80$) and academic performance enhancement ($M = 3.98$, $SD = 0.84$). The enrollment of students, in turn, was found also to be adequate. Sixty-eight students (34%) out of 200 registered high-higherlevel learning outcomes and 92 (46%) middle-high learning outcomes. Thus, 160 students (80%) were classified within the high-to-very-high categories, whilst a mere 12 students (6%) were identified as having low learning outcomes. Such a trend suggests that beneficial learning effects were not limited to one particular type, rather they were observed in field, mind, mouth and heart components of learning also. The result corroborates Freeman et al. (2014), which suggested that active learning increases student performance and decreases failure when compared with traditional teaching. Prince (2004) also suggested that active and participatory methodologies have the potential to enhance students' acquisition, understanding and retention of knowledge. More specifically, Kozanitis and Nenciovici (2023) indicated through a meta-analysis that active learning has positive impact on learning achievement in tertiary education. Reflective and active approaches also are associated with deeper processing and higher learner autonomy (Colomer, et al., 2020). Therefore, the results support the claim that transformative pedagogy has the potential to produce learning spaces where students engage more directly in meaning making, knowledge application and learning reflection. The result, however, was derived by using descriptive statistics, instead of statistical or experimental analyses, thus it should be viewed as an indication for a positive perceived association/effect, rather than as conclusive evidence for causality. The original study itself acknowledges the non-generation of further inferential analyses as a limitation.

Objective-III: To assess the impact of transformative teaching on critical thinking skills

The findings are especially supportive of this objective that Transformative teaching statement was rated by students $M = 4.12$ ($SD = 0.78$), value is interpreted as high. More significantly, the highest learning outcome dimension, critical thinking ability as a learning outcome attained a mean of 4.20 ($SD = 0.76$), which was considered as very high and ranked 2nd highest among overall learning satisfaction. This finding is well substantiated in the literature. Transformative pedagogy invites students to interrogate taken-for-granted beliefs, reflect on experiences, participate in dialogue and create new understandings. Such processes naturally make possible

increasingly complex thinking skills. Active-learning techniques foster higher-level thinking in that they require students to analyze, evaluate and solve problems, processes integral to critical thinking (Prince, 2004). And in line with the above, Slavich and Zimbardo (2012) identified critical reflection and meaningful engagement as the heart of transformational teaching. Colomer et al. (2020) demonstrated that reflective and active teaching approaches have the potential to enhance critical thinking and provoke transformative learning experiences for university students. Reflective teaching and pedagogical adjustment as factors for pedagogical enhancement and profound learning was underscored by Kolajo (2025) more recently. The current result implies that the power of transformative pedagogy is not found in making the classroom fun or more participatory, but rather in the production of conditions for higher-level intellectual work. Students are prompted to question, interpret, problem-solve and engage in reflective judgment rather than simply regurgitate. Hence, the good result about critical thinking gives substantive support to considering transformative pedagogy as a suitable methodology for fostering the type of thinking needed in today's higher education.

Objective-IV: To investigate the effect of transformative pedagogy on student engagement and satisfaction

The results are in keeping with this objective. Participation was the indicator with the highest mean value on all perception items ($M = 4.25$, $SD = 0.72$), which corresponded to Very High. This indicates that students in particular appreciated the potential of transformative pedagogy to immerse them in learning in the classroom. Furthermore, satisfaction with learning achieved the highest mean value among all indicators of learning outcomes ($M = 4.22$, $SD = 0.70$) and was rated as Very High. This is in agreement with Freeman et al. (2014) provides evidence that active learning has benefits over the more traditional, lecture-based methods. Prince (2004) also recognized participation in discussion, teamwork and problem-solving as key features of good active learning. Slavich and Zimbardo (2012) asserted that transformational teaching enhances motivation, active engagement, ownership of learning and enriched learning experiences. Likewise, Colomer et al (2020) demonstrate how active and reflective strategies enhance student participation and learning in university. Kozanitis and Nenciovici (2023) also reported positive outcomes of active learning on college students' success.

High active participation and high learning satisfaction combined are especially meaningful. It indicates that the students will be more satisfied, if they get to participate, to collaborate, to reflect and to have more autonomy. Therefore,

engagement seems to serve as a key instructional mechanism through which transformative teaching may enhance positive learning outcomes.

4.1 Testing of Hypothesis

The hypothesis was tested by using descriptive statistics (Mean and Standard Deviation). The findings showed a high level of consensus ($M = 4.12$) for transformative pedagogy and learning outcomes, which demonstrated positive results among the respondents. Since the mean scores of the three main factors (i.e., active participation, learning satisfaction and critical thinking) were ranged from high to very high, the null hypothesis (H_0) was rejected and the alternative hypothesis (H_1) was accepted. This demonstrates that transformative pedagogy greatly improves learning outcomes for higher education students.

4.2 Educational Implication of the Study

The study's results have implications for the need of embedding transformative pedagogies in higher education to support student engagement, critical thinking and learning quality. To provide meaningful learning experiences, educators need to embrace student-centered pedagogies including active learning, group work, reflection and instruction supported by technology. Curriculum designers and policymakers may find these valuable insights useful in forming new teaching models that foster higher-level thinking and learner independence. Furthermore, preservice teacher education needs to be focused on the fostering of transformative teaching skills that higher education trainers should be able to effectively applying in their training.

4.3 Limitations and Future Directions

The study is limited by the relatively small sample size ($N = 200$) and a context-specific nature, which might limit the generalizability of the results. Self-reported data may also lead to response bias. Furthermore, the analysis was mainly descriptive without employing further inferential analyses. Future studies are necessary with larger, more diverse samples and multiple institutions to enhance generalizability. Moreover, they may make use of inferential statistics and/or longitudinal research designs to investigate causal relationships and enduring effects of transformative pedagogy. Integrating qualitative perspectives might further enhance understandings of students' experiences and teaching practices.

5. CONCLUSION

The study concludes that the transformative approach to teaching is influential in improving learning at the university

level. Results show that student-centered and active methodologies lead to greater student involvement, development of critical thinking and higher levels of satisfaction with learning. The students' high positive responses reveal that transformative teaching is effective in establishing meaningful and engaging learning experiences. Hence, transformative pedagogy must be embraced to enhance the quality of higher education and the holistic development of students.

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