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# IMPACT OF TEACHERS' INSTRUCTIONAL PRACTICES ON STUDENTS' ENGAGEMENT AND ACADEMIC SELF-EFFICACY: A COMPARATIVE ANALYSIS OF ONLINE VS ON-CAMPUS LEARNING PROCESS

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**ABSTRACT**
*The purpose of this study was to investigate the impact of teachers' instructional practices on students' engagement and academic self-efficacy in online versus on-campus classes at the university level. This study used a quantitative survey design. The target population for this study was students of higher education enrolled in universities in the year 2020-2022, meaning that these students have experienced both online and on-campus learning. Convenience sampling was adopted in this study. 285 higher education students took part in this study. The research instruments in this study included three scales: a self-developed questionnaire titled the Teachers' Instructional Practices Scale, Student Engagement Scale, and the National Survey of Student Engagement and Academic Self-efficacy Scale. Validity was established through expert opinion, while pilot testing was conducted to establish the reliability of the instruments, which was found to be (.92). The results indicate a significant relationship between teachers' instructional practices and student engagement and academic self-efficacy. The study also concluded that there was a significant difference between teachers' instructional practices during online and on-campus learning. The study recommends that future research be conducted on a large scale to highlight the importance of blended learning in Pakistan.*
**Keywords:** Instructional Practices, Student Engagement, Academic Self-efficacy, Higher Education, Online Education, On-campus Education.

## INTRODUCTION

Teachers rely on student engagement and academic efficacy as visible indicators of their students' underlying motivation throughout their academic careers (Soffer & Cohen, 2020; Roorda et al., 2017; Rajabalee et al., 2019). However, the entire educational system was changed to online learning during Covid-19 (Ma et al., 2021). This rapid transformation caught teachers and students in less technologically advanced countries, such as Pakistan, off the guards. This difficult time, however, has passed now and left many ways forward. Therefore, this research compares teachers' instructional practices in online classes with those in on-campus classes and their influence on students' engagement and academic self-efficacy.

There is ample research on teachers' instructional practices (TIP), Student Engagement (SE), and Academic Self-Efficacy (ASE), along with their relationship with each other and with students' academic achievement (AlJaser, 2017); however, there is a research gap showing a comparison of modes of learning, online and on-campus needs to be made, especially in the Post Covid era in Pakistan, as the two modes are currently being conducted worldwide. As it has been made clear through the literature, that TIP has an ample impact on SE and ASE and the impact of a pandemic on

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higher education, it is time to draw a comparison of TIP during online and on-campus learning processes to highlight the importance of blended learning so that it can become part of Pakistan's educational policy and the higher education system can be as per global trends and standards.

## REVIEW OF LITERATURE

The literature review section of this research paper provides a comprehensive examination of Teachers' Instructional Practices (TIP), Student Engagement (SE), and Academic Self-Efficacy (ASE), as well as their complex interrelationships and influence on students' academic achievement. TIP comprises different tactics, techniques, and methods that teachers apply to enhance their effective learning experiences. SE refers to students' level of interest, engagement, and active participation in the learning process. A student's ASE represents their opinions and confidence in their academic ability. By examining the interplay among these three components, this literature review seeks to shed light on their mutual influences and the critical role they play in determining students' academic outcomes. By having a complete grasp of these relationships, teachers can acquire useful insights into improving teaching practices, encouraging student engagement, and cultivating academic self-efficacy, which can result in enhanced academic achievement.

According to Francisco and Celon (2020), teachers' instructional practices (TIP) are the most critical qualities that any teacher must possess because they enable them to maintain the students' focus, attention, and engagement during the lecture. For example, engaged students are more likely to graduate from school than are those who drop out (Raes et al., 2020). The importance of student engagement is that it predicts crucial outcomes (such as learning and growth) and reveals an individual's underlying motives (Shirrell et al., 2019). Kolo et al. (2017) defined students' beliefs and attitudes about their academic accomplishment potential, as well as their confidence in their abilities to conduct academic tasks and absorb and understand instructional materials, such as academic self-efficacy.

TIP is often used in academic settings to describe how information and instructions are conveyed by instructors and received or experienced by students to achieve educational objectives (Malkoç & Mutlu, 2018). Several studies have shown that TIP is a major influence on student engagement, learning, academic self-efficacy, and academic success. These links have been investigated in a range of learning scenarios, including early childhood education (Sachitra & Bandara, 2017), elementary to secondary education (Thibaut et al., 2018), and higher education (Yokoyama, 2019).

Effective teaching practices are crucial to increasing student engagement (SE) in the learning process. When instructors adopt interactive and relevant instructional practices that encourage active student engagement, they are more likely to be fully engaged in their learning experiences. Cooperative learning techniques, in which students collaborate in small groups to accomplish shared learning objectives, are successful instructional strategies. Research shows that cooperative learning promotes not only student involvement, but also academic achievement and social skills (Roseth, Johnson & Johnson, 2018). Incorporating technological tools, such as virtual reality simulations and online discussion platforms, may give students immersive and engaging learning experiences, resulting in heightened engagement (Xie, Durrant, & Du, 2021). Real-world problem-solving assignments and realistic assessments, which foster active learning, critical thinking, and relevance to students' lives, are the second most successful teaching strategies (Anderman & Kaplan, 2018). By applying these and other successful teaching strategies, educators can create dynamic learning environments that increase student engagement, promote deeper comprehension, and improve overall learning outcomes.

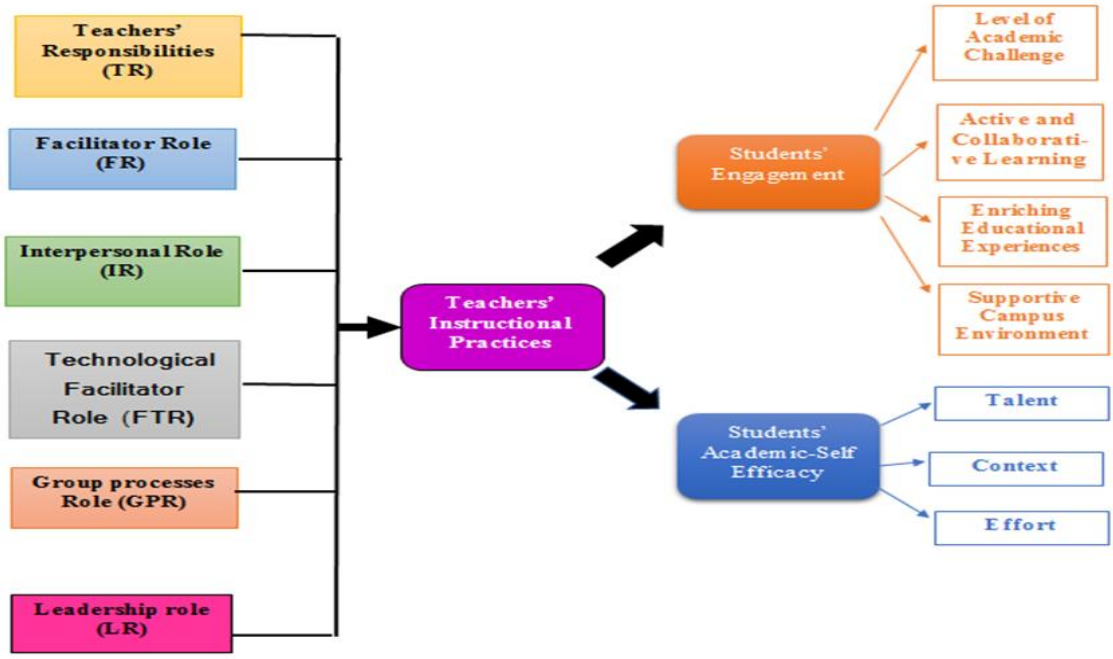
Knowledge develops from how people interact with one another. Social Constructivism theory focuses on shared learning experiences. Effective instructional practices can help create shared experiences and develop knowledge. According to Ng' and u et al. (2013), the network of stimuli and responses causes a change in behaviour. In this study's context, effective instructional practices (stimuli) can lead to high student engagement (response). An individual's belief in the self to demonstrate specific behaviours to achieve desired results is a notion of self-efficacy theory (Schunk & DiBenedetto, 2016).

Effective instructional techniques may instil students' academic self-efficacy. Academic self-efficacy refers to the students' confidence in their academic success. Students are more likely to acquire a feeling of competence and confidence in their academic skills if teachers adopt instructional

approaches that provide clear instructions, relevant feedback, and opportunities for achievement. Personal experiences, observational learning, and social persuasion influence self-efficacy beliefs (Bandura, 1986). Therefore, when students encounter instructional approaches that cater to their unique requirements, stimulate engagement, and encourage a development attitude, they are more likely to regard themselves as competent learners. This, in turn, increases their academic self-efficacy and encourages them to pursue academic goals (Pajares, 2002). By fostering academic self-efficacy via effective teaching strategies, teachers may enable students to become more resilient and engaged participants in their own learning paths (Zimmerman, 2000).

This literature review offers an examination of the interrelationships between Teachers' Instructional Practices (TIP), Student Engagement (SE), and Academic Self-Efficacy (ASE) and their impact on students' academic progress. By examining the complex interrelationships between these factors, significant insights have been acquired into their reciprocal impacts and the critical role they play in determining students' academic achievements. By recognising these links, instructors may improve their teaching approaches, encourage student engagement, and build teachers' self-efficacy, eventually resulting in higher academic accomplishment.

The subsequent part of this section concentrates on the study objectives, seeking to explore these components and their influence on the educational journey of students in more depth. The




objectives of the study were to:

(1) Identify the students' perceived level instructional practices of teachers during online and on-campus learning.
(2) Analyse the impact of teachers' instructional practices on students' engagement during online and on-campus learning.
(3) Analyse the impact of teachers' instructional practices on students' academic self-efficacy during online and on-campus learning.
(4) Examine the relationship between teachers' instructional practices during online and on-campus learning, students' engagement, and academic self-efficacy.
(5) Compare the instructional practices of teachers during online and on-campus learning.

## METHODS

Under the positivist research paradigm, a quantitative research method and survey design were used in this study. The positivist paradigm emphasises objectivity and the utilisation of empirical facts to identify generalisable patterns and causal links. This study used a quantitative method to gather numerical data from a large sample size and statistically analyse it. The survey design allowed for quick collection of data from a wide variety of individuals, allowing the researcher to explore the interrelationships between factors. This method is consistent with the positivist paradigm's goal of

investigating observable phenomena and producing reliable and accurate results. In this study, the use of quantitative methodologies and a positivist research paradigm adds to the thorough analysis of the research questions, thus boosting the credibility and generalisability of the findings.

There are 35 Universities in Lahore, Punjab, Pakistan, which is the site of this study. Of these, fourteen were Public Sector Universities, and twenty-one were Private Sector Universities. The target population of the study was students of higher education who experienced both online and on-campus learning at 35 universities in Lahore, Punjab, Pakistan. Due to time constraints, two universities were selected, one public and one private—using a convenient sampling technique. The study extracted a sample of 285 respondents from the target population, of which 143 studied in public universities and 142 in private universities, to participate in this research through convenience sampling after following ethical protocols.

The research instrument used in this study comprised three scales.

(1) Teachers' Instructional Practices scale (TIPS) developed by the first researcher after an extensive literature review,
(2) The Student Engagement Scale (SES) was adapted from the original version of Kuh's National Survey of Student Engagement (2009).
(3) The academic Self-efficacy scale (ASES) is adapted from the original version of Jinks and Morgan (1999).

The final instrument contains a total of 58 statements, of which 34 statements are relevant to TIPS (17 for online and 17 for on-campus learning), 12 statements are for students' engagement, and 12 for students' academic self-efficacy. 5-point scale of measurement (5 = always, 4 = often, 3= sometimes, 2 = rarely, and 1 = never) was chosen for the instrument.

The Instrument's reliability was attained using pilot testing of one hundred participants and the statistical procedures of the IBM SPSS 25. The Cronbach's α value of the instrument was .928, whereas that of the TIPS scale was .90, SES .82, and ASES .78, indicating excellent reliability (≥.80-.92) (Apuke, 2017). As previously stated, the TIP instrument was developed by the researcher after an extensive literature review. Therefore, content validity was ensured after obtaining expert opinions from five experts in the field of instructional practices. The item-wise content validity index revealed that the TIPS is a highly valid instrument for conducting this study.

## RESULTS

This section provides an overview of the findings from the study, which looked at teachers' instructional approaches and how they affected students' experiences in on-campus and online classroom environments. The main goal of this study was to investigate the relationships among teachers' instructional strategies, students' engagement, and academic self-efficacy. The study also looked at the instructional methods used by instructors both on-campus and online. By examining these objectives, this study offers important insights into the effectiveness of instructional approaches in various learning environments and offers recommendations for improving teaching and learning practices in online and on-campus settings.

This study's first objective was to determine how much teachers thought they were doing, both in-person and online. We incorporated questions about teachers' instructional practices from a variety of categories into the instrument, such as teachers' accountability, teachers' interpersonal role, teachers' technological facilitator role, teachers' facilitator role, teachers' role in group process, and teachers' role in leadership. The findings of teachers' responses to instructional practice questions during on-campus and online learning are shown in Tables 1 and 2.

***Table 1: Descriptive Statistics for Teachers' Instructional Practices during Online Learning***

| Factors | Mean | Std. Deviation | N |
|---|---|---|---|
| Teachers' Responsibility | 11.65 | 2.60 | 285 |
| Teachers' Interpersonal Role | 10.96 | 2.01 | 285 |
| Teachers' Technological Facilitator Role | 10.12 | 2.66 | 285 |
| Teachers' Facilitator Role | 7.53 | 1.43 | 285 |
| Teachers' Group Processes Role | 10.93 | 2.75 | 285 |

| | | | |
|---|---|---|---|
| Teachers' Leadership Role | 11.69 | 2.49 | 285 |
| Teachers' Instructional Practices during Online Learning | 62.01 | 9.60 | 285 |

Measures of central tendency for students' perceptions of teachers' online teaching strategies included a mean of 124.89, and measures of variability included a standard deviation of 18.54.

***Table 2: Descriptive Statistics for Teachers' Instructional Practices during On-campus Learning***

| **Factors** | **Mean** | **Std. Deviation** | **N** |
|---|---|---|---|
| Teachers' Responsibility | 11.96 | 2.31 | 285 |
| Teachers' Interpersonal Role | 10.67 | 2.44 | 285 |
| Teachers' Technological Facilitator Role | 10.56 | 2.50 | 285 |
| Teachers' Facilitator Role | 7.11 | 1.79 | 285 |
| Teachers' Group Processes Role | 10.72 | 2.22 | 285 |
| Teachers' Leadership Role | 10.94 | 2.23 | 285 |
| Teachers' Instructional Practices during On-campus Learning | 62.98 | 9.91 | 285 |

Mean = 62.98 and standard deviation = 9.91 are measures of central tendency and variability, respectively, for the perceived level of students about instructors' instructional methods throughout campus learning.

The second objective of the research was to assess the influence of instructors' instructional strategies on student engagement during online and on-campus learning. Table 3 displays the findings of a multiple regression analysis undertaken to determine the influence of teachers' instructional practices during online learning (TIP online) and teachers' instructional practices on campus (TIP on-campus) on student engagement. The correlations between these factors are illuminated by the data reported in Table 3.

***Table 3: Multiple Regression Analysis Predicting Student Engagement***

| **Variable** | **B** | **SE B** | **β** | **P** | **t** |
|---|---|---|---|---|---|
| SE | 5.519 | 3.302 | | .096 | 1.672 |
| TIP during on-campus learning | .633 | .053 | .588 | .000 | 12.013 |
| TIP during online learning | .144 | .102 | .102 | .093 | 1.686 |

*Note.* $R^2 = .346$, $F(2, 272) = 69.300$, $p < .001$

The overall regression model was statistically significant, indicating that the combination of teachers' instructional practices during online learning (TIP online) and on-campus instructional practices (TIP on-campus) significantly predicted student engagement ($F(2, 272) = 69.300$, $p < .001$). The model accounted for 34.6% of the variance in student engagement, suggesting that these instructional practices played a significant role in shaping students' level of engagement.

When the individual contributions of the predictors were examined, the coefficient for on-campus TIP was found to be significant ($\beta = .588$, $p < .001$), indicating that increases in the total impact of on-campus instructional practices were associated with higher levels of student engagement. Similarly, the coefficient of TIP online, although not statistically significant ($\beta = .102$, $p = .093$), suggests a positive relationship between online instructional practices and student engagement.

The intercept in the multiple regression analysis represents the expected level of student engagement when both on-campus (TIP on-campus) and online (TIP online) teachers' instructional practices were zero. In this analysis, the intercept was found to be statistically non-significant ($\beta = 5.519$, $SE = 3.302$, $t = 1.672$, $p = .096$), indicating that the expected level of student engagement without any instructional practices is not significantly different from zero. Although the intercept did not reach statistical significance, it is important to interpret it in the context of the other variables

included in the model. The significant predictors in the model, such as TIP on-campus and TIP online, have stronger associations with student engagement. Therefore, it is the variations in these predictors rather than the intercept that primarily contribute to explaining the levels of student engagement observed in the study. The non-significant intercept suggests that instructional practices, whether on-campus or online, are necessary to facilitate student engagement. It emphasises the importance of effective teaching strategies and instructional design in creating an engaging learning environment that promotes active participation and motivation among students.

The third objective of the research was to determine the influence of teachers' instructional strategies on students' academic self-efficacy during online and on-campus learning. Students' academic self-efficacy was examined using multiple regression analysis to determine the influence of online and on-campus educational approaches. The data reported in Table 4 offer useful insight into the correlations between the variables.

***Table 4: Multiple Regression Analysis Predicting Academic Self-Efficacy***

| Variable | B | SE B | β | P | t |
|---|---|---|---|---|---|
| ASE | 24.727 | 2.312 | | .000 | 10.694 |
| TIP during online learning | .309 | .036 | .459 | .000 | 8.533 |
| TIP during on-campus learning | .121 | .094 | .098 | .198 | 1.290 |

*Note.* $R^2 = .211$, $F(2, 272) = 38.31$, $p < .001$.

The total regression model was statistically significant, demonstrating that the combination of teachers' instructional practices during online learning (TIP online) and on-campus (TIP on-campus) predicted students' academic self-efficacy (F (2, 272) = 38.31, p .001). The model explained 21.1% of the variation in academic self-efficacy, indicating that these instructional techniques are significant contributors to students' perceptions of their academic capabilities.

We analysed the individual contributions of the variables and found that the coefficient for TIP online was significant (β = .459, p .001), showing that increases in the cumulative effect of online instructional practices were related to greater levels of academic self-efficacy. This research suggests that the effective implementation of online instructional strategies has a positive effect on students' academic confidence.

In contrast, the coefficient for TIP on-campus was not statistically significant (β = .098, p = .198), suggesting that the impact of on-campus instructional practices on academic self-efficacy may be less pronounced in this analysis. Further investigation is recommended to understand the specific factors influencing the relationship between on-campus practices and academic self-efficacy.

The intercept represents the expected level of academic self-efficacy when both online and on-campus instructional practices are zero. In this analysis, the intercept was found to be statistically significant (β = 24.727, SE = 2.312, t = 10.694, p < .001), indicating that even in the absence of instructional practices, students still possess a certain level of self-efficacy.

The fourth objective of the study was to examine the relationship between teachers' instructional practices during online and on-campus learning, students' engagement, and academic self-efficacy.

***Table 5: Correlation Statistics of Online Learning and Students' Engagement***

| | **Teachers' Instructional Practices (Online)** | **Student Engagement** |
|---|---|---|
| TIP (Online) | - | .53** |
| SE | .53** | - |

The study included teachers' instructional practices during online and on-campus learning as an independent variable. The linear online and on-campus independent variables were significantly related to the dependent variable (students' engagement; SE) at P = <.01, as indicated in Table 5.

***Table 6: Correlation Statistics of On-campus Learning and Students' Engagement***

| | Teachers' Instructional Practices (On-campus) | Student Engagement |
|---|---|---|
| TIP (On-campus) | - | .58** |
| SE | .58** | - |

The study included teachers' instructional practices during online and on-campus learning as an independent variable. The linear online and on-campus independent variables were significantly related to the dependent variable (students' engagement; SE) at P = <.01, as indicated in Table 6.

***Table 7: Correlation of Statistics of Online Learning and Students' Academic Self-Efficacy***

| | **Teachers' Instructional Practices (Online)** | **Students' Academic Self Efficacy** |
|---|---|---|
| TIP (Online) | - | .45** |
| ASE | .45** | - |

Teachers' instructional practices during online and on-campus learning were included in the research as an independent variable. Table 7 demonstrates that the online and on-campus independent variable was associated with the dependent variable (students' academic self-efficacy; ASE) at p = .01.

***Table 8: Correlation Statistics of On-campus Learning and Students' Academic Self-Efficacy***

| | **Teachers' Instructional Practices (Online)** | **Students' Academic Self Efficacy** |
|---|---|---|
| TIP (Online) | - | .41** |
| ASE | .41** | - |

The instructional strategies of instructors during online and on-campus learning were included as an independent variable in the research. The linear online and on-campus independent variables were associated with the dependent variable (students' academic self-efficacy; ASE) at p =.01, as shown in Table 8.

Objective five was to compare the instructional techniques of teachers during online and on-campus learning.

***Table 9: Paired Sample Correlations between Online and On-campus Learning***

| **Paired Sample (Online – On-campus)** | **Correlation** | **Significance** |
|---|---|---|
| Teachers' Responsibility | .44 | .00 |
| Teachers' Interpersonal Role | .46 | .00 |
| Teachers' Technological Facilitator Role | .44 | .00 |
| Teachers' Facilitator Role | .14 | .01 |
| Teachers' Group Processes Role | .61 | .00 |
| Teachers' Leadership Role | .36 | .00 |
| Teachers' Instructional Practices during Online Learning | .82 | .00 |

Table 9 shows that teachers' instructional practices during online and on-campus classes were significantly correlated (p = 0.01).

***Table 10: Results of Paired Samples t-test***

| **Paired Sample (Online - On-campus)** | **Mean** | **Std. Deviation** | **Sig. (2- tailed)** |
|---|---|---|---|
| Teachers' Responsibility | -.30 | 2.59 | .04 |
| Teachers' Interpersonal Role | .29 | 2.33 | .03 |
| Teachers' Technological Facilitator Role | -.43 | 2.72 | .00 |
| Teachers' Facilitator Role | .42 | 2.12 | .00 |
| Teachers' Group Processes Role | .20 | 2.23 | .12 |
| Teachers' Leadership Role | .75 | .268 | .00 |
| Teachers' Instructional Practices during Online Learning | .12 | 5.87 | .00 |

Table 10 shows that Paired sample t-test findings for all parameters except teachers' group process role (p =.12) reveal that there was a statistically significant difference (p = 0.05) between teachers' instructional practices in online and on-campus classrooms.

## DISCUSSION

The first objective was to determine the perceived instructional practice level of teachers during online and on-campus learning. The purpose of this research was to investigate perceptions of

students' instructional methods during online and on-campus learning, as well as their effect on students' engagement and academic self-efficacy. The findings give useful insights into these interactions and add to our knowledge of successful instructional practices in various learning settings.

The descriptive data shown in Tables 1 and 2 provide the mean scores for each instructional practice aspect. Overall, students assessed instructional practice to be of relatively good quality for both online and on-campus learning. Factors such as teachers' accountability, interpersonal responsibilities, and leadership roles obtained higher mean ratings, suggesting that students viewed their teachers to apply these components well. However, elements associated with technology facilitation and group procedures had slightly lower mean value, indicating potential areas for instructional practice development.

The second objective was to analyse the impact of teachers' instructional practices on students' engagement during online and on-campus learning. The multiple regression analysis results presented in Table 3 demonstrate that teachers' instructional practices significantly predicted student engagement. The model accounted for 34.6% of the variance in student engagement, highlighting the importance of instructional practices in shaping students' engagement levels. Specifically, higher levels of on-campus instructional practice were associated with increased student engagement. Although the relationship between online instructional practices and student engagement did not reach statistical significance, it demonstrated a positive trend. These findings emphasise the significance of effective instructional practices in promoting student engagement, regardless of the learning environment.

The third objective was to examine the influence of teachers' instructional strategies on students' academic self-efficacy throughout both online and on-campus learning. Table 4 presents the findings of a multiple regression analysis indicating that instructional techniques impact academic self-efficacy among students. The variation in academic self-efficacy explained by this model was 21.1%. Specifically, online teaching practices had a substantial beneficial influence on academic self-efficacy, indicating that well-implemented online instructional approaches increase students' academic confidence. The effect of on-campus instructional techniques on academic self-efficacy, however, was not statistically significant. The elements that determine this association must be investigated further.

The fourth objective was to investigate the connections between teachers' instructional approaches during online and on-campus learning, students' engagement, and academic self-efficacy. The correlation coefficients shown in Tables 5, 6, 7, and 8 indicated the existence of substantial positive correlations between instructional methods, student involvement, and academic self-efficacy. These results indicate that successful teaching techniques, whether online or on campus, correlate to greater student engagement and academic self-efficacy.

The fifth objective was to compare teachers' instructional practices during online and on-campus learning. The matched sample correlations shown in Table 9 demonstrated strong positive correlations between instructional practices in online and on-campus classrooms. In addition, the findings of the paired sample t-test reported in Table 10 reveal statistically significant differences in several instructional practices between online and on-campus learning. These results illustrate the distinct qualities and concerns of instructional approaches in different learning settings.

Furthermore, the research highlights the necessity for a balanced approach to instructional practice in diverse learning situations. Even while online instructional activities had a favourable effect on academic self-efficacy, the value of on-campus practises cannot be ignored. Institutions must guarantee that both online and on-campus teaching methodologies are meticulously crafted and matched with the distinctive features of each learning environment.

The findings of this research give useful insights into the perceived levels of instructional practices throughout online and on-campus learning, their influence on student engagement and academic self-efficacy, and comparisons across learning contexts. These results demonstrate the significance of good teaching strategies in fostering student engagement and academic self-efficacy. Educators and institutions must consider these issues when creating and executing instructional techniques for both online and on-campus environments.

## IMPLICATIONS

For educational practitioners and policymakers, this research has major significance. These results underscore the significance of creating and executing successful instructional strategies in both online

and on-campus learning contexts. To boost student involvement and academic self-efficacy, educators should work to improve their abilities in areas like accountability, interpersonal communication, and leadership. Institutions should offer teachers professional development opportunities and tools to assist them in enhancing their teaching practices.

The outcomes of this research have significance for the development and delivery of curricula. This study reveals that, in order to increase student engagement and promote active learning, teachers should use a range of instructional practices and technological tools. The findings of this study indicate that teachers should use a variety of instructional tactics and technological tools to increase student engagement and promote active learning. Interactive learning platforms, multimedia materials, and collaborative activities may increase student engagement and develop a feeling of self-efficacy in both online and on-campus contexts.

## CONCLUSION

This research gives useful insights into the perceived quality of instructional practices in the context of online and on-campus learning, their influence on student engagement and academic self-efficacy, and comparisons across learning contexts. Furthermore, this study was successful in analysing how students' engagement and self-efficacy were affected by teachers' instructional practices. Furthermore, instructional practices used by teachers on campus and online learning were compared in this study. These results highlight the importance of effective instructional practices in promoting positive student outcomes. Teachers and institutions should consider these findings when designing and implementing instructional strategies to create engaging, effective learning environments. Future research should continue to explore instructional practices in diverse educational settings and investigate their long-term effects on students' learning and success. The introduction and incorporation of high-quality online education in Pakistan will take time. Blended learning should be a way forward for Pakistan's education system to follow the global trends of higher education.

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