International Journal of Applied Science and Engineering Review

IJASER

ISSN: 2582-6271

Vol. 6, Issue.3, May-June 2025, page no. 52-63

To cite this article: Anna May A. Proel and John Manuel C. Buniel (2025). BEHAVIORAL PREDICTORS OF BLENDED LEARNING ENGAGEMENT AMONG AUTOMOTIVE STUDENTS IN A HIGHER EDUCATION SETTING, International Journal of Applied Science and Engineering Review (IJASER) 6 (3): 52-63 Article No. 227 Sub Id 349

BEHAVIORAL PREDICTORS OF BLENDED LEARNING ENGAGEMENT AMONG AUTOMOTIVE STUDENTS IN A HIGHER EDUCATION SETTING

Anna May A. Proel and John Manuel C. Buniel

North Eastern Mindanao State University

DOI: https://doi.org/10.52267/IJASER.2025.6303

ABSTRACT

As learning shifts towards a blend of online and in-person methods, it has become crucial to understand why students act the way they do and how that affects their involvement in learning, especially in hands-on fields like technical and vocational training. Based upon the Theory of Planned Behavior (TPB), this study explored the predictors of blended learning engagement among Automotive Technology students at North Eastern Mindanao State University–Cantilan Campus. Data were collected through a validated and reliable structured questionnaire assessing five TPB constructs: Attitude, Perceived Behavioral Control (PBC), Subjective Norms, Actual Behavior, and Intention. Descriptive analysis revealed generally positive perspectives on blended learning, with students demonstrating a favorable attitude, strong social influences from peers and instructors, and a strong belief in their capability to handle blended learning. Subjective Norms, Attitude, and PBC were identified as significant factors influencing students' intent to participate in blended learning, based on a multiple linear regression analysis. Furthermore, simple linear regression revealed that Intention was a strong predictor of Actual Engagement, explaining a substantial portion of the variance in students' participation. The outcomes of this study emphasize the significant role of psychological factors in adopting blended learning and provide empirical insights for higher education institutions seeking to enhance student engagement in hybrid learning environments. Educational strategies should focus on strengthening motivational factors, improving perceived control, and enhancing students' self-efficacy to promote sustained participation in blended learning.

KEYWORDS: Blended learning, Student engagement, Theory of Planned Behavior, Automotive Education, behavioral predictors, Higher education

International Journal of Applied Science and Engineering Review

IJASER

ISSN: 2582-6271

Vol. 6, Issue.3, May-June 2025, page no. 52-63

INTRODUCTION

As a dynamic educational model, blended learning merges traditional in-person instruction with digital aspects. This approach cultivates adaptable, student-focused learning opportunities that facilitate computer-supported, constructivist, and cooperative educational engagement (Rozia Bashir et al., 2023). Regarding Technical-Vocational Education and Training (TVET), integrating digital pedagogies has gained momentum, offering enhanced flexibility and personalized learning opportunities (Chen & Chan, 2024). Despite advancements, difficulties still exist. These include the uneven availability of technological equipment and the requirement to improve digital competence among teaching personnel (Chen & Chan, 2024; Holler et al., 2023). Although TVET lecturers generally rate their digital competencies positively, many still require additional support in planning and delivering practical technology-enhanced lessons (Holler et al., 2023). As higher education institutions adopt blended learning modalities, it becomes increasingly important to examine the behavioral determinants influencing students' willingness and capacity to engage in such environments, particularly within skills-based programs.

A reliable structure for understanding and predicting human actions in many different areas, including the field of education, is provided by the Theory of Planned Behavior (TPB) (Ajzen, 1991). The Planned Behavior Theory suggests that three main things form a person's intention to act in a certain way. First, there is their attitude toward the action itself. Second are subjective norms, meaning the social pressure they feel. The third is perceived behavioral control (PBC), which is how easy or hard they think the action will be for them to do. When we look at education, the TPB has been a really useful tool for predicting what students plan to do and how much they get involved in virtual and blended courses. Empirical studies support the model's validity, consistently showing that attitude, subjective norms, and PBC significantly predict students' willingness to adopt blended learning approaches (Bokolo et al., 2020). However, little research focuses explicitly on **automotive technology students**, whose learning requires integrati**ng cognitive and psychomotor domains**. This dual demand renders their engagement in blended learning both intricate and distinct, warranting a closer examination of how TPB constructs operate within this population.

Understanding the behavioral predictors of blended learning engagement is particularly critical for technical education programs, where a balance between digital content and hands-on training is essential for developing competence. While previous studies have highlighted general trends in adopting blended learning (Dang,2020), there remains a significant gap in empirical evidence regarding how technical students, such as those in automotive technology, perceive and engage with blended learning opportunities. Perception differences have been observed across demographic groups, underscoring the importance of tailoring interventions that promote digital engagement and preserve the integrity of skill-based instruction. Understanding variations in how people perceive things is essential for creating

ISSN: 2582-6271

Vol. 6, Issue.3, May-June 2025, page no. 52-63

successful methods to boost student participation. This understanding also helps ensure that practical learning experiences maintain their importance and high quality.

To fill the research gap that has been pointed out, this investigation applied the Planned Behavior Theory. It aimed to determine what predicts blended learning involvement among students studying automotive technology at a higher education school in the Philippines. This study aims to answer the following specific questions:

1. What are the **Attitude, Subjective Norms,** and **Perceived Behavioral Control** levels of automotive technology students toward blended learning?
2. To what extent do **Attitude, Subjective Norms,** and **Perceived Behavioral Control** significantly influence students' **Intention** to engage in blended learning?
3. Does **Intention** significantly predict students' **actual involvement with blended learning**?

By examining these relationships, this study offers valuable insights into how higher education institutions, particularly those offering technical-vocational programs, can design behaviorally informed strategies to foster meaningful **involvement with blended learning.** The outcomes of this research add to the expanding body of knowledge regarding teaching methods involving technology and how students act in specific subject areas. Crucially, they furnish evidence-based support for the continued application and enhancement of blended learning approaches within technical training environments.

METHODOLOGY:

Research Design

This research employed a quantitative, correlational approach to explore the behavioral factors predicting blended learning participation among automotive technology students. Drawing from the framework of the Theory of Planned Behavior (TPB) (Ajzen, 1991), this research examined how Subjective Norms, Attitude, and Perceived Behavioral Control (PBC) were connected to students' intentions to engage in blended learning. It then investigated the influence of these intentions on their actual participation. This design was selected for its appropriateness in measuring directional relationships among theoretically derived variables and identifying statistically significant predictors of behavioral outcomes in an educational context.

Population and Sample

The target population consisted of all automotive technology students (N = 642) enrolled at North Eastern Mindanao State University – Cantilan Campus during the academic year 2024–2025. Using a convenience sampling technique, the survey involved 380 student volunteers, achieving a response rate of roughly 59.2%. The sample size gathered is more than enough according to the minimum number of participants

ISSN: 2582-6271

Vol. 6, Issue.3, May-June 2025, page no. 52-63

needed for a multiple regression analysis involving three predictors. This minimum was calculated based on guidelines from Cohen (1992) for achieving a statistical power of 0.80 at an alpha level of 0.05, ensuring adequate statistical validity. Respondents included students from various year levels, offering a diverse perspective on blended learning experiences.

Research Instrument

Data were primarily gathered using a structured survey. Participants completed this questionnaire independently, and its development drew upon the key concepts from the Planned Behavior Theory. The instrument consisted of five subscales measuring:

- Attitude – represents how students evaluate blended learning, either positively or negatively;
- Subjective Norms – refers to the perceived social influence originating from peers, teachers, and family members;
- Perceived Behavioral Control (PBC) – students' confidence in their capability to engage in blended learning;
- Intention – the degree of willingness or plan to participate in blended learning;
- Actual Behavior – self-reported engagement in blended learning tasks.

A series of items was utilized to measure each construct. Participants answered these questions using a 5-point Likert scale, where a rating of 1 meant Strong Disagreement, and 5 indicated Strong Agreement. These measurement items were adapted from existing and validated TPB tools utilized in earlier studies focused on education and then tailored specifically for the technical and vocational education environment.

Validity and Reliability of the Instrument

To ensure content and construct validity, three specialists reviewed the questionnaire in educational research, educational psychology, and instructional technology. Their feedback guided item phrasing, scale alignment, and construct representation revisions. Subsequently, a preliminary test was conducted using 50 automotive learners from a comparable institution who were not part of the final study sample.

Reliability testing of the pilot data utilizing Cronbach's alpha yielded values ranging from 0.83 to 0.89 across the five constructs, confirming high internal consistency. These metrics established the instrument's suitability for measuring the behavioral constructs and ensured methodological rigor consistent with social science research standards.

International Journal of Applied Science and Engineering Review

IJASER

ISSN: 2582-6271

Vol. 6, Issue.3, May-June 2025, page no. 52-63

Data Collection Procedure

Upon following ethical endorsement by the university's research ethics board, formal coordination was established with program heads and instructors for the administration of the instrument. Students were asked to join the study voluntarily. They were also fully informed about why the research was being conducted, the measures to protect their privacy, and their entitlement to stop participating at any time without facing any adverse outcomes. Before individuals took part, their informed consent was acquired. The questionnaires were administered in print and via a secured online platform to maximize accessibility.

Data Analysis Techniques

To address the research questions:

- The average score (Mean) and how spread out the scores were (Standard Deviation) were employed to assess the levels of automotive technology learners concerning their Attitude, Perceived Behavioral Control, and Subjective Norms concerning blended learning.
- A multiple linear regression analysis was performed to identify how well Subjective Norms, Attitude, and PBC served as predictors of students' intent to participate in blended learning.
- A simple linear regression analysis was utilized to ascertain how students' Intention could predict their Actual Engagement in activities related to blended learning.

RESULTS AND DISCUSSION

Table 1. Descriptive Statistics for Attitude, Subjective Norms, Perceived Behavioral Control, Intention, and Actual Engagement in Blended Learning

Index	Attitude	Subjective Norms	PBC	Intention	Behavior
count	380.0	380.0	380.0	380.0	380.0
mean	4.116	4.082	4.066	4.12	4.089
std	0.787	0.826	0.849	0.809	0.827

To address the first research question, descriptive statistics were computed to determine the levels of **subjective norms**, **attitude**s, and **perceived behavioral control (PBC)** among students about their engagement with blended learning. The results presented in Table 1 show consistently high mean scores across all indicators on a five-point Likert scale, indicating generally positive perceptions of and engagement in blended learning. Specifically, students demonstrated a high level of **attitude** (M = 4.116, SD = 0.787), suggesting that blended learning is practical, flexible, and conducive to their learning preferences. **Subjective norms** also yielded a strong mean score (M = 4.082, SD = 0.826), implying that students feel notable social encouragement from peers, instructors, and family members. Similarly,

ISSN: 2582-6271

Vol. 6, Issue.3, May-June 2025, page no. 52-63

perceived behavioral control was high (M = 4.066, SD = 0.849), indicating that students feel confident in navigating the technical and self-regulatory demands of blended learning.

These positive perceptions are further reflected in students' **intention to engage** (M = 4.120, SD = 0.809) and **actual engagement** (M = 4.089, SD = 0.827), demonstrating alignment between intention and behavior, a core postulate of the Planned Behavior Theory (Ajzen, 1991). The relatively low standard deviations across variables indicate consistency in responses, reinforcing the reliability of the learners' attitudes about blended learning. Research consistently supports the influence of positive attitudes, supportive social norms, and high perceived control on technology acceptance in educational contexts. Research conducted by Lee et al. (2010) revealed that Perceived Behavioral Control, Subjective Norms, and Attitude strongly predict teachers' plans to employ computers when developing and delivering lessons. Similarly, Teo (2010) expanded the Technology Acceptance Model. This expanded model integrated technological complexity, subjective norms, and facilitating conditions as influences determining how pre-service teachers felt about using computers.

The findings have several important implications for adopting blended learning in university settings. First, the positive attitude toward blended learning suggests that institutions should continue to expand these modalities, particularly in the post-pandemic educational landscape. Students' favorable views highlight the value of blended learning, making it essential for institutions to design curricula that leverage this receptivity.

Second, the high perceived social influence underscores the need for a supportive learning culture. Faculty, peers, and institutional leaders are key in encouraging student engagement. Promoting structured peer collaboration and faculty mentorship can further enhance participation in blended learning. Third, students' strong perceived behavioral control indicates their digital readiness and adaptability, emphasizing the importance of maintaining sufficient technological infrastructure and digital literacy initiatives to empower students in blended learning environments.

Finally, the alignment between intention and behavior validates how well the Planned Behavior Theory can predict. When students value blended learning, feel socially encouraged, and are confident in their abilities, they tend to become actively involved. Overall, the findings offer significant insights for universities aiming to build blended learning setups that are successful, welcoming, and sustainable. This involves integrating the critical predictors identified by the study – such as students' Intention, Perceived Behavioral Control, Subjective Norms, and Attitude – into their institutional strategies.

International Journal of Applied Science and Engineering Review

IJASER

ISSN: 2582-6271

Vol. 6, Issue.3, May-June 2025, page no. 52-63

Table 2. Multiple Linear Regression Results Predicting Students' Intention to Engage in Blended Learning

Variable	Coefficient (β)	Standard Error	t-value	p-value	[0.025	0.975]
constant	0.324227	0.096926	3.345106	0.000905	0.133642	0.514811
Attitude	0.199751	0.048066	4.155795	$4e^{-05}$	0.10524	0.294262
Subjective Norms	0.357744	0.051162	6.992326	0.001	0.257144	0.458344
PBC	0.372077	0.042473	8.760412	0.001	0.288564	0.455591

Note: β = regression coefficient; Standard Error = estimate variability; t = test statistic; p = significance level; 95% CI = confidence interval for β.

To assess how well students' intention regarding participation in blended learning could be predicted, considering their Perceived Behavioral Control (PBC), Subjective Norms, and Attitude, the Ordinary Least Squares approach was utilized in a multiple linear regression analysis. As shown in Table 2, the overall model is statistically significant, with each of the three independent variables emerging as key factors shaping behavioral intent.

The multiple regression analysis revealed Perceived Behavioral Control ($\beta = 0.372$, $p < 0.001$) to be the most powerful predictor of students' plans for engaging with blended learning. Subjective Norms ranked as the second most influential factor ($\beta = 0.358$, $p < 0.001$), with Attitude also showing a statistically significant impact ($\beta = 0.200$, $p < 0.001$). The significance levels (all $p < 0.001$) and narrow 95% confidence intervals (which do not cross zero) for each coefficient confirm that the predictors have meaningful and statistically robust effects. These results support the foundational ideas of the Planned Behavior Theory or TPB (Ajzen, 1991). This theoretical model proposes that behavioral intention is a result of several interacting components: a person's favorable view toward the action (attitude), the social expectations they perceive (subjective norms), and how easy or difficult a person believes acting will be (PBC).

The practical significance of this outcome holds considerable weight for developing and deploying blended learning structures at universities and colleges. Firstly, Perceived Behavioral Control's leading role in forecasting intention underscores the importance of self-efficacy and access to necessary resources. When students believe they can handle the technological and cognitive requirements of blended learning, their inclination to strongly intend to participate increases. This aligns with Al-Harbi's findings (2011) from Saudi Arabia, which indicated that PBC was the most crucial driver impacting students' plans to

ISSN: 2582-6271

Vol. 6, Issue.3, May-June 2025, page no. 52-63

utilize e-learning. Likewise, Nayanajith and Damunupola (2021) verified a favorable link connecting PBC with the uptake of e-learning among students in Sri Lankan international schools. Furthermore, Altawalbeh and Al-Mughrabi (2024) also provided evidence that PBC substantially impacted students' behavioral intent regarding digital learning platforms within Jordanian higher education.

Secondly, the significant ability of subjective norms to forecast behavior underscores the vital influence of social factors in the embrace and use of blended education. The influence exerted by peers, instructors, and family members upon students' behavioral intentions corresponds with the claim by Shuter et al. (2016) that cultural values—especially those tied to respecting authority—play a significant role in shaping educational actions. Similarly, Lohnes and Kinzer (2007) emphasized that integrating digital technologies into students' everyday lives has transformed social practices, extending learning interactions beyond traditional classroom boundaries. These findings suggest that higher education institutions must foster an academic culture that visibly endorses blended learning. This can be achieved by positioning faculty as digital learning advocates, facilitating peer collaboration, and sharing success narratives to build normative support and reinforce positive perceptions of blended modalities.

Third, while attitude emerged as the least strong among the three predictors, its statistically significant effect underscores its continuing relevance in shaping students' engagement with blended modalities. Students' favorable beliefs about the flexibility, interactivity, and overall effectiveness of blended learning contribute meaningfully to their behavioral intentions. Prior research supports this finding. For instance, Chen and Yang (2014) uncovered notably favorable perspectives regarding language learning enhanced by technology incorporating intercultural elements. McPhail and Birch (2004) reported that over 80% of students responded favorably to using TEL resources. These positive dispositions are linked to increased student engagement and improved academic outcomes. Additionally, Lee and Choi (2017) stressed that a student's attitude is crucial for learners' choices when in digital learning settings.

Consequently, these research results validate the fundamental premises of the Theory of Planned Behavior (TPB). While Perceived Behavioral Control, Subjective Norms, and Attitude contribute to developing behavioral intention, fostering a supportive social environment and empowering learners through greater perceived control are vital strategies for promoting meaningful engagement in blended learning contexts.

International Journal of Applied Science and Engineering Review

IJASER

ISSN: 2582-6271

Vol. 6, Issue.3, May-June 2025, page no. 52-63

Table 3. Simple Linear Regression Results Predicting Students' Actual Engagement from Their Intention

Variable	Coefficient	Standard Error	t	P-value|	[0.025	0.975]
constant	0.391452	0.105674	3.704349	0.000244	0.18367	0.599234
Intention	0.897645	0.025171	35.661341	0.001	0.848151	0.947138

Predictive Influence of Intention on Actual Engagement in Blended Learning

A simple linear regression analysis was conducted to determine whether intention significantly predicts students' actual engagement in blended learning. Insights from Table 3 reveal intention to be a highly potent and statistically significant predictor of authentic engagement. More precisely, the regression coefficient calculated for the intention variable was $\beta = 0.898$ ($p < 0.001$). This finding suggests that for every one-unit gain in a student's intention, an increase occurs close to a complete unit in their actual participation in blended learning. Further evidence for this strong connection comes from a substantial coefficient of determination, measuring 0.7714. This figure suggests that intention accounts for 77.14% of the total variability observed in students' actual participation in blended learning. These findings substantially align students' motivational disposition and their observable learning behaviors.

This outcome supports the core concept of the Theory of Planned Behavior (TPB) (Ajzen, 1991). This model asserts that behavioral intention is the most direct influence on actual conduct. Within the blended learning framework, when learners hold firm intentions—shaped by positive attitudes, encouraging social norms, and feeling they can control their learning—they tend to convert those intentions into active involvement. This outcome aligns with a growing body of empirical literature emphasizing the predictive strength of intention in e-learning and m-learning contexts. For instance, intention to use a system has regularly been identified as a reliable indicator of how it is used. This outcome is influenced by elements like how easy the system is perceived to be, its perceived utility, and user satisfaction (Mohammadi, 2015; Al-Maroof et al., 2020).

Furthermore, the quality level of the system and its information notably impacts how satisfied users are and students' inclination to act (Mohammadi, 2015). In blended learning environments, subjective norms and perceived images further enhance intention formation. Collectively, these findings affirm the validity of TPB in explaining students' engagement in technology-enhanced education and underscore the importance of fostering favorable perceptions, social support, and digital readiness to sustain blended learning practices.

The findings substantially impact educational practice, particularly enhancing student engagement within

ISSN: 2582-6271

Vol. 6, Issue.3, May-June 2025, page no. 52-63

blended learning environments. The powerful connection between intention and real actions highlights the necessity of cultivating intention as a deliberate tool for promoting involvement. Educational interventions that strengthen students' motivation—such as peer modeling, value-driven goal setting, and fostering learner agency—can significantly improve behavioral outcomes. Consequently, institutional efforts must go beyond providing technological infrastructure and access; they must also cultivate intrinsic and extrinsic motivational factors that reinforce students' readiness and willingness to participate in digitally mediated learning.

Furthermore, the predictive strength of intention may reflect a higher level of self-regulation and goal orientation among learners. Consistent with Zimmerman's (2002) Self-Regulated Learning Theory, this framework suggests that planning and self-directed behavior are crucial in students' academic achievement. By aligning blended learning strategies with students' articulated intentions, institutions can optimize instructional design and ensure a more meaningful connection between pedagogical goals and learner behavior.

The strong intention-behavior correlation ultimately affirms the validity and practical relevance of the Planned Behavior Theory in the blended learning context. It emphasizes fostering robust motivational foundations that enable students to translate educational intentions into sustained, effective engagement.

CONCLUSION

This investigation aimed to explore the psychological factors influencing students' involvement in blended learning, with the Theory of Planned Behavior (TPB) as the theoretical foundation. The study's findings indicate compellingly that students possess positive attitudes, sense robust social backing, and report considerable confidence in engaging with blended learning formats. These constituent elements—attitude, Perceived Behavioral Control, and Subjective Norms—each exhibited noteworthy positive influence on students' plans for participation, thus validating the predictive power of the TPB in contexts involving educational technology.

Moreover, intention was highly predictive of actual engagement, explaining over 77% of the variance in behavioral participation. This underscores the notion that when students are psychologically committed to engaging in blended learning—fueled by internal motivation, social reinforcement, and self-efficacy—this intention is likely to manifest in concrete actions. The strength of the intention-behavior link highlights the importance of cultivating positive beliefs and supportive learning environments to enhance student participation in hybrid educational formats.

These findings advance our understanding of the cognitive and motivational mechanisms underlying student behavior in technologically integrated learning environments. They also offer practical insights

ISSN: 2582-6271

Vol. 6, Issue.3, May-June 2025, page no. 52-63

for educators, administrators, and policymakers: strategies that enhance students' attitudes, leverage peer and instructor support, and build learners' confidence in navigating digital tools can effectively increase both intention and actual participation in blended learning.

Ultimately, the results affirm the robustness of the TPB as a framework for predicting educational behaviors in the 21st-century classroom and suggest that fostering psychological readiness is just as crucial as providing technological infrastructure. Future studies may extend this work by exploring the mediating roles of digital literacy, learning satisfaction, and institutional support in shaping behavioral outcomes within blended learning systems.

REFERENCES

Al-Maroof, R. S., Alhumaid, K., & Salloum, S. A. (2020). The continuous intention to use e-learning, from two different perspectives. *Education Sciences, 11*(1), 6. https://doi.org/10.3390/educsci11010006

Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes, 50*(2), 179–211. https:// doi.org/ 10.1016/0749-5978(91)90020-T

Al-Harbi, K.R. (2011). Investigating factors influencing the adoption of e-learning : Saudi students' perspective.

Altawalbeh, M. A., & Al-Mughrabi, A. (2024). Using the TPB model to determine factors affecting e-learning adoption in Jordanian higher education. *International Journal of Innovative Research and Scientific Studies, 7*(2), 313–322. https://doi.org/10.53894/ijirss.v7i2.2746

Bashir, R., Bashir, N., & Peerzada, N. (2023). *Transforming education: The role of blended learning*. *Journal for ReAttach Therapy and Developmental Diversities, 6*(9s). https://doi.org/10.53555/jrtdd.v6i9s.2633

Bokolo, A., Kamaludin, A., Romli, A. M., Mat Raffei, A. F., Phon, D. N. E., Abdullah, A., Ming, G., Shukor, N. A., Nordin, M. S., & Baba, S. (2020). Predictors of blended learning deployment in institutions of higher learning: Theory of planned behaviour perspective. *International Journal of Information and Learning Technology, 37*(4), 239–252. https://doi.org/10.1108/IJILT-02-2020-0013

Chen, J.J., & Yang, S.C. (2014). Fostering Foreign Language Learning through Technology-Enhanced Intercultural Projects. *Language Learning & Technology, 18*, 57-75.

ISSN: 2582-6271

Vol. 6, Issue.3, May-June 2025, page no. 52-63

Chen, X., & Chan, S. (2024). *Implementing digital pedagogy in TVET: A connectivist perspective*. *Vocation, Technology & Education*. https:// doi. org/ 10. 54844/ vte.2024.0595

Cohen, J. (1992). *A power primer*. *Psychological Bulletin*, *112*(1), 155–159. https://doi.org/10.1037/0033-2909.112.1.155

Dang, M. Y. (2020). Understanding students' perception differences on blended learning: An explorative study among college students. *Journal of Education and Learning*, *9*(4), 147–159. https://doi.org/10.5539/jel.v9n4p147

Holler, S., Brändle, M., & Zinn, B. (2023). *How do South African TVET lecturers rate their digital competencies, and what is their need for training for a digital transformation in the South African TVET sector? Journal of Vocational, Adult and Continuing Education and Training, 6*(1). https://doi.org/10.14426/jovacet.v6i1.314

Lee, J., Cerreto, F.A., & Lee, J. (2010). Theory of Planned Behavior and Teachers' Decisions Regarding Use of Educational Technology. *J. Educ. Technol. Soc., 13*, 152-164.

Lee, J., & Choi, H. (2017). What affects learner's higher-order thinking in technology-enhanced learning environments? The effects of learner factors. *Comput. Educ., 115*, 143-152.

Mcphail, J., & Birch, D. (2004). Student's attitudes towards technology-enhanced learning resources for an introductory marketing course.

Mohammadi, H. (2015). Investigating users' perspectives on e-learning: An integration of TAM and IS success model. *Comput. Hum. Behav., 45*, 359-374.

Nayanajith, D.A., & Damunupola, K.A. (2021). Impact of Perceived Behavioral Control on E-learning Adoption. *Interdisciplinary Research in Education*.

Teo, T. (2010). A path analysis of pre-service teachers' attitudes to computer use: applying and extending the technology acceptance model in an educational context. *Interactive Learning Environments, 18*, 65 - 79.

Zimmerman, B. (2002). Becoming a Self-Regulated Learner: An Overview. *Theory Into Practice, 41*, 64 - 70.