Journal of World Englishes and Educational Practices
ISSN: 2707-7586
DOI: 10.32996/jweep
Journal Homepage: www.al-kindipublisher.com/index.php/jweep

JWEEP
AL-KINDI CENTER FOR RESEARCH AND DEVELOPMENT

| RESEARCH ARTICLE

Factors Influencing Students' Academic and Non-Academic Engagement

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| ABSTRACT
This research study utilized a quantitative research design. This study aimed to determine the influence of active learning strategies, student-faculty interaction, quality of instruction and overall college experience, internet and campus technology to students' academic and non-academic engagement in school. The data were statistically analyzed to provide answers to the research questions where mean was used to determine the levels of active learning strategies, student-faculty interaction, quality of instruction and overall college experience, internet and campus technology and student engagement in school. Moreover, the Pearson product-moment correlation was used to investigate the relationship between the variables. Furthermore, the Multiple Regression analysis was employed to measure the influence of active learning strategies, student-faculty interaction, quality of instruction and overall college experience, internet and campus technology on student engagement in school. Results show that active learning strategies (ALS), student-faculty interaction (SFI), quality of instruction and overall college experience (QICE), information and campus technology (ICT) are significantly correlated to students' academic and non-academic engagement. Furthermore, results indicate that student-faculty interaction, quality of instruction and overall college experience, and information and campus technology are significant predictors of students' academic and non-academic engagement. The results suggest that teachers should consider to use teaching-learning strategies that are more engaging. On the other hand, it is concluded that student and teacher interaction make learning more accepting and conducive as the key players of teaching and learning create an active interplay of respect for each other. Conversely, providing an accepting classroom environment, varied and quality teaching strategies is necessary as it increases engagement among students. Consequently, the ability to access digital information is considered foundational for continuous learning.

| KEYWORDS

Academic and Non-Academic Engagement, Active Learning Strategies, Student-Faculty Interaction, Quality of Instruction and Overall College Experience, and Information and Campus Technology.

| ARTICLE INFORMATION

ACCEPTED: 01 June 2025 **PUBLISHED:** 30 June 2025 **DOI:** 10.32996/jweep.2025.7.2.3

1. Introduction

The academic performance of college students is the result of a complex interplay of factors within their learning environment. Notably, Rugutt and Chemosit's (2005) investigation utilizing Structural Equation Modeling (SEM) unveiled influential determinants of college academic achievement. Their findings underscored the pivotal roles played by internet and campus technology, instructional quality, overall college experience, and student-faculty interaction in shaping students' academic success. Within the context of higher education, the pursuit of academic excellence is beset by global challenges intrinsic to the learning landscape. Aziz, Khan, and Singh's (2010) research highlights the transformative impact of information technology on student learning. This technology facilitates dynamic engagement and interaction with instructors and peers, thereby fostering enriched learning experiences.

De Borba, Alves, and Campagnolo (2020) further emphasize the significance of physical learning spaces that encourage flexibility, interaction, and connectivity, fostering heightened student engagement and interactive learning experiences. Echoing this

sentiment, Trolian, Archibald, and Jach (2022) underscore the crucial role of student-faculty interactions in cultivating well-being. They illuminate the positive correlation between meaningful dialogues and students' psychological equilibrium.

In Saudi Arabian context, Almoslamani's (2022) study on university students' learning strategies and academic achievement revealed the prominence of microstrategies and study habits among Saudi students. The study also unveiled notable gender-based differences in learning strategy preferences, with female students displaying a higher inclination. Moreover, the research illuminated the significant predictive role of learning strategies in academic attainment. Similarly, in Malaysia, Hasnor et al. (2013) investigation exposed a significant link between learning approaches and academic success among INTEC students at UiTM Shah Alam. These findings underscore the importance of cultivating meaningful learning strategies to bolster students' readiness for real-world challenges.

Transferring our focus to the Philippines, the PISA 2018 study illuminated noteworthy disparities in academic achievement tied to material resources and school climate across schools and among students. The data highlighted that these disparities originate from diverse sources and exert distinct effects depending on the school type and location. Furthermore, gender and socioeconomic status emerged as predictors of academic achievement, albeit insufficient to comprehensively account for the observed variance (Trinidad, 2020).

However, despite the invaluable insights garnered from previous research, a research gap persists, specifically regarding how these factors manifest at the San Isidro Campus of Davao Oriental State University. This knowledge gap necessitates immediate attention to unravel the unique dynamics and influences operating within this particular educational setting. The examination of these variables within the context of San Isidro Extension Campus aims to bridge this gap and pinpoint targeted enhancements that can directly uplift students' academic outcomes in this distinct locale. The urgency of this research is underlined by its potential to furnish actionable insights and recommendations for enhancing the educational journey and academic accomplishments of the campus' student body.

2. Theoretical Framework

This study is grounded in well-established theoretical models that highlight the complex relationship between the learning environment, student engagement, and academic success. Among these key frameworks are Astin's Input-Environment-Outcome (I-E-O) Model, Tinto's Student Integration Model, and Kuh's Theory of Engagement. These theories collectively provide a structured perspective for examining the factors that shape students' educational experiences and outcomes in higher education.

Astin's I-E-O Model (1993) serves as a foundational framework by emphasizing that student outcomes are shaped by the interaction between their pre-college characteristics, the institutional environment, and their resulting educational achievements. This study aligns with Astin's model by examining how active learning strategies, instructional quality, and campus technology, elements of the environment contribute to students' academic and non-academic engagement. Understanding how these environmental factors influence student involvement is essential for developing enriched learning experiences that promote both cognitive and personal growth (Chen et al, 2023).

Similarly, Tinto's Student Integration Model (1993) underscores the role of academic and social integration in student persistence and success. According to Tinto, students who actively engage with faculty, peers, and institutional support systems are more likely to remain committed to their educational journey. This study reflects Tinto's perspective by analyzing the extent to which student-faculty interactions, campus experiences, and institutional support structures contribute to academic motivation and overall engagement. Strong connections with educators and peers create a sense of belonging, which, in turn, enhances students' commitment to their studies and well-being (Wong et al., 2024).

Further, strengthening the study's theoretical foundation, Kuh's Theory of Engagement (2001) highlights that student's success is driven by their participation in educationally purposeful activities. Kuh argues that high-impact practices such as active learning, meaningful faculty interactions, and co-curricular involvement enhance both academic and personal development. This study builds on Kuh's framework by assessing how various engagement factors, including classroom learning experiences and campus resources, contribute to students' academic and non-academic growth. Additionally, it recognizes the significance of factors beyond the classroom, such as participation in extracurricular activities and access to high-quality learning spaces, in shaping students' holistic development (Delfino & Simatwa, 2019).

3. Review of Related Literature

This review aims to examine existing literature on the factors that influence the academic performance of students in San Isidro Extension Campus, utilizing a quantitative research approach. By exploring relevant studies, this review seeks to identify trends, gaps, and insights that will guide the study.

3.1 Factors that Influence College Academic Achievement

The study conducted by Illinois State University utilized a Structural Equation Modeling (SEM) approach to investigate the factors influencing college academic achievement, shedding light on the impact of student learning strategies, internet and campus technology, quality of instruction, overall college experience, and student-faculty interaction on student academic performance. Firstly, the research explored the influence of student learning strategies, internet and campus technology, quality of instruction, overall college experience, and student-faculty interaction on student academic performance. The results, subsequently, revealed that internet and campus technology, quality of instruction, overall college experience, and student-faculty interaction significantly contributed to predicting academic achievement. Consequently, these findings provide valuable insights into the teaching and learning environments in higher education, emphasizing the importance of considering multiple measures to create enriching learning environments, surpassing the conventional practice of solely relying on faculty feedback from traditional teaching evaluation forms (Rugutt & Chemosit, 2005).

The study by Kuh (1991), on the other hand, aimed to examine the influence of student effort, college environments, and campus culture on undergraduate student learning and personal development. Through the use of qualitative assessments of 13 campus cultures and data gathered from 3,601 undergraduate participants who completed the College Student Experience Questionnaires, the research effectively explored the relationship between these factors and student outcomes across three types of institutions: small residential colleges, large residential universities, and universities located in metropolitan areas. The findings of the study indicated a direct association between student effort, environmental characteristics, and institutional culture with student learning outcomes. Notably, students who invested more effort in their learning activities demonstrated higher levels of learning. Surprisingly, the patterns of student learning and personal development did not show significant variations across the different types of institutions. However, the influence of institutional culture on student learning was found to be more pronounced in large residential institutions compared to small residential colleges and metropolitan universities. These insights, consequently, provide valuable understanding of the factors influencing student success and personal growth within the college setting (Kuh, 1991).

In a similar manner, the study conducted by Karemera, Reuben, and Sillah (2003) investigated the effects of academic environment and background characteristics on student satisfaction and performance at South Carolina State University's School of Business. According to their findings, various factors, such as academic environment, background characteristics, and student satisfaction, were linked to college performance. To elaborate, the researchers utilized a five-point scale to assess student preferences and satisfaction with academic programs and services, and their analysis involved Chi-square tests and Likelihood ratio test statistics. As a result, the results highlighted significant correlations between student satisfaction with academic environment and services, as well as prior high school achievements, with college performance. Additionally, the probability distribution of college majors, the adequacy of library services, and out-of-class experiences also had significant associations with positive college outcomes (Karemera, Reuben, & Sillah, 2003).

Moreover, Graham and Gisi (2000) conducted a study investigating the impact of instructional climate and student affairs services on college outcomes and satisfaction among college alumni. Firstly, the research involved 20,777 participants with a bachelor's or other 4-year degree who completed the American College Testing Alumni Outcomes Survey. Consequently, this survey provided information on employment history, educational experiences, and activities during their time in school. Additionally, the participants rated their colleges and assessed their personal gains in areas such as multicultural perspectives, creative thinking, communication, and problem-solving. Additionally, they measured their satisfaction with instruction and various student affairs services, including academic advising, tutoring, and career planning. Consequently, the results of the study showed that satisfaction with instruction had a greater influence on overall college rating and learning outcomes compared to satisfaction with student affairs services. However, satisfaction with student affairs services still contributed to an increase in overall college rating and reported learning outcomes. In conclusion, the researchers emphasized that the most positive student outcomes are achieved through collaboration between academic affairs and student affairs services, highlighting the importance of integrating these two aspects of college life (Graham & Gisi, 2000).

3.2 Effects of Information Technology on Students' Learning

Computer proficiency plays a crucial role in enabling individuals' participation in society and the workforce. Consequently, the ability to access digital information is considered foundational for continuous learning. As a result, teachers who focus on fostering students' digital information and communication skills are greatly influenced by their own literacy abilities. Moreover, the level of competency in applying digital information and communication skills is determined by the types of technologies used to achieve

various educational goals, such as accessing, evaluating, exchanging, and communicating digital information (Jeffrey et al., 2011; Moreno-Morilla et al., 2021).

In light of the importance of digital information in education, it is essential to recognize the significant contribution of teachers in promoting its use. Furthermore, research indicates that instructors' perspectives and support for digital information usage have a substantial impact. Specifically, the emphasis placed on the digital realm of information for academic purposes is significantly influenced by the roles and views of teachers (Siddiq et al., 2016; Qureshi et al., 2021).
To delve further into the effects of information technology usage on student learning, Aziz, Khan, and Singh (2010) conducted a research study focusing on two aspects: active engagement of students in the learning process and students' interaction with fellow students and/or instructors. Consequently, the study involved surveying 640 community college students from two community college districts in Southern California. The researchers employed both descriptive and inferential statistics, computed with SPSS software, to analyze the data.

The findings, as a result, indicated that over 75% of students either agreed or strongly agreed that the use of information technology helped them be more actively engaged in their learning. Furthermore, approximately 72% of students agreed or strongly agreed that computers made it easier for them to comprehend materials they did not understand in class. Consequently, the researchers tested two hypotheses using Chi-Square and Paired Sample T tests, both of which demonstrated significant results. Specifically, the tests revealed that the use of computers positively impacted students' active engagement in the learning process and increased their interactions with fellow students and/or instructors (Aziz, Khan, & Singh, 2010).

Building on the importance of technology in education, Almaiah et al. (2022) assessed an initiative aimed at advancing the application of digital information technologies in higher education through an integrative approach. Consequently, this approach considers both the flow of digital information and the quality impacts of tutors on the acceptance of technology, using the technology acceptance model (TAM) constructs and the perceived experience of digital information in education (DIE). To evaluate the model and hypotheses, the researchers used data from a survey of 485 college students.

The findings, consequently, highlight that users' perceptions of the value of DIE depend on various extrinsic conditions that enhance their learning and teaching experiences. Additionally, the technological preparedness of users plays a significant role in determining perceived ease of use. Furthermore, in some cultures, the superior quality of tutors can further increase perceptions of the technology's usefulness (Almaiah et al., 2022).

3.3 Quality of Learning Experience and Students' College Outcomes

Neumann and Neumann (1993) conducted a study that examined the relationships between five components of students' quality of learning experience (resources, content, learning flexibility, student-faculty contact, and involvement) and four criteria of college outcomes (students' satisfaction with their college experience, perceived performance in college, commitment to their college, and students' grades). The major findings of their research indicated that students' involvement and learning flexibility were the most influential predictors of all four college outcomes. On the other hand, resources and content were identified as the weakest predictors.

Furthermore, the study revealed that indicators of the quality of learning experience effectively predicted students' satisfaction with their college experience ($R^2 = 0.27$) and grades ($R^2 = 0.20$). These findings have important implications for understanding the factors that contribute to students' college experiences and outcomes (Neumann & Neumann, 1993).

House (1998) conducted a study using the input-environment-outcome assessment model developed by A. W. Astin (1995) to investigate the impact of entering characteristics and college experiences on student satisfaction and degree completion. The research involved 594 college students who had started college approximately 5 years earlier, and they were asked to complete a survey about their college experiences. The survey data was combined with information provided by the students at the time they began college.
The findings, as a result, revealed several significant relationships between entering characteristics, college experiences, and student outcomes. Firstly, students who spent more time commuting tended to allocate fewer hours per week to studying and doing homework. On the other hand, students who spent more time studying and doing homework and those who participated in group projects during class expressed higher levels of satisfaction with their overall instruction in college.

Additionally, the study found that students with higher high school grade point averages tended to rate their overall academic ability more positively and had greater expectations of graduating with honors. Notably, students with higher high school grades, better self-ratings of academic ability, and higher expectations of graduating with honors were more likely to earn a bachelor's degree and expressed greater satisfaction with their college experience (House, 1998).

3.4 Student-Faculty Interaction in Higher Education

De Borba, Alves, and Campagnolo (2020) delve into the relationship between learning spaces and their impact on student engagement and student-faculty interaction in higher education. Employing a design-driven methodology, the researchers focused on incorporating flexibility, interaction, and connectivity as fundamental elements in classroom design. To test their approach, they created and implemented prototype spaces in 96 classrooms. Subsequently, they conducted a mixed-methods study involving over a thousand students to evaluate the effectiveness and utilization of these redesigned classrooms.

The study's findings, as a result, underscore the significance of physical learning spaces as a crucial factor in promoting student engagement and facilitating active learning interactions between students and professors. Consequently, the article sheds light on the importance of intentional classroom design to foster meaningful engagement and build stronger connections between students and educators in the higher education environment (De Borba, Alves, & Campagnolo, 2020).

In conclusion, De Borba, Alves, and Campagnolo's research contributes valuable insights into the pivotal role of learning spaces in higher education. The study emphasizes the importance of creating flexible and interactive classroom environments that can enhance student engagement and promote more meaningful interactions between students and faculty members. Such findings have the potential to inform future practices in educational institutions and enhance the overall learning experience for students.

3.5 Well-Being and Student–Faculty Interactions in Higher Education

Trolian, Archibald, and Jach (2022) discuss the importance of considering well-being in assessing student experiences and outcomes in higher education. The article highlights the call by the Organisation for Economic Co-operation and Development (OECD) to move beyond market-based measures and incorporate well-being as a key aspect of societal progress. To understand the positive impact of student-faculty interactions, this study utilizes longitudinal data from the Wabash National Study of Liberal Arts Education to examine the relationship between five measures of interactions with faculty and students' psychological well-being at the end of their fourth year in college or university in the United States.

The research findings, consequently, indicate that several measures of student-faculty interaction are positively associated with fourth-year well-being. Specifically, the frequency and perceived quality of these interactions play a significant role in contributing to students' well-being gains over their four years in higher education. Consequently, this highlights the importance of student-faculty interactions in enhancing students' overall well-being. Furthermore, the study emphasizes the need for faculty and administrators to consider how to prioritize faculty members' time to foster meaningful and positive interactions that benefit students' well-being (Trolian, Archibald, & Jach, 2022).

In conclusion, Trolian, Archibald, and Jach's research adds valuable insights into the role of student-faculty interactions in higher education. The study underscores the significance of considering students' well-being as an integral aspect of their overall college experience. Consequently, these findings can inform educational institutions on the importance of nurturing positive and meaningful interactions between students and faculty members to promote students' psychological well-being and overall academic success.

4. Methodology

Research Design

This research study utilized a quantitative research design. This study aimed to determine the influence active learning strategies, student-faculty interaction, quality of instruction and overall college experience, internet and campus technology and student engagement in school, which will be the basis for planning and implementing intervention programs among the programs in DOrSU-San Isidro Campus to help students increase their engagement and academic performance. Furthermore, this study utilized a descriptive correlational design that investigated the interrelationship among active learning strategies, student-faculty interaction, quality of instruction and overall college experience, internet and campus technology and student engagement in school. To analyze the influence of these variables, the study utilized multiple regression analysis. This statistical technique was employed to identify and quantify the significant contributions of each independent variable to the levels of academic and non-academic engagement among students. Regression analysis allowed for a comprehensive understanding of how individual factors, as well as their combined effects, impact student engagement. By employing this robust analytical method, the study ensures a more precise and evidence-based examination of the relationships, offering valuable insights into the determinants of effective engagement strategies. This methodological approach underscores the study's commitment to a rigorous and data-driven evaluation of the factors

4.1 Respondents and Sampling

The respondents of this study were the students of Davao Oriental State University-San Isidro Campus (DOrSU-SIC) particularly in the Bachelor of Science in Business Administration major in Financial Management, BS in Criminology, and BS in Agriculture major

in Crop Science and Bachelor in Agricultural Technology who are currently enrolled for the School Year 2022-2023. The study included 204 students from the DOrSU-SIC as suggested by Kline (1998) that in path analysis, sample size should 20 times the number of parameters included in the study. Hence, the sample size of the study is adequate and appropriate for path analysis.

4.2 Research Instrument

The research instrument used by the researcher is an adopted and modified survey questionnaire. These survey questionnaires were contextualized as to the concerned subject of the study.
Scores in the results of the survey will be interpreted using a 5-point scale.

Mean	Interval Scale	Qualitative Description	Descriptive interpretation
4.50-5.00	5	Always	Very High Level
3.50-4.49	4	Often	High Level
2.50-3.49	3	Occasionally	Moderate Level
1.50-2.49	2	Seldom	Low Level
1.00-1.49	1	Never	Very Low Level

4.3 Statistical Treatment

The data were statistically analyzed to provide answers to the research questions. Mean was used to analyze active learning strategies, student-faculty interaction, quality of instruction and overall college experience, internet and campus technology and student engagement in school. Moreover, the Pearson product-moment correlation was used to investigate the relationship between the variables. Furthermore, the Multiple Regression analysis was employed to measure the influence of active learning strategies, student-faculty interaction, quality of instruction and overall college experience, internet and campus technology on student engagement in school.

4.4 Limitations of the Study

The sample size of 204 students, while statistically adequate for path analysis, is limited to specific programs within a single campus. This constraint may affect the generalizability of the findings to other programs, campuses, or universities with different contexts or demographics. Additionally, the study does not address potential biases in respondent selection, which could skew the results.

5. Results and Discussion

5.1 Level of Active Learning Strategies (ALS)

Table 1 shows the level of Active Learning Strategies (ALS) of students in DOrSU-San Isidro Campus. The results revealed that the overall mean is 3.93 which is described as high level. This means that students from DOrSU-San Isidro Campus often exhibit active learning strategies.

In particular, the students exhibited highest level in *I work independently with projects* and lowest in *I usually go to my professors house to ask anything about our lessons*.

Table 1. Level of Active Learning Strategies (ALS)

Active Learning Strategies (ALS)	Mean	SD	Description
I work independently with my projects	4.343	.769	High Level
I am taking up an interdisciplinary course	4.152	.789	High Level
I discuss course content with my classmates	4.225	.793	High Level
I usually go to my professor's house to ask anything about our lessons	2.765	1.50	Moderate level
I perform more than expected in class	3.917	.853	High Level
I like studying with my classmates	4.176	.909	High Level
Category Mean	***3.93***	***.634***	High Level

To promote active learning, it is essential to create opportunities for students to work independently on meaningful projects that address real-world issues (Vale & Barbosa, 2023). This approach can be further enriched by integrating project-based learning and case studies into the curriculum (Wright et al., 2017). Peer collaboration should also be encouraged through group discussions, study groups, and interdisciplinary activities (Mattanah et al., 2024), enabling students to benefit from diverse perspectives. Faculty accessibility can be improved through scheduled office hours, virtual consultations, or mentorship programs (Ryan & Deci, 2022).

These measures will foster a more interactive and supportive learning environment. Potential obstacles such as students feeling overwhelmed by project demands can be mitigated by breaking projects into smaller tasks and providing periodic feedback. Moreover, challenges in coordinating peer collaboration can be addressed using online collaborative platforms like Google Workspace or Microsoft Teams (DeLozier & Rhodes, 2016).

5.2 Level of Student-Faculty Interaction (SFI)

Table 2 shows the level of student-faculty interaction (SFI) in DOrSU-San Isidro Campus. The results revealed that the overall mean is 4.339 which is described as high level. This means that students from DOrSU-San Isidro Campus often exhibit high level of student-faculty interaction.

In particular, the students exhibited highest level in *There is mutual respect between me and my professors* and lowest in *Letter of Recommendation*.

Table 2. Level of Student-Faculty Interaction (SFI)

Level of Student-Faculty Interaction (SFI)	Mean	SD	Description
My teachers encourage me to pursue master's degree	4.049	1.059	High Level
My professors give me academic advices	4.520	.7120	Very High Level
There is mutual respect between me and my professors	4.603	.6978	Very High Level
My professors give me emotional encouragement	4.348	.8073	High Level
Letter of Recommendation	4.025	.8621	High Level
Help in Achieving Professional Goals	4.485	.7908	High Level
Category Mean	4.339	.623	High Level

Building strong student-faculty relationships is crucial for enhancing academic success and emotional well-being (Zhang, 2018). Faculty development programs focusing on mentoring and effective communication can help foster mutual respect and encouragement (Bardorfer, 2024). Regular academic advising sessions, both formal and informal, can address students' academic and emotional needs, leading to greater satisfaction and retention (Kim & Sax, 2017). Recognizing faculty members who excel in engaging with students can serve as an incentive for others to prioritize interaction (Ryan & Deci, 2022). Integrating interactions into existing academic structures, such as advisory groups or capstone project supervision, can ensure meaningful engagement (Estepp et al., 2012). Student reluctance to approach faculty can be alleviated by conducting orientation sessions that highlight the benefits of such interactions (Zhang, 2018).

5.3 Level of Quality of Instruction and Overall College Experience (QICE)

Table 3 shows the level of quality of instruction and overall college experience (QICE) in DOrSU-San Isidro Campus. The results revealed that the overall mean is 4.74 which is described as very high level. This means that students from DOrSU-San Isidro Campus always exhibit quality instruction and overall college experience.

In particular, the students exhibited highest level in *Satisfaction with courses in your major field* and lowest in *Class size is amenable.*

Table 3. Level of Quality of Instruction and Overall College Experience (QICE)

Level of Student-Faculty Interaction (SFI)	Mean	SD	Description
Satisfaction with courses in your major field	4.402	.7973	High Level
Satisfaction with relevance of course work to everyday life	4.319	.7698	High Level
Overall quality of instruction is amenable	4.255	.7386	High Level
Satisfaction with amount of contact with faculty	4.176	.7804	High Level
Class size is amenable	4.108	.7991	High Level
Satisfaction with overall college experience	4.382	.7884	High Level
Category Mean	4.274	.6632	High Level

Maintaining high-quality instruction and an enriching college experience requires regular curriculum reviews to ensure alignment with industry trends and student interests. This can be achieved by incorporating experiential learning opportunities, such as internships and community projects, into the curriculum (Zhang, 2018). Optimizing class sizes is another strategy to encourage participation and personalized instruction (DeLozier & Rhodes, 2016). Regular feedback mechanisms should be implemented to gather insights on teaching methodologies and overall college services, enabling continuous improvement (Kim & Sax, 2017). Resistance to curriculum changes can be addressed through workshops that emphasize the importance of innovation (Ryan & Deci, 2022). Resource limitations for smaller class sizes can be mitigated by employing teaching assistants or adopting blended learning models (Freeman et al., 2014).

5.4 Level of Internet and Campus Technology

Table 4 shows the level of Internet and Campus Technology (ICT) in DOrSU-San Isidro Campus. The results revealed that the overall mean is 3.725 which is described as high level. This means that students from DOrSU-San Isidro Campus often exhibit high level of internet and campus technology.

In particular, the students exhibited highest level in *Participate in class discussions via email Internet* and lowest in *Use the Internet for non-academic reasons.*

Table 4. Level of Internet and Campus Technology (ICT)

Level of Student-Faculty Interaction (SFI)	Mean	SD	Description
Communicate via email with faculty	3.863	.9880	High Level
Communicate via email with students at this college	3.882	1.030	High Level
Communicate via email with students at other colleges	3.794	1.030	High Level
Communicate via email with your family	3.485	1.234	Moderate Level
Participate in class discussions via email Internet	3.985	.939	High Level
Use the Internet for non-academic reasons	3.338	1.282	Moderate Level
Category Mean	3.725	.8494	High Level

Upgrading campus technology infrastructure is vital to supporting online and blended learning (Carr et al., 2015). Investments in high-speed internet, modern computer labs, and cutting-edge educational technologies should be prioritized (Anderson & Carta-Falsa, 2002). Additionally, offering digital literacy training for students and faculty will ensure effective use of these resources (Ryan & Deci, 2022). Encouraging the integration of virtual classrooms, online forums, and email-based discussions into coursework can further enhance engagement (Vale & Barbosa, 2023). Budget constraints for technology upgrades can be addressed by seeking funding through government programs or private partnerships (Zhang, 2018). Ensuring equal access to technology among students is also critical; this can be achieved through device loan programs and making campus facilities accessible to all (Wright et al., 2017).

5.5 Level of Students' Academic and Non-Academic Engagement

Table 5 shows the level of students' academic and non-academic engagement in DOrSU-San Isidro Campus. The results revealed that the overall mean is 4.214 which is described as high level. This means that students from DOrSU-San Isidro Campus often exhibit high level academic and non-academic engagement.

In particular, the students exhibited highest level in *Affective liking for School* and lowest in *Behavioral Engagement-Extra Curricular*.

Table 6. Students' Academic and Non-Academic Engagement

Affective Liking for Learning	Mean	SD	Description
I am very interested in learning	4.627	.7078	Very High Level
I think what we are learning in school is interesting	4.574	.6944	Very High Level
I like what I am learning in school	4.574	.7812	Very High Level
I enjoy learning new things in class	4.632	.6998	Very High Level
I think learning is boring	2.328	1.569	Low Level
Category Mean	4.147	.5561	High Level
Affective Liking for School			
I like my school	4.623	.7426	Very High Level
I am proud to be at this school	4.691	.6567	Very High Level
Most mornings I look forward to going to school	4.422	.7353	High Level
I am happy to be at this school	4.574	.6944	Very High Level
Category Mean	4.5772	.6011	Very High Level
Behavioral Engagement-Effort and Persistence			
I try hard to do well in school	4.525	.6908	Very High Level
In class I work as hard as I can	4.525	.6691	Very High Level
When Im in class I participate in class activities	4.417	.7414	High Level
I pay attention in class	4.490	.7656	High Level
When Im in class I just act like Im working	3.701	1.2373	High Level
In school I do just enough to get by	3.873	.9843	High Level

When Im in class my mind wanders	3.436	1.1915	Moderate Level
If I have trouble understanding a problem, I go over it again until I understand it	4.250	.8371	High Level
When I run into a difficult homework problem, I keep working at it until I think I've solved it	4.338	.7417	High Level
Category Mean	4.173	.587	High Level
Behavioral Engagement-Extracurricular			
I am an active participant of school activities such as sport day and school picnic	3.799	1.1203	High Level
I volunteer to help with school activities such as sport day and parent day.	3.922	1.0141	High Level
I take an active role in extracurricular activities in my school.	3.848	1.0417	High Level
Category Mean	3.856	.956	High Level
Cognitive Engagement			
When I study, I try to understand the material better by relating it to things I already know	4.260	.7402	High Level
When I study, I figure out how the information might be useful in the real world.	4.407	.6992	High Level
When learning new information, I try to put the ideas in my own words	4.343	.7088	High Level
When I study, I try to connect what I am learning with my own experiences.	4.412	.7540	High Level
I make up my own examples to help me understand the important concepts I learn from school	4.402	.7055	High Level
When learning things for school, I try to see how they fit together with other things I already know	4.279	.7659	High Level
When learning things for school, I often try to associate them with what I learnt in other classes about the same or similar things	4.206	.7204	High Level
I try to see the similarities and differences between things I am learning for school and things I know already	4.397	.6540	High Level
I try to understand how the things I learn in school fit together with each other.	4.324	.7248	High Level
I try to match what I already know with things I am trying to learn for school.	4.333	.7065	High Level
I try to think through topics and decide what I'm supposed to learn from them, rather than studying topics by just reading them over	4.186	.7524	High Level
When studying, I try to combine different pieces of information from course material in new ways	4.240	.7728	High Level
Category Mean	4.316	.588	High Level
Overall Mean	4.214	.527	High Level

Promoting holistic development among students involves encouraging active participation in extracurricular activities such as student organizations, sports, and cultural events (Zhang, 2018). Cognitive engagement can be improved by incorporating reflective practices like journaling and problem-based learning, which help students connect academic content to real-life contexts (Halverson & Graham, 2019). Behavioral engagement strategies may include gamified learning experiences and rewards for consistent class participation (McLeod, 2024). To address low interest in extracurricular activities, institutions can survey students to identify their preferences and tailor programs accordingly (Ryan & Deci, 2022). Scheduling activities during less demanding academic periods and offering time management workshops can help students balance their academic and non-academic commitments (Kim & Sax, 2017).

5.6 Active Learning Strategies (ALS), Student-Faculty Interaction (SFI), Quality of Instruction and Overall College Experience (QICE), Information and Campus Technology (ICT), and Students' Academic and Non-Academic Engagement

The data in Table 6 shows the correlation of active learning strategies, student-faculty interaction, quality instruction and overall college experience and students' academic and non-academic engagement. It can be gleaned from the results that active learning strategies is significantly related to students' academic and non-academic engagement as reflected by the p-value that is less than 0.05 and a positive correlation coefficient, r=.557. This implies that high level of active learning strategies would likely increase students' academic and non-academic achievement. This is also seen in the study conducted by Munna and Kalam (2021) who argued that engaging learning activities increase students' engagement, which in turn increases their academic performance. They exclaimed that student engagement plays a critical role in higher education as this ensures academic success. Thus, providing students with active teaching-learning strategies such as game-based learning, collaborative learning, or peer learning is important. Similarly, Wong (2022) argued that active learning positively increase student engagement, which also promotes a deeper understanding of the concepts being learned.

Additionally, student-faculty interaction is significantly correlated to students' academic and non-academic engagement with a p-value that is less that 0.05 and a positive correlation coefficient, r=.696. This implies that high level of student-faculty interaction would most likely increase students' academic and non-academic engagement. Similarly, the results of this study conformed to the findings of De Borba, Alves, and Campagnolo (2020) who delved into the relationship between learning spaces and their impact on student engagement and student-faculty interaction in higher education. They further argued the significance of maintaining conducive physical learning spaces as it is a crucial factor in promoting student engagement and facilitating active learning interactions between students and professors. Consequently, they shed light on the importance of intentional classroom design to foster meaningful engagement and build stronger connections between students and educators in the higher education environment.

Moreover, results show that quality of instruction and overall college experience is significantly correlated to students' academic and non-academic engagement with a p-value of less than 0.05 and a positive correlation coefficient, r=.728. Likewise, Virtanen et al. (2013) revealed that classroom quality specifically emotional, organizational and instructional supports are correlated with student engagement. They further argued that the more accepting, organized and exceptional instructional activities are used, the more students get involved in doing the activities in school.
Furthermore, results show that information and campus technology is significantly related to students' academic and non-academic engagement with a p-value of less than 0.05 and a positive correlation coefficient, r=0.612. This is also seen in the study of Oureshi et al. (2021) who argued the importance of recognizing the significant contribution of teachers in promoting the use of ICT. They argued that instructors' perspectives and support for digital information usage have a substantial impact to academic success of students. Specifically, the emphasis placed on the digital realm of information for academic purposes is significantly influenced by the roles and views of teachers (Siddiq et al., 2016; Qureshi et al., 2021).

The findings highlight the significant relationship between active learning strategies, student-faculty interaction, quality instruction, overall college experience, and campus technology in influencing students' academic and non-academic engagement. To effectively implement these educational practices, institutions must adopt structured strategies while addressing potential challenges that may hinder their success. Enhancing active learning strategies requires integrating game-based learning, collaborative learning, and peer learning into the curriculum. These approaches, such as debates, problem-based learning exercises, and real-world case studies, encourage student engagement and deeper understanding of course materials (Munna & Kalam, 2021). Additionally, flipped classrooms—where students review materials before class and engage in discussions during sessions—have been shown to increase student participation and comprehension (Baig & Yadegaridehkordi, 2023). However, faculty resistance to shifting away from traditional lecture-based teaching can be a challenge. To address this, institutions should provide professional development workshops and incentives for instructors who incorporate active learning methods. Moreover, students unfamiliar with active learning may struggle with transitioning from passive to participatory learning. Gradually introducing these strategies with proper scaffolding can help ease this adjustment. Strengthening student-faculty interaction is essential for fostering meaningful academic relationships. Encouraging mentorship programs, open-door policies, and faculty-led extracurricular activities can enhance engagement and create a more supportive learning environment (De Borba et al., 2019). Structured office hours, mentorship programs, and digital tools such as learning management systems enhance student-faculty interaction, fostering both academic and non-academic engagement. However, faculty workload constraints necessitate structured advising schedules and informal engagement opportunities to ensure consistent interaction. Broadening faculty development programs beyond traditional skill acquisition through a competency-based framework that incorporates experiential learning, mentorship, and reflective practices can strengthen teaching effectiveness. Additionally, focusing on long-term professional identity formation through networking, peer collaboration, and continuous feedback fosters career growth and institutional

commitment. Moving from a knowledge-transfer model to a holistic identity-building approach ensures a more engaged faculty, ultimately improving student engagement and academic success (Kohan et al., 2023). On the other hand, it is argued that students who utilized digital tools for collaborative learning exhibited notable increases in engagement, critical thinking, and peer interaction. The study highlights that incorporating technology into classroom activities strengthens collaborative learning, making educational experiences more interactive and effective. In the context of the study Factors Influencing Students' Academic and Non-Academic Engagement, the integration of digital tools plays a crucial role in enhancing both academic participation and social engagement. By leveraging digital platforms, students can engage in meaningful discussions, collaborate efficiently, and develop higher-order thinking skills, ultimately improving their overall educational experience (Oskarita & Arasy, 2024). Providing campus-wide high-speed internet and digital resources is crucial for effective technology integration, yet the digital divide remains a challenge. Institutions can bridge this gap through device loan programs, improved campus facilities, and faculty training to enhance digital proficiency. Regular support and structured initiatives can foster a more inclusive learning environment, ultimately boosting student engagement, performance, and retention.

Table 6. ***Active Learning Strategies (ALS), Student-Faculty Interaction (SFI), Quality of Instruction and Overall College Experience (QICE, Information and Campus Technology (ICT) and Students' Academic and Non-Academic Engagement***

Independent Variables	Students' Academic and Non-Academic Engagement		
	R	P Value	Remarks
Active Learning Strategies	.557**	.000	Significant
Student-Faculty Interaction	.696**	.000	Significant
Quality of Instruction and Overall College Experience	.728**	.000	Significant
Information and Campus Technology	.612**	.000	Significant

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

5.7 Influence of Active Learning Strategies, Student-Faculty Interaction, Quality of Instruction and Overall College Experience, Information and Campus Technology and Students' Academic and Non-Academic Engagement

Table 6 presents the results of regression analysis whose purpose is to show the significant predictors of students' academic and non-academic engagement. The results indicate that student-faculty interaction, quality of instruction and overall college experience, and information and campus technology are significant predictors of students' academic and non-academic engagement with a p-value of less than 0.05. On the other hand, active learning strategies is found to be an insignificant predictor of students' academic and non-academic engagement. Lastly, the findings were apparent in the regression analysis results, where 63.9 percent of the variance of students' academic and non-academic engagement is explained by the three independent variables as indicated by R^2=.639. This means that 36.1 percent of the variation can be attributed to other factors aside from the three independent variables included in the study.

Table 6: Influence of ***Active Learning Strategies, Student-Faculty Interaction, Quality of Instruction and Overall College Experience, Information and Campus Technology and Students' Academic and Non-Academic Engagement***

Independent Variables	Unstandardized Coefficients	Standardized Coefficients	t	P-value	Remarks
	B	*Beta*			
Active Learning Strategies	.036	.044	.753	.452	Not Significant
Student-Faculty Interaction	.218	.257	3.618	.000	Significant
Quality of Instruction and Overall College Experience	.284	.357	5.046	.000	Significant
Information and Campus Technology	.178	.287	5.401	.000	Significant

Note: R=.799[a] , R^2=.639 , F-Ratio=0.02 , P Value=.000[b]

Based on the findings, there is a need to consider a good and harmonious relationship between teachers and students. Trolian, Archibald, and Jach (2022) discuss the importance of considering well-being in assessing student experiences and outcomes in higher education. The article highlights the call by the Organization for Economic Co-operation and Development (OECD) to move beyond market-based measures and incorporate well-being as a key aspect of societal progress. To understand the positive impact

of student-faculty interactions, this study utilizes longitudinal data from the Wabash National Study of Liberal Arts Education to examine the relationship between five measures of interactions with faculty and students' psychological well-being at the end of their fourth year in college or university in the United States.
The research findings, consequently, indicate that several measures of student-faculty interaction are positively associated with fourth-year well-being. Specifically, the frequency and perceived quality of these interactions play a significant role in contributing to students' well-being gains over their four years in higher education. Consequently, this highlights the importance of student-faculty interactions in enhancing students' overall well-being. Furthermore, the study emphasizes the need for faculty and administrators to consider how to prioritize faculty members' time to foster meaningful and positive interactions that benefit students' well-being (Trolian, Archibald, & Jach, 2022).

Moreover, quality instruction and overall college experience is likewise important to increase student engagement. In fact, it is argued that teachers are required to offer quality instruction among students making the environment more accepting and conducive for learning (Virtanen et al., 2013). Conversely, it is argued that teachers need to ensure the use of engaging classroom strategies to make learners more engaged in the learning process. This can be done by maximizing classroom opportunities where students could navigate and participate actively in the classroom (Guo et al., 2011).

6. Conclusion

This study's objective is to examine the influence of active learning strategies, student-faculty interaction, quality of instruction and overall college experience, information and campus technology on students' academic and non-academic engagement. The results suggest that teachers should consider to use teaching-learning strategies that are more engaging. These strategies ensure increased level of learning and acquisition of knowledge. On the other hand, it is concluded that student and teacher interaction make learning more accepting and conducive as the key players of teaching and learning create an active interplay of respect for each other. Conversely, providing an accepting classroom environment, varied and quality teaching strategies is necessary as it increases engagement among students. Consequently, the ability to access digital information is considered foundational for continuous learning. As a result, teachers who focus on fostering students' digital information and communication skills are greatly influenced by their own literacy abilities. Moreover, the level of competency in applying digital information and communication skills is determined by the types of technologies used to achieve various educational goals, such as accessing, evaluating, exchanging, and communicating digital information.

Furthermore, it is recommended that this may be a basis for another research in the future especially on conducting a path analysis on student engagement, which could determine the best fit model for student engagement. This will help administrators and teachers to develop instructional plans to effectively increase students' engagement and eventually, their academic performance.

To effectively implement the educational practices identified in the study, several key strategies should be employed. First, to foster active learning, teachers can incorporate methods such as problem-based learning, collaborative work, case studies, flipped classrooms, and gamification. These strategies shift the focus to student-centered learning, where students are more actively engaged in their education. However, challenges such as insufficient teacher training and student resistance to unfamiliar methods might arise. To address this, faculty development programs should be implemented to equip teachers with the skills to apply active learning methods. Additionally, gradual integration and offering incentives for participation can help ease students into these new approaches.

In terms of student-faculty interaction, building stronger relationships between teachers and students is crucial for an engaging learning environment. Teachers should prioritize availability through office hours, personalized feedback, and mentorship, while also encouraging student involvement in discussions and group activities. The challenge here lies in the constraints of large class sizes and time management. A practical solution is to use digital communication platforms such as learning management systems or discussion boards, which provide flexibility for both students and teachers. These can supplement face-to-face interactions and promote a more accessible connection.
Quality of instruction and creating an inclusive classroom environment are also essential to enhancing student engagement. Teachers should diversify their teaching methods, such as blending lectures with multimedia and incorporating real-world applications, to cater to various learning styles. While implementing these methods can be time-consuming, using differentiated instruction and continuously gathering student feedback can help tailor the teaching approach to ensure effectiveness. Moreover, fostering a respectful and inclusive classroom culture encourages active participation and engagement.

Digital literacy is foundational to continuous learning, and teachers should integrate digital information and communication skills into their teaching practices. This includes guiding students in how to effectively access, evaluate, and apply digital resources for academic purposes. However, limitations in access to technology and varying levels of digital literacy among both students and faculty may present obstacles. To overcome this, institutions can invest in technology infrastructure and provide workshops or

online tutorials to enhance digital skills for everyone involved. Additionally, ensuring equitable access to digital tools, such as through computer labs or device distribution, can support this initiative.

The integration of cutting-edge technologies such as artificial intelligence (AI), virtual reality (VR), and augmented reality (AR) can significantly enhance active learning experiences. AI has the potential to personalize learning by adapting content based on individual student performance, while VR and AR can provide immersive learning environments that offer real-world applications of academic concepts. However, the costs and the resistance to adopting these new technologies can be challenging. Pilot programs and collaborations with technology partners can help mitigate financial constraints, and offering faculty training on these tools can ensure effective implementation.

Finally, future research should focus on further investigating the factors that drive student engagement, especially through path analysis models. This type of research can identify the most influential elements in student engagement and inform the development of more effective instructional strategies. The main challenges here include access to comprehensive data and controlling external variables. However, partnerships between universities and research institutions can help provide the necessary resources for large-scale studies. Designing research frameworks that account for diverse student demographics will also enhance the reliability and applicability of the findings.

In conclusion, by strategically adopting active learning strategies, strengthening student-faculty interaction, diversifying teaching methods, and fostering digital literacy, educational institutions can significantly increase student engagement. The integration of advanced technologies and ongoing research will contribute to continuous improvements in teaching practices, ultimately enhancing both academic and non-academic student experiences.

Funding: This research received no external funding.
Conflicts of Interest: The authors declare no conflict of interest.
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