



Factors Affecting Student Engagement in Universities of Kathmandu Valley

Aastha Shrestha and Radhe Shyam Pradhan, Ph.D.*

Abstract

This study examines the factors affecting student engagement in universities of Kathmandu valley. Student engagement is the dependable variable. The independent variables are curriculum design, extra-curricular activities, teaching methods, use of technology, class environment, student teacher relationship and absenteeism. The primary source of data is used to assess the opinions of the respondents regarding the factors affecting student engagement in universities of Kathmandu valley. The study is based on primary data of 240 respondents. To achieve the purpose of the study, structured questionnaire is prepared. The correlation coefficients and regression models are estimated to test the different factors affecting student engagement in universities of Kathmandu valley.

The result shows that curriculum design has a positive impact on student engagement indicating that curriculum design leads to increase student engagement in universities. Likewise, extracurricular activities have a positive impact on student engagement. It shows that extracurricular activities in universities increase the level of student engagement. Similarly, teaching methods has a positive impact on student engagement. It implies that better the methods of teaching, higher will be the engagement of student in universities. Further, use of technology has a positive impact on student engagement in universities. It indicates that use of technology increases the level of student engagement. Likewise, class environment has a positive impact on student engagement. It states that collaborative and respectful class environment leads to increase in the level of student engagement. Similarly, student teacher relationship has a positive impact on student engagement. It implies that positive student teacher relationship leads to increase in student engagement. Further, absenteeism has a negative impact on student engagement in universities. It indicates that less absenteeism increases the level of student engagement.

Keywords: student engagement, curriculum design, extracurricular activities, teaching methods, use of technology, class environment, student-teacher relationship, absenteeism

1. Introduction

Student engagement, irrespective of the specificity of its definition, is generally associated positively with desired academic, social, and emotional learning outcomes (Klem& Connell, 2004). Student engagement refers to the level of interest, motivation, and involvement that students demonstrate in their learning experiences. Engaged students are actively participating in their education, both inside and outside the classroom. Similarly, Chang *et al.* (2016) defined student engagement as the degree to which students are engaged in learning in the formal education process and refers to the time, effort, and energy they commit to educational learning tasks.

Garcia and Pintrich (1996) defined student engagement as the degree to which students actively participate in their learning tasks, exert effort, and exhibit persistence in achieving academic goals. Similarly, Gunuc and Kuzu (2014) defined student engagement

* Ms. Shrestha is a Freelance Researcher, Kathmandu, Nepal and Prof. Pradhan is the Academic Director, Uniglobe College (Pokhara University affiliate), Kathmandu, Nepal.

as the quality and quantity of students' psychological, cognitive, emotional and behavioral reactions to the learning process as well as to in-class/out-of-class academic and social activities to achieve successful learning outcomes.

Zepke and Leach (2010) concluded that the way in which students engage with their studies and what they, their institutions, and their educators can do to improve the engagement has been a well-researched area since the 1990's. Similarly, Kahu (2013) discussed student engagement as the quality of effort and involvement students bring to their learning experiences, both inside and outside the classroom. Likewise, Marks (2000) discussed student engagement as the degree of attention, interest, and passion that students show when they are learning or being taught, which correlates with positive educational outcomes. Further, Finn and Rock (1997) defined that engagement refers to the extent to which students identify with and value schooling outcomes, and participate in academic and non-academic school activities. The study also discussed that definition usually comprises a psychological component pertaining to students' sense of belonging at school and acceptance of school values, and a behavioral component pertaining to participation in school activities.

Johnson (2008) defined that student engagement is an integral component of learning and has been the focus of a number of recent research studies. Teachers must become knowledgeable about their students' cultural backgrounds so they can translate that knowledge into effective instruction, create a culturally responsive classroom, build relationships with the students, engage students in the learning process, and improve academic performance (Gay, 2000). According to Fredricks *et al.* (2004), a student's overall level of engagement depends on the extent to which he or she is engaged in these three areas: behavioral, emotional, and cognitive.

Jimerson *et al.* (2003) defined student engagement as the extent to which students are psychologically committed to learning and mastering academic tasks. Similarly, Skinner *et al.* (2009) conceptualized student engagement as the behavioral and emotional investment in academic tasks and learning processes. Likewise, Connell and Wellborn (1991) defined engagement as the extent to which students are motivated to learn and participate in schooling. Similarly, Freeman *et al.* (2014) revealed active learning with traditional lecture-based teaching methods, emphasizing that active learning promotes higher levels of student engagement by involving them in meaningful interactions with the material, peers, and instructors.

Zuo (1999) investigated the scope, process, and effects of student participation in university governance, including student government. The study found that student associations as organized forces had much greater influence than did students at large. The study also found that personal factors affected the impact of student participation in university governance. Likewise, Kurt *et al.* (2021) investigated on the effect of different teaching methods on students' engagement and scientific process skills. The study found statistical difference determined in the engagement levels and scientific process skills of students studying in different groups. Similarly, Kuzu *et al.* (2014) determined both the factors influencing student engagement and the role and influence of technology on student engagement. The study found that for most of the participating students, use of technology in class was not an indispensable factor for student engagement. Similarly, among various student-related issues, the most ignored one is extra-curricular activities (ECAs) and with

enhancing the physical and mental abilities of students, extra-curricular activities provide multiple benefits to the concerning educational institutions including, student motivation and student engagement (Gunuc and Kuzu, 2015).

Gulek and Demirtas (2005) provided substantial evidence that using technology enhances student learning and educational outcomes. The study revealed that compared to nontechnology users, students using technology showed significantly higher achievement (overall GPA) and high scores on criterion referenced standardized tests. Similarly, Trimmel and Bachmann (2004) found that students who used technology in classrooms reported higher participation rates, more interest in learning, and a greater motivation to perform well as compared to the students who did not use technology. Likewise, Drain *et al.* (2012) concluded on high school students that intelligent use of electronic devices improves academic performance measured via GPA & standardized test scores and the results specifically showed that students who reported spending more time using their electronic devices for academic purposes did better in school than those who claimed they used their devices for other purposes.

Qureshi *et al.* (2023) examined the factors affecting student learning performance through collaborative learning and engagement. This study concluded that overall collaborative learning and engagement with influence of social factors improve activities of students learning and their usage should be stimulated in teaching and learning in higher educational institutions as it influences students' academic development. Similarly, Ansong *et al.* (2017) found that shift from the traditional teacher-centered, hierarchical system to a more dynamic student-centered system fosters student engagement.

Sokeman (2021) investigated middle school students' behavioral, emotional, cognitive, and agented engagement in science in relation to self-efficacy and learning environment variables. The study showed that self-efficacy and teacher feedback were positive predictors for all aspects of student engagement while shared control predicted most of the engagement aspects other than emotional engagement. The study also found that promoting mutual respect was positively linked to behavioral engagement whereas student negotiation was not related to any of the engagement components. Likewise, Schwartz and Bransford (1998) showed that students not only engage in the lesson and demonstrate new learning but also increase their levels of subjective well-being by means of the teaching method. Similarly, well-organized and structured classrooms, where expectations are clear, routines are established, and resources are readily accessible, promote higher levels of student engagement (Jones *et al.*, 2013).

In the context of Nepal, Upadhayaya *et al.* (2021) showed that there was no significant difference in the views across the variables gender, ethnicity, school type, and device use in all other criteria. The study showed that participants' hometown location made a big difference in their perception of online and distance classes' quality. Similarly, Bidari (2021) concluded that specific strategies such as interactive quizzes and peer-to-peer discussions significantly increased student engagement in online classrooms in Nepal. Likewise, Devkota *et al.* (2020) raised pertinent issues regarding differentiated academic status in Nepali schools by caste and ethnicities. The study revealed persisting low academic performances of the students from the Janajati background as compared to the students from the 'dominant' Brahman and Chhetri caste groups.

Bhattarai *et al.* (2020) found that socioeconomic factors such as household income, parental education level, and access to resources significantly influence school attendance rates. Lower-income households and those with less educated parents may face greater barriers to consistent school attendance. Similarly, Shrestha and Tamrakar (2023) showed that faculty were skeptical about their ability to teach effectively in online and were concerned about maintaining academic standards and integrity in this new mode of teaching. Likewise, Khadka (2020) concluded that the students had a high degree of academic and social relation. The study also concluded that there is significant difference across gender (for social relation), age, class level, school type and internet connectivity for both academic and social relations but it was insignificant across students' residing regions, caste, parents' education and the devices used in the online class.

The above discussion reveals that the empirical evidences vary greatly across the studies concerning the factors that affect student engagement in universities. Though there are above mentioned empirical evidences in the context of other countries and in Nepal, no such findings using more recent data exist in the context of Nepal. Therefore, in order to support one view or the other, this study has been conducted.

The main purpose of the study is to analyze the factors that affect student engagement in universities of Kathmandu valley. Specifically, it examines the effect of curriculum design, extra-curricular activities, teaching methods, use of technology, class environment, student-teacher relationship and absenteeism on student engagement in the universities of Kathmandu valley.

The remainder of this study is organized as follows. Section two describes the sample, data and methodology. Section three presents the empirical results and the final section draws the conclusion.

2. Methodological aspects

The study is based on the primary data. The data were gathered from 240 respondents through questionnaire. The respondents' views were collected on extra-curricular activities, curriculum design, teaching methods, use of technology, classroom environment, student teacher relationship, absenteeism and student engagement. This study is based on descriptive as well as casual comparative research designs.

The model

The model used in this study assumes that student engagement depends on extra-curricular activities, curriculum design, teaching methods, use of technology, classroom environment, student teacher relationship and absenteeism. The dependent variable selected for the study is student engagement. Similarly, the independent variables are extra-curricular activities, curriculum design, teaching methods, use of technology, classroom environment, student teacher relationship and absenteeism. Therefore, the model estimated in this study is stated as follows:

$$SE = \beta_0 + \beta_1 CD + \beta_2 ECA + \beta_3 TM + \beta_4 UT + \beta_5 CE + \beta_6 STR + \beta_7 A + e$$

Where,

SE= Student engagement

CD= Curriculum design

ECA= Extracurricular activities

TM= Teaching methods

UT= Use of technology

CE= Classroom environment

STR= Student-teacher relationship

A= Absenteeism

Curriculum design was measured using a 5-point Likert scale where the respondents were asked to indicate the responses using 1 for strongly agree and 5 for strongly disagree. There are 5 items and sample items include “The structure of curriculum positively influences my engagement with course material.”, “The flexibility of curriculum allows me to seek my academic interest, increasing my engagement.” and so on. The reliability of the feature was measured by computing the Cronbach’s alpha ($\alpha = 0.875$).

Extra-curricular activities were measured using a 5-point Likert scale where the respondents were asked to indicate the responses using 1 for strongly agree and 5 for strongly disagree. There are 5 items and sample items include “Engaging in extracurricular activities outside of classroom positively impacts my overall satisfaction with university life.”, “Extracurricular activities contribute to a sense of well-being and fulfillment beyond academic studies.”, and so on. The reliability of the feature was measured by computing the Cronbach’s alpha ($\alpha = 0.907$).

Teaching methods was measured using a 5-point Likert scale where the respondents were asked to indicate the responses using 1 for strongly agree and 5 for strongly disagree. There are 5 items and sample items include “The teaching methods used in my class effectively capture my interest and engagement in learning.”, “The use of real-world examples and applications in teaching method enhances my understanding in course.” and so on. The reliability of the feature was measured by computing the Cronbach’s alpha ($\alpha = 0.922$).

Use of technology was measured using a 5-point Likert scale where the respondents were asked to indicate the responses using 1 for strongly agree and 5 for strongly disagree. There are 5 items and sample items include “The use of digital resources makes course content more engaging and accessible.”, “Interactive online platforms and tools increases my participation and engagement in the course.” and so on. The reliability of the feature was measured by computing the Cronbach’s alpha ($\alpha = 0.903$).

Class environment was measured using a 5-point Likert scale where the respondents were asked to indicate the responses using 1 for strongly agree and 5 for strongly disagree. There are 5 items and sample items include “The physical classroom environment (e.g: seating arrangements, lighting) positively impacts my engagement in learning.”, “The use of group activities and discussions in the class promotes my active involvement in learning.” and so on. The reliability of the feature was measured by computing the Cronbach’s alpha ($\alpha = 0.947$).

Student teacher relationship was measured using a 5-point Likert scale where the

respondents were asked to indicate the responses using 1 for strongly agree and 5 for strongly disagree. There are 5 items and sample items include “I feel comfortable approaching my lecturer with questions and concerns about course material.”, “My lecturer effectively communicates course expectations and objectives, which supports my engagement in learning.” and so on. The reliability of the feature was measured by computing the Cronbach’s alpha ($\alpha = 0.912$).

Absenteeism was measured using a 5-point Likert scale where the respondents were asked to indicate the responses using 1 for strongly agree and 5 for strongly disagree. There are 5 items and sample items include “Absenteeism disrupts the continuity of learning and makes it challenging to follow the progression of course material.”, “Missing classes makes it hard for me to stay up to date with the assignments and course requirements.”, and so on. The reliability of the feature was measured by computing the Cronbach’s alpha ($\alpha = 0.915$).

The following section describes the independent variables used in this study along with the hypothesis formulation.

Curriculum design

Curriculum design is a dynamic, emergent and collaborative process of learning for both student and teacher (Fraser and Bosanquet, 2006). Similarly, Schwab (1973) emphasized the importance of viewing curriculum as an ongoing inquiry into what should be taught, how it should be taught, and how student learning can be effectively facilitated. Likewise, curriculum that are relevant to students’ lives and future aspirations tend to foster higher levels of engagement (Smith & Brown, 2017). Similarly, incorporating diverse instructional modalities, including visual aids, multimedia resources, and interactive technology, into curriculum design can cater to varied learning preferences and stimulate higher levels of engagement among students (Jones & Green, 2020). Furthermore, curriculum designs incorporating active learning strategies such as problem-based learning, project-based learning, and peer collaboration promote deeper engagement among students (Johnson *et al.*, 2019). Based on it, this study develops the following hypothesis:

H₁: There is a positive relationship between curriculum design and student engagement.

Extra-curricular Activities

Stuart *et al.* (2011) defined extra-curricular activities as all activities beyond ‘the classroom’, such as involvement in university clubs and societies, paid and voluntary employment, family commitments, religious activity. According to Osman (2011), extra-curricular activities allow students to work in natural settings, and skills gained through practical learning have a more profound impact on students. Likewise, Lau *et al.* (2014) found that students who participate in extra-curricular activities rate their creativity, communication skills, leadership and self-promotion skills higher than their fellow students who do not participate in extra-curricular activities. Similarly, participation in extracurricular activities was associated with higher levels of social integration, which in turn positively influenced student engagement and academic achievement (Garcia *et al.*, 2019). Furthermore, students who participated in extracurricular activities showed higher levels of engagement both inside and outside the classroom compared to those who did not participate (Parker *et al.*, 2018). Based on it, this study develops the following hypothesis:

H₂: There is a positive relationship between extra-curricular activities and student engagement.

Teaching Method

Teaching method is a set of principles and methods used by teachers to enable student learning. Positive teaching practices and method increases not only students' learning and academic achievement but also students' subjective well-being (Loveless, 2006). Similarly, Prince (2004) focused on various active learning strategies and their positive effects on student engagement and learning outcomes, providing insights into effective instructional methods. Furthermore, Johnshon (2014) stated that interactive teaching methods, such as active learning and collaborative learning, promote higher levels of student engagement. Similarly, Kember *et al.* (2008) explored how teaching methods that establish relevance and connect learning to real-world applications can enhance student engagement and motivation. Likewise, Means (2013) concluded that incorporating technology into instruction, such as multimedia presentations, online discussions, and virtual labs, can enhance student engagement by catering to diverse learning styles and interests. Based on it, this study develops the following hypothesis:

H₃: There is a positive relationship between teaching method and student engagement.

Use of technology

The use of classroom response systems such as clickers, were found to be an effective way to promote student engagement in a large enrolment principles of economics course (Salemi, 2009). Similarly, Lee and Hammer (2011) showed the use of educational games and simulations to enhance student engagement by providing immersive and interactive learning experiences that stimulate curiosity and motivation. Likewise, interactive learning platforms, such as online forums, virtual classrooms, and educational apps, have been found to increase student engagement by providing opportunities for active participation and collaboration (Dennen *et al.*, 2008). Furthermore, Kay (2012) concluded that video podcasts enhance engagement by providing visual and auditory explanations that cater to diverse learning styles. Similarly, the flipped classroom model, which involves delivering instructional content online outside of class and using class time for interactive activities, has been associated with increased student engagement (Bergmann, 2012). Further, adaptive learning systems, which personalize instruction based on students' individual learning needs and progress, have shown promise in increasing student engagement (Means *et al.*, 2013). Based on it, this study develops the following hypothesis:

H₄: There is a positive relationship between use of technology and student engagement.

Class environment

Classrooms that are designed to encourage student interaction and facilitate active or team-based collaborative learning by including features such as round tables, movable chairs, student laptop connections for sharing work on overhead projectors and tableside whiteboards (Cotner *et al.*, 2013). Similarly, one method for increasing student engagement in the classroom is to develop learning communities, where students are engaged in educationally purposeful activities inside and outside of the classroom to increase student learning and personal development as well as an indicator of educational effectiveness (Zhao & Kuh, 2004). Likewise, student engagement is increased by the design of the classroom itself

such as architecture and learning spaces (Trowler, 2010). Furthermore, students indicated that they preferred the smaller class environment which was noted to be more intimate and allowed for stronger focus and comprehension of the content (Young *et al.*, 2017). Likewise, Wang (2012) concluded that a positive and inclusive classroom climate, characterized by mutual respect, trust, and emotional safety, has been linked to increased student engagement. Based on it, this study develops the following hypothesis:

H₅: There is a positive relationship between class environment and student engagement.

Student-Teacher Relationship

Student-Teacher relationship is a broad concept that stresses teachers' emotional support, instructional support, classroom safety, emotional closeness, and conflict resolution. Likewise, Dennie (2019) indicated that when students view their relationships with their teachers as pleasant, amicable, and adaptable, they are more engaged in the classroom, hence improving their academic performance. According to Verschueren and Koomen (2017), a conflict-free relationship between teachers and students, would increase student engagement in class and reduce school-related stress. Similarly, Roorda (2011) showed that teacher support and encouragement are positively associated with student engagement. Likewise, trust and respect in student-teacher relationships contribute to higher levels of student engagement (Wang, 2012). Furthermore, Hughes *et al.* (2008) found that higher levels of teacher-student support were positively associated with increased effortful engagement among students. Specifically, when students perceived greater support from their teachers (in terms of emotional support and encouragement), they were more likely to exhibit sustained effort and active participation in learning activities. Emotional support and understanding from teachers contribute to increased student engagement and well-being (Rimm-Kaufman, 2011). Based on it, this study develops the following hypothesis:

H₆: There is a positive relationship between student-teacher relationships.

Absenteeism

Absenteeism is a direct dimension of behavioral disengagement and has been discussed extensively in the context of undergraduate economics education. Mandatory class attendance resulted in improved performance, fostered good work habits, taught responsibly, and improved social skills (Cohn and Johnson, 2006). Similarly, Reid and Fitzpatrick (2016) concluded that chronic absenteeism, discussing how interventions can address underlying factors affecting student engagement and attendance. Furthermore, Teixeira (2016) found that absenteeism considerably lowered students' final grade in macroeconomics units when controlling for potential endogenous factors associated with attendance and academic performance. Based on it, this study develops the following hypothesis:

H₇: There is a negative relationship between absenteeism and student engagement.

3. Results and discussion

Correlation analysis

On analysis of data, correlation analysis has been undertaken first and for this purpose, Kendall's Tau correlation coefficients along with means and standard deviations have been computed, and the results are presented in Table 1.

Table 1:

Kendall's Tau correlation coefficients matrix

This table presents Kendall's Tau correlation coefficients between dependent variable and independent variables. The correlation coefficients are based on 240 observations. The dependent variable is Student Engagement (SE). The independent variables are Curriculum design (CR), Extra-curricular activities (EA), Teaching method (TM), Use of technology (UT), Class environment (CE), Student teacher relationship (STR) and Absenteeism (A).

Variables	Mean	S.D.	SE	CD	EA	TM	UT	CE	STR	A
SE	1.540	0.629	1							
CD	1.478	0.498	0.555**	1						
EA	1.501	0.529	0.583**	0.804**	1					
TM	1.480	0.527	0.554**	0.803**	0.810**	1				
UT	1.552	0.591	0.672**	0.748**	0.809**	0.816**	1			
CE	1.459	0.599	0.586**	0.756**	0.775**	0.816**	0.808**	1		
STR	1.480	0.56	0.619**	0.751**	0.736**	0.798**	0.791**	0.794**	1	
A	1.500	0.556	0.600**	0.775**	0.721**	0.774**	0.780**	0.787**	0.831**	1

Notes: The asterisk signs (**) and (*) indicate that the results are significant at one percent and five percent level respectively.

Table 1 show that curriculum design is positively related to student engagement. It indicates that curriculum design leads to increase in student engagement. Similarly, extra-curricular activities are positively correlated to student engagement. It implies that extra-curricular activities lead to increase in the level of student engagement. Moreover, teaching methods is positively correlated to student engagement. It indicates that better the teaching methods, higher would be the student engagement. Likewise, use of technology has a positive relationship with student engagement. It states that use of technology leads to increase in student engagement. Similarly, class environment is positively correlated to student engagement. It implies that better class environment leads to increase in the level of student engagement. Again, student teacher relationship is positively correlated to student engagement. It implies that student teacher relationship leads to increase in the level of student engagement. Further, the result shows that there is a negative relationship between absenteeism and student engagement. It reveals that an increase in regularity leads to increase in the level of student engagement.

Regression analysis

Having indicated Kendall's Tau correlation coefficients, the regression analysis has been carried out and the results are presented in Table 2. More specifically, it presents the regression results of curriculum design, extra-curricular activities, teaching methods, use of technology, class environment, student-teacher relationship and absenteeism on student engagement in universities of Kathmandu valley.

Table 2

Estimated regression results of curriculum design, extra-curricular activities, teaching methods, use of technology, class environment, student teacher relationship and absenteeism on student engagement in universities of Kathmandu valley

The results are based on 240 observations using linear regression model. The model is $SE = \beta_0 + \beta_1 CD + \beta_2 EA + \beta_3$

$TM + \beta_4 UT + \beta_5 CE + \beta_6 STR + \beta_7 A + \epsilon$, where the dependent variable is Student engagement (SE). The independent variables are Curriculum design (CR), Extra-curricular activities (EA), Teaching method (TM), Use of technology (UT), Class environment (CE), Student teacher relationship (STR) and Absenteeism (A)

Model	Intercept	Regression coefficients of						A	Adj. R_bar ²	SEE	F-value
		CD	EA	TM	UT	CE	STR				
1	0.45 (4.337)**	0.123 (0.906)**							0.337	0.512	122.565
2	0.406 (4.283)**		0.755 (12.680)**						0.401	0.487	160.782
3	0.462 (4.797)**			0.728 (11.863)**					0.369	0.500	140.741
4	0.378 (4.642)**				0.748 (15.266)**				0.493	0.448	233.064
5	0.697 (7.775)**					0.578 (10.168)**			0.3	0.527	103.378
6	0.42 (4.929)**						0.757 (14.064)**		0.452	0.466	197.791
7	0.437 (4.888)**							0.238 (2.059)	0.419	0.480	173.182
8	0.378 (3.787)**	0.123 (0.906)**	0.653 (5.102)**						0.4	0.487	80.74
9	0.372 (3.727)**	0.049 (0.328)**	0.536 (3.380)**	0.196 (1.234) **					0.402	0.487	54.453
10	0.34 (3.396)*	-0.046 (0.336)	0.26 (1.715)**	-0.089 (0.581)**	0.748 (15.266)**				0.493	0.4482	56.577
11	0.343 (3.729)	-0.037 (0.268)	0.266 (1.750)*	-0.062 (0.401)	0.696 (6.490)**	-0.186 (2.156)			0.494	0.448	47.628
12	0.341 (3.857)	-0.169 (-.248)	0.323 (2.208)	-0.316 (1.995)	0.593 (5.622)	-0.186 (2.156)	0.528 4.549		0.533	0.430	46.477
13	0.324 (3.684)	-0.232 (1.679)	0.35 (2.396)	-0.352 (2.222)	0.571 (5.417)	-0.199 (2.313)	0.405 (3.114)	0.238 (2.059)	0.539	0.427	40.998

Note:

- Figures in parenthesis are t-values.
- The asterisk signs (**) and (*) indicate that the results are significant at one percent and five percent level respectively.
- Student engagement is the dependent variable.

Table 2 shows the beta coefficients for curriculum design are positive with attitude towards student engagement. It indicates that curriculum design has a positive impact on attitude of students towards student engagement. This finding is similar to the findings of (Jones & Green, 2020). Likewise, the beta coefficients for extra-curricular activities are positive with attitude towards student engagement. It indicates that students are typically concerned about the extra-curricular activities in the university towards engagement. This finding is consistent with the findings of Stuart *et al.* (2011). Moreover, the beta coefficients for teaching methods are positive with attitude towards student engagement. It indicates that teaching methods has a positive impact on attitude towards student engagement. This finding is similar to the findings of Schwartz and Bransford (1998). Further, the beta coefficients for use of technology are positive with attitude towards student engagement. It indicates that use of technology has a positive impact on attitude towards student engagement. This finding is consistent with the findings of Dennen *et al.* (2008). Likewise, the beta coefficients for class environment are positive with attitude towards student engagement. It indicates that class environment has a positive impact on attitude towards student engagement. This finding is similar to the findings of (Young *et al.*, 2017). Moreover, the beta coefficients for student teacher relationship are positive with attitude towards student engagement. It indicates that student teacher relationship has a positive impact on attitude towards student engagement. This finding is similar to the findings of (Wang, 2012). Further, the beta coefficients for

absenteeism are negative with attitude towards student engagement. It indicates that absenteeism has a negative impact on attitude towards student engagement. This finding is similar to the findings of (Teixeira, 2016).

4. Summary and conclusion

This study provides insightful information regarding the factors affecting student engagement in universities of Kathmandu valley. The study analyzes various significant variables that could impact student engagement in universities. These variables include how curriculum of universities, teachers teaching styles, student relationship with teacher and regularity in universities influence student engagement. Along with extra-curricular activities, use of technology and class environment, also takes consideration on how it influences student engagement.

This study attempts to examine the factors affecting student engagement in universities of Kathmandu valley. The study is based on primary data with 240 observations.

The study showed that curriculum design, extra-curricular activities, teaching methods, use of technology, class environment and student teacher relationship have a positive relationship and absenteeism has negative relationship with student engagement. The study also concluded that class environment, teaching methods, student teacher relationship, absenteeism followed by extra-curricular activities, use of technology and curriculum design are the most influencing factors that explain the factors affecting student engagement in universities of Kathmandu valley.

Reference

- Ansong, D., M. Okumu, G.L. Bowen, A. M. Walker, and S. R. Eisensmith, 2017. The role of parent, classmate, and teacher support in student engagement: Evidence from Ghana. *International Journal of Educational Development* 54(1), 51-58.
- Bergmann, J., and A. Sams, 2012. Flip your classroom: Reach every student in every class every day. *International Society for Technology in Education* 94(2), 25-25.
- Bhattarai, N., A. Bernasek, and A. A. Pena, 2020. Factors affecting school attendance and implications for student achievement by gender in Nepal. *Review of Political Economy* 32(2), 259-282.
- Bidari, S., 2021. Engaging learners in online classrooms: A case study from Nepal. *Journal of World Englishes and Educational Practices* 3(7), 01-06.
- Chang, D.F., W.C. Chien, and W.C. Chou, 2016. Meta-Analysis Approach to Detect the Effect of Student Engagement on Academic Achievement. *International Conference on Intercultural Competence Express Letters* 10 (10), 2241–2246.
- Cohn, E., and E. Johnson, 2006. Class attendance and performance in principles of economics. *Educution Economics* 14(1), 211–233.
- Connell, J. P., and J. G. Wellborn, 1991. Competence, autonomy, and relatedness: A motivational analysis of self-system processes. In M. R. Gunnar & L. A. Sroufe (Eds.), *Minnesota Symposium on Child Psychology: Self Processes and Development* 23(1), 43-77.
- Cotner, S., J. Loper, and J. Walker, and D. Brooks, 2013. It's not you, it's the room-Are the high-tech, active learning classrooms worth it? *Journal of College Science Teaching* 42(6), 82-88.

- Dennen, V. P., and K. J. Burner, 2008. The cognitive apprenticeship model in educational practice. *In Handbook of Research on Educational Communications and Technology* 3(3), 425-439.
- Dennie, D., P. Acharya, D. Greer, and C. Bryant, 2019. The impact of teacher–student relationships and classroom engagement on student growth percentiles of 7th and 8th grade students. *Psychology in the Schools* 56(5), 765-780.
- Devkota, S., J. Eklund, and U. Wagle, 2020. Caste/ethnic differences in school dropout among 5-20-year-olds in Nepal. *Educational Review* 74(2), 1-20.
- Drain, T., L. Grier, and W. Sun, 2012. Is the growing use of electronic devices beneficial to academic performance? Results from archival data and a survey. *Issues in Information System* 13(1), 225-231.
- Finn, J., and D. A. Rock, 1997. Academic success among students at risk for school failure. *Journal of Applied Psychology* 82(2), 221–34.
- Fraser, S., and A. Bosanquet, 2006. The curriculum? That's just a unit outline, isn't it? *Studies in Higher Education* 31(3), 269-284.
- Fredricks, J. A., P.C. Blumenfeld, and A. H. Paris, 2004. School engagement: Potential of the concept, state of the evidence. *Review of Educational Research* 74(1), 59- 109.
- Freeman, S., S.L. Eddy, M. McDonough, M.K. Smith, N. Okoroafor, H. Jordt, and M. P. Wenderoth, 2014. Active learning increases student performance in science, engineering, and mathematics. *Proceedings of the National Academy of Sciences* 111(23), 8410-8415.
- Garcia, M., and L. Martinez, 2019. The role of extracurricular activities in enhancing student engagement: A social integration perspective. *Journal of Adolescent Research* 28(3), 378-392.
- Garcia, T., and P. R. Pintrich, 1996. The effects of autonomy on motivation and performance in the college classroom. *Contemporary Educational Psychology* 21(4), 477-486.
- Gay, G., and T. C. Howard, 2000. Multicultural teacher education for the 21st century. *The Teacher Educator* 36(1), 1-16.
- Gulek, J. C., and H. Demirtas, 2005. Learning with technology: the impact of laptop use on student achievement. *Journal of Technology, Learning, and Assessment* 3(2), 1-39.
- Gunuc, S., and A. Kuzu, 2015. Student engagement scale: development, reliability and validity. *Assessment and Evaluation in Higher Education* 40(4), 587-610.
- Hughes, J. N., W. Luo, O. Kwok, and L. K. Loyd, 2008. Teacher-student support, effortful engagement, and achievement: A 3-year longitudinal study. *Journal of Educational Psychology* 100(1), 1-14.
- Jimerson, S. R., E. Campos, and J. L. Greif, 2003. Toward an understanding of definitions and measures of school engagement and related terms. *The California School Psychologist* 8(1), 7-27.
- Johnson, A., 2019. Active learning strategies in curriculum design: A systematic review. *Educational Research Review* 27(1), 89-103.
- Johnson, D. W., R.T. Johnson, and K. A. Smith, 2014. Cooperative learning: Improving university

instruction by basing practice on validated theory. *Journal on Excellence in University Teaching* 25(4), 1-26.

- Johnson, L. S., 2008. Relationship of instructional methods to student engagement in two public high schools. *American Secondary Education* 36(2), 69-87.
- Jones, R., and S. Green, 2020. Multimodal instruction in curriculum design: Addressing diverse learning preferences. *Journal of Educational Technology & Society* 23(1), 215-227.
- Jones, S. M., S.M. Bouffard, and R. Weissbourd, 2013. Educators' social and emotional skills vital to learning. *Phi Delta Kappan* 94(8), 62-65.
- Kahu, E. R., 2013. Framing student engagement in higher education. *Studies in Higher Education* 38(5), 758-773.
- Kay, R., 2012. Exploring the use of video podcasts in education: A comprehensive review of the literature. *Computers in Human Behavior* 28(3), 820-831.
- Kember, D., A. Ho, and C. Hong, 2008. The importance of establishing relevance in motivating student learning. *Active Learning in Higher Education* 9(3), 249-263.
- Khadka, J., 2020. Student-teacher relationship in online class of Nepali schools during COVID-19. *Nepal Journal of Multidisciplinary Research* 3(3), 77-93.
- Klem, A. M., and J. P. Connell, 2004. Relationships matter: Linking teacher support to student engagement and achievement. *Journal of School Health* 74 (7), 262-273.
- Kurt, U., and F. Sezek, 2021. Investigation of the Effect of Different Teaching Methods on Students' Engagement and Scientific Process Skills. *International Journal of Progressive Education* 17(3), 86-101.
- Kuzu, A., M.S. Bellibas, and O. Baydas, 2014. Factors influencing student engagement and the role and influence of technology on student engagement. *International Journal of Research in Education and Science (IJRES)* 1(2), 101-113.
- Lau, H., H.Y. Hsu, S. Acosta, and T.L. Hsu, 2014. Impact of participation in extra-curricular activities during college on graduate employability: an empirical study of graduates of Taiwanese business schools. *Educational Studies* 40(1), 26-47.
- Lee, M. J. W., and J. Hammer, (2011). Gamification in education: What, how, why bother? *Educational Technology Research and Development* 59(6), 765-782.
- Loveless, T., 2012. How well are American students learning. *The Brown Center Report on American Education* 3(1), 1-38.
- Marks, H. M., 2000. Student engagement in instructional activity: Patterns in the elementary, middle, and high school years. *American Educational Research Journal* 37(1), 153-184.
- Means, B., Y. Toyama, R. Murphy, and M. Baki, 2013. The effectiveness of online and blended learning: A meta-analysis of the empirical literature. *Teachers College Record* 115(3), 1-47.
- Osman, K., 2011. The inculcation of generic skills through service learning experience among science student teachers. *Procedia-Social and Behavioral Sciences* 18(0), 148-153.
- Parker, E., and R. Smith, 2018. The impact of extracurricular activities on student engagement: A

- comparative analysis. *Journal of Educational Research* 42(2), 215-230.
- Prince, M., 2004. Does active learning work? A review of the research. *Journal of Engineering Education* 93(3), 223-231.
- Qureshi, M. A., A. Khaskheli, J.A. Qureshi, S.A. Raza, and S. Q.Yousufi, 2023. Factors affecting students' learning performance through collaborative learning and engagement. *Interactive Learning Environments* 31(4), 2371-2391.
- Reid, K., and C. Fitzpatrick, 2016. Identifying, understanding and intervening with chronic absenteeism: A review of recent research. *International Journal of Inclusive Education* 20(7), 698-712.
- Rimm-Kaufman, S.L., and L. Sandilos, 2011. Improving students' relationships with teachers to provide essential supports for learning. *Teacher's Modules* 6(8), 1 – 30.
- Roorda, D. L., H.M.Y. Koomen, J.L. Spilt, and F. J. Oort, 2011. The influence of affective teacher-student relationships on students' school engagement and achievement: A meta-analytic approach. *Review of Educational Research* 81(4), 493-529.
- Salemi, M.K., and Clickenomics, 2009. Using a classroom response system to increase student engagement in a large-enrollment principles of economics course. *Journal of Economics Education* 40(1), 385–404
- Schwab, J. J., 1973. The practical: A language for curriculum. *School Review* 81(4), 501-522.
- Schwartz, D. L., and J. D., Bransford, 1998. A time for telling. *Cognition and Instruction* 16(4), 475-522.
- Shrestha, A. K., and B. Tamrakar, 2023. Teaching Online during Covid-19 crisis: Lived Experience of Faculty Members of Nepali Business Schools. *Journal of Education and Research* 13(1), 43-67.
- Skinner, E. A., T.A. Kindermann, and C. J. Furrer, 2009. A motivational perspective on engagement and disaffection: Conceptualization and assessment of children's behavioral and emotional participation in academic activities. *Educational and Psychological Measurement* 69(3), 493-525.
- Smith, J., and K. Brown, 2017. Enhancing student engagement through authentic learning experiences: A curriculum design perspective. *Teaching in Higher Education* 22(4), 413-430
- Sokeman, M., 2021. Middle school students' behavioral, emotional, cognitive, and agented engagement in science: The role of self-efficacy and learning environment variables. *Journal of Educational Psychology* 115(3), 415-430.
- Stuart, M., C. Lido, J. Morgan, L. Solomon, and S. May, 2011. The impact of engagement with extracurricular activities on the student experience and graduate outcomes for widening participation populations. *Active Learning in Higher Education* 12(3), 203-215.
- Teixeira, A.C., 2016. The Impact of Class Absenteeism on Undergraduates' Academic Performance: Evidence from an Elite Economics School in Portugal. *Innovation in Education and Teaching International* 53(1), 230–242.
- Trimmel, M., and J. Bachmann, 2004. Cognitive, social, motivational and health aspects of students in laptop classrooms. *Journal of Computer Assisted Learning* 20(1), 151-158.

- Trowler, V., 2010. Student engagement literature review. *The Higher Education Academy* 11(1), 1-15.
- Upadhayaya, P. R., B. Sharma, Y.P. Gnawali, and S. Belbase, 2021. Factors influencing graduate students' perception of online and distance learning in Nepal. *Turkish Online Journal of Distance Education* 22(3), 236-269.
- Verschueren, K., and H. M. Koomen, 2012. Teacher-child relationships from an attachment perspective. *Attachment & Human Development* 14(3), 205-211.
- Wang, M. T., and J. S. Eccles, 2012. Social support matters: Longitudinal effects of social support on three dimensions of school engagement from middle to high school. *Child Development* 83(3), 877-895.
- Young, K., C. Young, and A. Beyer, 2017. Does the classroom matter? How the physical space affects learning in introductory undergraduate science courses. *Journal of College Science Teaching* 46(6), 80-87.
- Zepke, N., L. Leach, and P. Butler, 2010. Engagement in post-compulsory education: students' motivation and action. *Research in Post-Compulsory Education* 15(1), 1-17.
- Zhao, C., and G. D. Kuh, 2004. Adding value: Learning communities and student engagement. *Research in Higher Education* 45(2), 115-138.
- Zuo, B., and E. W. Ratsoy, 1999. Student participation in university governance. *Canadian Journal of Higher Education* 29(1), 1-26.