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## **Factors and Levels of Student Engagement in a State College: A Mixed-Methods Study**

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**Abstract.** This sequential explanatory mixed-methods study determined the factors and levels of student engagement among the 493 students in Northwestern Mindanao State College of Science and Technology, Tangub City, Philippines. The quantitative data gathered using survey questionnaires revealed the following: the students' levels of perception on the importance of competence, autonomy, relatedness, student-teacher transaction, and student-institution transaction to students' engagement are very important; the levels of affective engagement, cognitive engagement, and behavioral engagement are very high, and social engagement is high; the factors and levels of student engagement have positive correlation; and the student-teacher transaction is the best predictor of student engagement. Using in-depth interviews of 12 participants picked using criterion purposive sampling, the qualitative data, analyzed using Braun and Clarke analysis, arrived at nine themes for the importance of the factors to students' engagement and 15 themes for the students' engagement in the four dimensions. The factors of student engagement are important since students are given the freedom to accomplish their dreams and develop themselves through good relationships with classmates, desirable personal and professional qualities of the teachers, and the support of the college. The students' engagement in the four dimensions can be attributed to the goals that they have to achieve, the support from teachers and the school, their active participation, the guidance from the more knowledgeable others and the harmonious relationship with peers. It is recommended that the College invest in various support services to create a pleasant learning environment, devote itself to faculty training to prepare them for teaching, and implement activities that will enhance student engagement.

**Keywords.** student engagement, autonomy, competence, relatedness, student-teacher transaction, student-institution transaction, mixed-methods study

### **Introduction**

Student engagement is the most significant factor in the learning process. Students are empowered to attain their goals since they acquire a greater sense of responsibility for their actions. Their engagement plays a crucial role in achieving academic success. Northwestern Mindanao State College of Science and Technology (NMSCST), under Republic Act No. 11186, is preparing to become the University of Northwestern Mindanao. One of the key result areas that needs to be given focus is the quality of teaching and learning, which includes processes that look at outcomes regarding student achievements and graduates' performance. Based on the Commission on Higher Education (2020) data, the average graduation rate for the

past years from AY 2015-2016 until 2018-2019 is 19.82%. The national passing rate for licensure examinations across all disciplines from 2014 to 2018 is 38.26%. NMSCST contributes to these national data, with an average graduation rate of 17.66% and a board exam passing rate of 36.28%. NMSCST graduation rate and board exam passing rate are below the average national rates. This could be due to low student engagement levels. This research determined the factors and levels of student engagement so that the College can help the students improve their engagement and yield positive outcomes.

### **Review of Related Literature**

According to Zepke (2014), student engagement is a “meta-construct” wherein students, educators, staff, and institutions collaborate to enrich higher education experiences. Academic time is necessary but not adequate to achieve the educational outcomes, including academic, behavioral, and socio-emotional development. Student engagement is the mediating variable that integrates important factors within student progress, including a student’s personal life, relationship with peers, and participation in institutional and social endeavors.

Factors are described as the contributing facilitators outside of the target construct that can influence the target (Skinner & Pitzer, 2012). Deci et al. (1985) distinguished two possible factors in the motivational model: personal and social. Personal factors are the self-perceptions or self-system mechanisms of students that lead to lifelong perceptions of various aspects of oneself, like self-efficacy or the sense of being part and accepted in the school. Social factors, often known as social contexts, are interpersonal experiences with important social stakeholders, such as teachers and peers, including characteristics, like being warm, reliable, or regulating. Zepke et al. (2010) conducted a study of the international engagement literature and found that various lenses were used to examine engagement influences. This analysis resulted in a Conceptual Organizer being created. The organizer emphasizes student motivation and institutional transactions. The concept of motivation is not unitary (Zepke & Leach, 2010). In their Self-Determination Theory (SDT) of motivation, Deci and Ryan (2002) differentiated extrinsic and intrinsic motivations. The Conceptual Organizer of Zepke et al. (2010) indicates that the most engaged students are intrinsically motivated. Competence is the psychological need to have a significant impact on one’s surroundings. Autonomy is the basic need to be self-directed and self-determined. Relatedness is the interpersonal aspect, indicating how connected students feel to others, how caring relationships are, and how much of a community they belong to (Deci & Ryan, 2002). Institutional transactions include student-teacher interactions and institutional support. Teachers should be seen as available (Russell & Slater, 2011), ready to engage with students, and on a one-to-one basis (Case, 2007) and considered to be genuinely interested in students, available to discuss student progress (Krause & Coates, 2008). The institution’s culture (Leach & Zepke, 2011) and its first-year experience (Reason et al., 2006) are critical factors in promoting student engagement.

Based on higher education literature, cognitive, behavioral, affective, and social are identified as distinct yet interrelated dimensions of student engagement (Bowden et al., 2017). The cognitive dimension is a set of constant and active mental processes involving the primary objects of engagement (Vivek et al., 2014). It includes the level of positive focus and concern provided to tertiary communication, preparation, and coordination of academic activities (Zepke et al., 2010). The behavioral dimension refers to the collective activities and visible student performance (Dessart et al., 2015). Behavioral engagement is assessed by the measurable academic performance of a student, which includes: constructive conduct of the student; attendance; effort and time to be on task; ability to contribute; active class participation; curricular and co-curricular activities involvement; and dedication and determination to meet

difficult tasks (Kahu et al., 2015). The affective dimension is related to students' mutual and sustained emotional levels and the degree of passion that students feel towards tertiary experience (Bowden, 2013). Affective engagement develops through heightened feelings during on-campus and off-campus activities, illustrated by satisfaction, pride, excitement, enthusiasm, flexibility, and pleasure (Klem & Connell, 2004). The social dimension considers the ties and relationships between students and their colleagues, academic staff, administrative personnel, and other figures (Pekrun & Linnenbrink-Garcia, 2012). It creates feelings of inclusiveness, affiliation, social interaction, and connection with the tertiary institution (Eldegwy et al., 2018).

### **Methods**

Sequential explanatory mixed-methods research was used in this study. In the quantitative phase, the participants were identified using proportionate stratified random sampling. The sample population is 2735, and the sample size is 493. In the qualitative phase, 12 participants were chosen through criterion purposive sampling. The data collection instrument was a self-report questionnaire to gather and measure the participants' engagement levels and their perceptions on the factors that affected their engagement. The qualitative phase used in-depth interviews with each participant to co-construct the narratives. Pearson Product Moment Correlation Coefficient and multiple regression analysis were used to analyze the data in the quantitative phase, while Thematic Analysis was used for the data in the qualitative phase.

### **Results and Discussion** **Quantitative Phase**

#### **Students' Levels of Perception on the Importance of the Factors to Students' Engagement**

As shown in Table 1, the five identified factors of student engagement: competence, autonomy, student-institution transaction, student-teacher transaction, and relatedness, are very important to the students of NMSCST.

<b>Factors</b>	<b>Weighted Mean</b>	<b>Interpretation</b>
Competence	3.58	Very Important
Autonomy	3.58	Very Important
Student-Institution transaction	3.52	Very Important
Student-Teacher transaction	3.49	Very Important
Relatedness	3.45	Very Important

**Table 1: Students' Levels of Perception on the Importance of the Factors to Students' Engagement**

Competence is very important to the students. This means that aside from establishing their goals, they knew how to achieve them. To understand the lessons, they approached their teachers to help them. Meeting the teachers' expectations was also a motivating factor. Some subjects are challenging, but they were able to analyze and solve problems correctly by applying what they have learned from the other subjects. The students tried their best to participate in the discussion and answered the teacher's questions using their prior knowledge and ideas from their classmates' answers. They were motivated to engage in all activities because they wanted to learn new skills and abilities.

Autonomy is very important to the students. Taking responsibility for their learning, setting clear and achievable goals, looking for learning resources to help them learn, and setting standards for themselves are very important. This is commendable since the students take responsibility for their learning. They shared that they looked for resources to understand the topics, answered questions, searched the internet, and watched video tutorials. They had clear and achievable goals to learn and graduate. They are motivated to engage in the class to accomplish this goal. This goal gave them direction and a sense of purpose.

Relatedness is very important to the students. The college has met the students' need to belong to the school, to be valued as a person, and accepted by the teachers and students. Learning experiences are founded on relationships. Students benefited from their strong ties with the teachers and students. Yusof et al. (2020) confirmed this when he said that in the context of learning experiences, students need to feel connected to achieve their learning goals, acquire social skills, and develop positive attitudes. Furthermore, having a good relationship with their classmates is a very important motivating factor. They loved working with other students in group activities, played games together, helped each other understand the lessons by sharing their ideas about the concepts they learned.

Student-teacher transaction is very important to the students as shown in the ratings of each indicator. Their ratings showed that their teachers have commendable pedagogical skills. Indeed, as facilitators of learning teachers have to motivate and challenge students to learn by making the subject interesting, by giving prompt feedback on their performance and most of all by teaching them how to learn. Furthermore, the students considered the teachers as motivators in their engagement. They were motivated to attend classes and participate in the discussion. On the other hand, students were challenged in accomplishing requirements, so they liked teachers who were flexible with assessment deadlines. Most importantly, they needed someone who gives advice and words of wisdom. This feedback stresses the importance of building relationships with students. The teachers' motherly approach and kindness are definitely motivating qualities in establishing good relationships with the students.

Student-institution transaction is very important to the students. A college must be able to meet the personal, social, and physical needs of the students. The College provided them facilities, resources, and learning materials that facilitated their learning. The students felt that the College supported them with everything they needed. For them, the College provided them a pleasant environment equipped with instructional technology. Infrastructures in schools give students the knowledge and tools they need to succeed academically (Gonzalez, 2013). Aside from the college support system, the students added another one that significantly helped them in their college life during the interviews. For them, the most significant support provided by the College is free education. They were all united in saying that they benefited the most from the free education because they no longer have to pay for the tuition. They could not study and pursue college if it is not free. With this support, they were more motivated to engage and participate in all activities to express their gratefulness.

### **Levels of Student Engagement**

As shown in Table 2, the overall level of engagement of the students in NMSCST is very high. Among the four dimensions of student engagement, the students have very high affective engagement, cognitive engagement and behavioral engagement. The students have high social engagement.

<b>Dimensions of Engagement</b>	<b>Weighted Mean</b>	<b>Interpretation</b>
Affective Engagement	3.38	Very High
Cognitive Engagement	3.34	Very High
Behavioral Engagement	3.31	Very High
Social Engagement	3.22	High
<b>Overall Level of Engagement</b>	<b>3.31</b>	<b>Very High</b>

**Table 2: Students' Levels of Engagement in the Four Dimensions**

The students have very high affective engagement. This is reflected in the students' perceptions of the college campus as a supportive environment to learning which motivated them to explore new ideas. As the primary stakeholder of the College, students felt part of the academic community because all activities initiated in the College were geared towards their holistic development. Furthermore, the support provided by the College made them feel valued as a person because they were given the essential things they needed to learn.

The students have very high cognitive engagement. It is worthy to note that the first two indicators are rated very high by the students. Working and pushing hard to understand difficult content speak of students who are self-directed. They did things on their own to learn the lessons. This finding on the students' self-regulation is supported by Zimmerman (2010) who stated that one of the significant features of cognitive engagement is that learning is strategic or self-regulating. When students use metacognition techniques to deal with academic challenges, they are cognitively engaged.

The students have very high behavioral engagement. The first three indicators: studying at their own pace, looking for resources, and actively asking for help reflect of strategic learning strategies and active self-regulation. This finding corroborates the very high cognitive engagement on working hard to understand difficult and confusing lessons. These practices: researching, studying, exploring, solving, listening, preparing for class also reflect of good study habits. Mahatmya et al. (2012) repeated that students who demonstrated behavioral engagement, such as paying attention in class, completing homework, arriving prepared for class, and engaging in academic curricular activities, reached higher levels than their less behaviorally engaged peers.

The level of social engagement of the students is high. They worked with other students on projects and assignments inside and outside the class. They worked together by helping each other accomplish the tasks and understand the lessons by sharing each other's ideas of the concepts. This reveals a good relationship among the students. They reached out to their classmates whenever they needed help. They were not just classmates, but they were friends and even treated each other like brothers and sisters. The students also attended social activities organized by the College such as acquaintance parties. These activities happen monthly or annually, so they looked forward to attending these events.

### **Test of Significant Relationship between the Factors and Levels of Student Engagement**

As shown in Table 3, there is a significant relationship between the factors and levels of student engagement as indicated by the p-value of .000 which is lower than the 0.05 level of significance.

Factors	p-value	Interpretation	Pearson r	Interpretation
Student-teacher transaction	.000	Significant	.566	Moderate Positive Correlation
Student-institution transaction	.000	Significant	.535	Moderate Positive Correlation
Relatedness	.000	Significant	.498	Moderate Positive Correlation
Competence	.000	Significant	.485	Low Positive Correlation
Autonomy	.000	Significant	.432	Low Positive Correlation

**Table 3: Test of Significant Relationship between the Factors and Levels of Student Engagement**

The student-teacher transaction, student-institution transaction, and relatedness factors have indicated moderate positive correlation, while competence, and autonomy have low positive correlation. The moderate positive correlation between student-teacher transaction and student engagement means that the students' level of engagement increases when the student-teacher transaction increases. Students are more engaged when they have a good relationship with the teachers. Students like teachers who give them hands-on activities, give them positive reinforcement and provide guidance at the side. The students are engaged because of the support provided by the institution. Aside from providing them with a pleasant and supporting environment, the school has supported their dreams to get a college degree which is a passport to social mobility. The students are engaged because relatedness is satisfied. Having a good relationship with their classmates, treating each other like brothers and sisters indicates that they value each other. The good relationship with the teachers and staff also satisfied the need for relatedness. On the other hand, competence and autonomy do not have much influence because of low correlation, but they can still influence engagement. The students of NMSCST also considered these factors as influencers of student engagement.

### Best Predictor of Student Engagement

Which among the five factors of student engagement: autonomy, competence, relatedness, student-teacher transaction, and student-institution transaction, is the best predictor of student engagement? In determining it, multiple regression was used. As shown in Table 4, the engagement of the students is predicted by these factors: student-teacher transaction and relatedness with a p-value .000, and student-institution transaction with a p-value of .014, which are lower than the 0.05 level of significance. It has a regression equation of  $y = 1.183 + 0.201t + 0.131r + 0.113i$ , where 0.201t is for student-teacher transaction, 0.131r is for relatedness, and 0.113i is for student-institution transaction. This means that for every unit increase of student-teacher transaction, student engagement also increases by .201; for every unit increase of relatedness, student engagement increases by .131; and for every unit increase of student-institution transaction, student engagement level increases by .113.

Factors	Beta	P-value
Student-Teacher transaction	.201	.000
Relatedness	.131	.000
Student-Institution transaction	.113	.014

Autonomy	.088	.057
Competence	.073	.133

**Table 4: Best Predictor of Student Engagement**

For the students of NMSCST, their engagement is predicted by these three factors, but the best predictor of their engagement is student-teacher transaction. According to the students, they listened and participated in the class if they liked the teacher. They also considered teachers as their mother who is always there for them, helping and motivating them to study, someone who gives them advice whenever they have academic and personal struggles. Furthermore, teachers are the primary sources of information. While students can learn through reading articles and watching videos, learning is better when a teacher discusses the concepts.

### Qualitative Phase

#### Importance of the Factors to Students' Engagement

Nine themes emerged from the participants' responses to the importance of the factors to students' engagement. The themes are presented in Table 5.

Factors of Student Engagement	Themes
Competence	1. Students engaged because they are capable.
	2. Students engaged to satisfy their hunger for knowledge.
	3. Student leaders are engaged because of their position.
Autonomy	4. Students are more engaged because of their freedom to accomplish tasks their own way.
	5. Students are driven to engage because of their goals.
Relatedness	6. Students' good relationships with others encouraged engagement.
Student-teacher transaction	7. Students are more engaged if they have a good relationship with the teachers.
	8. Students are more engaged because of the teachers' positive qualities
Student-institution transaction	9. Students are more engaged because of the support of the College.

**Table 5: Importance of the Factors to Students' Engagement**

Three themes emerged from the importance of competence to students' engagement. The first theme that emerged is, **students engaged because they are capable**. The students engaged and participated in the class because they were competent and capable of doing such things. The students engaged in the class because they were capable of doing the tasks. They were confident to engage because they had the knowledge to answer questions, the skills to accomplish the tasks, and the mastery to deliver results. Deci and Ryan (2008) argued that when people do not feel capable and effective, their motivation plummets, and they suffer ill-being. Conversely, the experience of mastery leads to feelings of personal satisfaction, vitality, interest, and well-being. Hence, competence is important to student engagement because it promotes the pursuit of challenging and deeply satisfying experiences and is a criterion for psychological growth and well-being. The second theme is, **students engaged to satisfy their hunger for knowledge**. The students engaged in different class activities because they wanted to develop themselves by gaining more knowledge. Students engaged in different activities

because they wanted to learn, develop themselves and improve their capability. This need to know more pushed them to engage in different learning activities. Deci and Ryan (2002) supported this when they said that human beings have an inherent tendency to develop themselves. This means that they actively strive to become effective to master their environments, and to hone their capacities to reach their innate potential. The third theme is, **student leaders are engaged because of their position**. The students' leadership position had driven them to engage in different college activities. Among the 12 participants, ten are student leaders, and they all said that being a student leader engaged them in different college activities because they are at the forefront of these activities. They are part of the implementing body and the link between the students and the administration. It is noteworthy that the participants said that they would still engage even if they were not leaders.

Two themes emerged from the importance of autonomy to students' engagement. The fourth theme is, **students are more engaged because of their freedom to accomplish tasks their own way**. The students appreciated the fact that they were given the autonomy to do things their way. Students are more engaged in the class if they are given the freedom to do things their way. Deci and Ryan (2002) said that human beings wanted to make their own decisions and develop their ideas. In other words, they wanted to feel autonomous. When people felt autonomous, they perceived their needs, motivations, preferences, and behaviors to be aligned and congruent with one another. In other words, they felt like the directors of their own lives and live according to their interests and values. The fifth theme is, **students are driven to engage because of their goals**. Students were driven to engage in activities because they wanted to achieve their goals. When students have clear and achievable goals, they do whatever it takes to achieve that goal. Their goal served as their drive, inspiration, guide, and source of strength. Since they are driven to achieve that goal, they do things because they want to do it rather than they must do it. When they accomplish something they love or consider relevant and worthwhile, they feel autonomous. Deci and Ryan (2002) added that human beings have the innate need to pursue their own goals. This desire to feel self-directed and self-endorsed is innate. All individuals will naturally strive to fulfil this need as long as their environment facilitates and supports this striving.

One theme emerged from the importance of relatedness to students' engagement. The sixth theme is, **students' good relationships with others encouraged engagement**. Having a good relationship with classmates fostered engagement. The students were encouraged to participate in the class because of the influence of their classmates. According to the participants, having a good relationship with their classmates affected their engagement. Students are engaged in the class if they have a good relationship with their classmates. Their classmates influenced some students to participate in the class. At the same time, others like to work on group tasks if they like their group mates. If there is cooperation in the group, tasks are easily accomplished because they are working together to finish them. They help each other when someone does not understand something in the lesson. Friends feel the need to listen to others' struggles, be it academic, personal, or family problems.

Two themes emerged from the importance of student-teacher transaction to students' engagement. The seventh theme is, **students are more engaged if they have a good relationship with the teachers**. Having a good relationship with teachers promoted engagement. Students engaged in class activities if they have a good relationship with the teachers. The students participated in the class if they can interact with their teachers. The students' interest in the subject is also affected by their relationship with the teachers. Some students hate the subject if they do not like the teacher because the teacher is the personification of the subject. The eighth theme is, **students are more engaged because of the teachers'**

**positive qualities.** Being trusted by teachers developed self-confidence. Students were more engaged when their teachers trusted them. The students are more engaged because of the teachers' positive qualities like having a sense of humor and believing in the student's capacity. This was confirmed by Noddings (1988) when he said that warmth, empathy, and time with the students are three key aspects for creating relationships that contribute to emotional engagement with students.

One theme emerged from the student-institution transaction. The ninth theme is, **students are more engaged because of the support of the College.** Having free education stimulated engagement. Students were engaged because they were provided with their needs and did not have to think of payment for the tuition. The students are united in saying that the number one support they got from the College is free education. Having free education stimulated engagement. It is a great help to the students because they no longer have to pay the tuition fee. Most of the students belong to families who are classified between the poor to middle class. Aside from the free tuition, scholarships are offered to the students like varsity scholarship, performing arts scholarship, and others. Because of this support, the students were more engaged.

### **Students' Engagement in the Four Dimensions**

There were fifteen themes that emerged from the participants' responses to the students' engagement in the four dimensions. The themes are presented in Table 6.

<b>Dimensions of Engagement</b>	<b>Themes</b>
Affective Engagement	<ol style="list-style-type: none"> <li>1. Leading and serving others enhanced positive feelings.</li> <li>2. Support from College and teachers motivated engagement.</li> <li>3. Students acquired desirable feelings by participating in college activities.</li> <li>4. Negative experiences resulted to discouragement.</li> </ol>
Cognitive Engagement	<ol style="list-style-type: none"> <li>5. Students learned from teachers.</li> <li>6. Students learned from classmates.</li> <li>7. Students learned from online resources.</li> <li>8. Students' learning is challenged during the pandemic.</li> </ol>
Behavioral Engagement	<ol style="list-style-type: none"> <li>9. Students participated actively in the class to learn.</li> <li>10. Students managed themselves to accomplish tasks.</li> <li>11. Students prepared only for assessments.</li> <li>12. Students' lack of preparation hindered participation.</li> </ol>
Social Engagement	<ol style="list-style-type: none"> <li>13. Students helped each other accomplish tasks.</li> <li>14. Students participated in social activities to experience college life.</li> <li>15. Students participated in college activities to showcase their talents and skills.</li> </ol>

**Table 6: Students' Engagement in the Four Dimensions**

Four themes emerged from the students' affective engagement. The first theme is, **leading and serving others enhanced positive feelings.** This positive feeling was due to their student leadership which elicited a sense of belongingness in the College. For these student leaders, their sense of belongingness was heightened because the organization members made them feel part of a family by asking for their answers to questions and their advice. The activities were tiring, but they were happy to serve other students, felt good when trusted, and did not feel alone when other students greeted them wherever in campus. This feeling is not about being

famous, but it is about being able to help others. The second theme is, **support from College and teachers motivated engagement**. The support from the College greatly motivated them. The students were extremely grateful because the College supported them with their financial needs, specifically free education. Studies indicated that institutions need to provide for the emotional needs of their students (Walsh et al., 2009). If students perceived that the school supported them, it could have a powerful influence on their desire to complete college. Schools that make a deliberate effort to support students through their policies may help increase graduations (Thomas, 2014). The third theme is, **students acquired desirable feelings by participating in college activities**. They were happy and proud to be students because of the great experience in the College. Participating in the activities generated positive emotions. They shared that they participated in activities designed for them and were encouraged because they were satisfied by these activities. Representing the College boosted students' confidence. Students were honored to represent the College in competitions. Not all students were given a chance to represent the College in local, regional, and national competitions. Students' skills were tapped, which boosted their confidence. The College has been active in joining sports and socio-cultural competitions. Students were proud to represent the College. Whether they won or lost, the pride of representing the College was already engraved in each student. Wherever they went, they brought the name of the College, so they gave their best. The fourth theme is, **negative experiences resulted to discouragement**. Personal issues affected engagement. The limited resources for laboratory work caused discouragement. Personal and family problems affected student engagement. Although they tried their best to focus and engage in the class, they cannot help but be affected by the problems they left at home. They wanted to give their best and do everything, but their problems hindered them from doing their tasks. Although there was only one participant who mentioned this in the interviews, it is very possible that other students have this problem too.

Five themes emerged from the students' cognitive engagement. The fifth theme is, **students learned from teachers**. Knowledgeable teachers inspire learning. Teachers who utilized different strategies inspired engagement. Students considered teachers as the primary source of learning. The teachers' content knowledge and pedagogical skills played an essential role in the students' learning. They learned better when teachers utilized different teaching strategies, such as giving them hands-on activities. They were more engaged when they were given challenging activities. Finally, students liked teachers who are approachable and answered their questions whenever they were confused. The sixth theme is, **students learned from classmates**. Help from classmates facilitated understanding. They asked classmates to explain difficult concepts and topics to solve problems and to guide them in accomplishing tasks. Another source of learning is engaging with their classmates. When students found it hard to understand topics independently, while others did not want to bother the teachers with questions, so they asked classmates who understood the lesson to explain them. Some students were not good at problem-solving; instead of trying hard to understand the process, they asked for help from their classmates in solving the problems. The seventh theme is, **students learned from online resources**. Searching the internet enriched understanding of the lessons. The students searched online resources to understand the lessons. While others read online articles to add more knowledge. Another cognitive engagement is, watching online video tutorials. They watched online video tutorials to understand the topics and finish the tasks. The internet is another source of learning. Students searched the internet to find answers, which vary from articles to video tutorials. When teachers and classmates were not available, their last option was the internet. Searching the internet enriched their understanding of the lessons. The eighth theme is, **students' learning is challenged during the pandemic**. Learning in the pandemic is

challenging. The students mentioned that learning during the pandemic is different because teachers cannot see who participated in the discussion. They added that participating in online classes is challenging because they were unable to express themselves, and there was no student reaction and engagement. They also mentioned that attending online classes was limited due to insufficient gadget load. According to Pokhrel and Chhetri (2021), lockdown and social distancing measures due to the COVID-19 pandemic have led to closures of schools, training institutes and higher education facilities in most countries. There is a paradigm shift in the way educators deliver quality education, through various online platforms.

Four themes emerged from the students' behavioral engagement. The ninth theme is, **students participated actively in the class to learn**. This is that that emerged from the students' engagement in the four dimensions. Participating in class activities led to learning. They attended classes all the time, volunteered to answer questions and performed tasks in the class. Furthermore, they also participated in oral recitations by sharing their ideas on familiar questions. Learning takes most effectively through the efforts and the perseverance to learn. Liu (2001) stated that students must engage actively by playing the roles of information seekers. The acts of asking questions, giving opinions, or simply answering questions posed by the instructor or fellow students are examples of the active type of classroom participation. The tenth theme is, **students managed themselves to accomplish tasks**. Managing time helped accomplish requirements. They managed their time by working on activities one at a time so that they can accomplish and submit requirements on time. Some students tried their best to stop procrastination. They were still able to submit the requirements on time, but they had to be absent on some subjects to work on it. Time management is essential in accomplishing tasks. This is a good indicator of good behavioral engagement since this reflects one's determination and persistence to pass requirements on time. The eleventh theme is, **students prepared only for assessments**. The students shared that they only studied if there are quizzes and exams. These experiences reflect poor study habits which indicate poor behavioral engagement. However, according to the participants, even though they did not study on a daily basis, they spent hours reading and reviewing their lessons if there were announced quizzes and major examinations. They still got high scores in summative assessments because they prepared for them. The twelfth theme is, **students' lack of preparation hindered participation**. Coming to class without preparation hindered participation. The students came to class without preparation, as a result they were not able to participate in the discussion because they were not able to read about the lesson for that day.

Three themes emerged from the students' social engagement. The thirteenth theme is, **students helped each other accomplish tasks**. Helping each other accomplishes tasks lighter. The students helped their classmates to understand the lessons and worked together to accomplish tasks. Others were motivated to participate in the class because of the influence of the classmates. Helping classmates to understand the process of arriving at correct answers rather than giving answers right away is very commendable. This social engagement is beneficial since students develop increasingly important skills in the professional world (Caruso & Woolley, 2008). The fourteenth theme is, **students participated in social activities to experience college life**. The students participated in the activities because they wanted to experience everything in the College. Some of them did not experience these activities in previous schools, while others could use this experience for future positions. Tenhouse (2021) stressed the importance of extracurricular activities in college campuses. These activities exist to complement the university's academic curriculum and to augment the student's educational experience. The fifteenth theme is, **students participated in college activities to showcase their talents and skills**. The students participated in different college activities because they

wanted to develop their talents and skills. The students performed in socio-cultural events because they wanted to express their creative side. They played in different sporting events because they had the skills for specific sports. The students participated in different college activities because they wanted to entertain others by sharing their talents and skills.

The following findings from the qualitative phase expanded the data gathered from the quantitative phase. First, being a student leader heightened their sense of belongingness to the College. They were happy to serve other students because they felt good to be trusted. Second, negative experiences resulted to discouragement. Personal and family problems affected student engagement. Although they tried their best to focus and engage in the class, they cannot help but be affected by the problems they left at home. Another negative experience is the lack of chemicals in the laboratories. Instead of performing experiments, they watched videos about them. Third, students' learning in the pandemic is challenging. They lost the eagerness to participate during the discussion because they cannot fully express themselves during online classes, and they cannot see their classmates' reactions. Lastly, the students come to class without any preparation. As a result, they cannot participate during the discussion. They only study whenever there are quizzes and exams. These experiences reflect poor study habits which indicate poor behavioral engagement.

### **Conclusion**

Student engagement is influenced by students' goals in life, the support and guidance from the significant others, the harmonious relationships in school and most of all their active participation. The students of NMSCST have a very high engagement level. The College must have provided the students a conducive learning environment to attain this level of engagement. The students' transaction with teachers wields a tremendous effect on student engagement. Hence, teachers who are given the privilege and opportunity to touch the lives of students should possess both desirable personal and professional qualities. Teachers who are open, approachable, friendly, motherly, equipped with content and pedagogical expertise can definitely ensure student engagement that ultimately results to effective learning.

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