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STUDENT ENGAGEMENT MODEL: ITS APPLICATION ON STUDENTS' LEARNING

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ABSTRACT :

This Sequential Exploratory study systematically developed and validated a multidimensional survey instrument to measure student engagement. Conducted in the Schools Division Office of Kidapawan City, the study involved 303 respondents and explored this construct in a three-phase process. Phase 1 involved theoretically deriving survey items from established engagement frameworks, targeting affective, behavioral, cognitive, and social dimensions. Each item was meticulously crafted to capture the core concepts and behaviors relevant to its respective dimension, resulting in a comprehensive and theoretically grounded item pool. Phase 2 employed exploratory factor analysis (EFA) on data from 303 students, revealing a robust thirteen-factor structure that accounted for 66.66% of the total variance. This structure reflected nuanced sub-dimensions such as proactive engagement, teacher rapport, critical thinking, and belongingness. Confirmatory factor analysis (CFA) was also used in this phase to evaluate competing models, including an eleven-factor and a more parsimonious five-factor structure. While the eleven-factor model offered conceptual richness, the five-factor model demonstrated superior statistical fit and interpretability, supported by strong model fit indices and meaningful inter-factor relationships. The findings advocate for a multifaceted yet practical approach to assessing student engagement. The validated instrument provided a comprehensive understanding of student engagement's complex nature, offering a solid foundation for future educational research and practice. Phase 3 focused on the interventions and policy formulation based on the results of the study. Interventions such as proactive engagement and teacher rapport development, critical thinking integration, and effort and responsibility cultivation were put forward by the participants as most essential to ensure students' engagement in academic settings.

Keywords: Student Engagement, Factor Analysis, Content Analysis, Public School Students, Kidapawan City, Philippines

I. INTRODUCTION

Student engagement encompasses a construct that encompasses affective, behavioral, cognitive, and social dimensions. These dimensions are all essential for fostering learning. It is recognized as an essential factor which can promote academic success and satisfaction during the process of learning. By studying student engagement, better understanding of its dimensions would be achieved which is essential to provide a guide to be used when engaging in the process of teaching and learning.

Barkley and Major (2020) defined student engagement as the extent to which students exhibit attention, curiosity, interest, optimism, and passion during learning or when presented with concepts. Such engagement is not about participation but rather involves a deeper cognitive investments which students must commit for the success of their educational journey.

The essence of student engagement may be understood through the various dimensions – namely, affective, behavioral, cognitive, and social engagement. Affective engagement involves emotional responses that students have towards their learning experiences (Grawemeyer et al., 2017). This highlights an importance of fostering positive emotions for better participation.

Meanwhile, behavioral engagement is about the observable actions of students in their tasks involving their participation, effort, and persistence (Nguyen et al., 2018). As for cognitive, engagement, this covers their attention and focus, active learning, and critical thinking inside the classroom (Lombardi et al., 2021). Meanwhile, social engagement which is considered as the fourth identified dimension, encompasses the students' relationship with their peers, the faculty, and most importantly a feeling of belonging inside the classroom which makes them valued (Allen et al., 2021).

In the neighboring ASEAN countries, studies on student engagement have been conducted recently but their focus was different. In the case of Wong et al. (2024), they studied about student engagement and its association towards achievement and subjective well-being of students. Sun and Zhang (2024) investigated students' online engagement on the learning outcomes of English as Foreign Language. Meanwhile, Guo et al. (2024) focused on students' engagement in chatbot-supported classroom debates.

In the Philippines, studies on student engagement also exist. Just recently, Oliva (2024) studied student engagement and focused on the stance of elementary teachers. Meanwhile, Fernandez and Marcelo (2024) studied on the significant difference in students' Cognitive, Affective, and Psychomotor indicators based on students' demographics. They also went on to test the relationship of these indicators towards students' participation in school organization, extra, and co-curricular activities. In addition, Gopez and Gopez (2024) studied student engagement which focused on the role of instructor scaffolding done in an online setting. He also assessed the mediating role of self-regulation. Based on these existing studies done recently, there

is a presence of a methodological gap (Miles, 2017). This gap was identified since previous studies used quantitative methods typically done through inferential statistics and this now results to commonality (Müller-Bloch & Kranz, 2015).

There is also an existence of a knowledge gap (Miles, 2017) since research done in the local setting, both within the chosen locale and the region, are not yet in existence. Through this study, the researcher could be able to forge a trail ahead which is vital for future researchers as they may use or refute the outcomes of this study.

By incorporating the principles of Structural Equation Modelling in this study, the researcher offers a different approach in the exploration of student engagement and its dimensions. In addition, through the results of this study, the researcher could come up with a framework for student engagement that is context-specific to the chosen locale. It is through these that the researcher could be able to provide results that are novel and essentially useful in the educational field of the chosen setting and beyond.

Statement of the Problem

This dissertation aimed come up with dimensions for students' engagement applicable in the context of the chosen locale. Below are the phases which the researcher undertook to achieve the aim of this dissertation:

Phase 1: Theoretical Derivation of survey items from existing literature

The researcher extracted survey question items using theoretical derivation. This required the reading and identification of literature which would serve as basis in the creation of a items for the survey.

In this phase, the researcher shall seek to answer the following research question:

1. What are the sub-dimensions of affective, behavioral, cognitive, and social engagement?

Phase 2: Model Exploration, Construction, Testing, and Evaluation

In the second phase, the researcher administered an Exploratory Factor Analysis (EFA) to discover underlying structures or factors surrounding student engagement. This was then followed using the Confirmatory Factor Analysis (CFA) for the confirmation of structures belonging to student engagement. In this phase, the researcher answered these research questions:

1. What are the initial sub-dimensions of students' engagement as revealed through the Exploratory Factor Analysis?

2. What are finalized sub-dimensions based on the Confirmatory Factor Analysis?

Phase 3: Intervention and Policy Formulation

In the final phase, the researcher came up with an intervention and policy which are associated with the outcomes of the study.

For this phase, the researcher aimed to answer this research question:

1. What intervention and policy could be made in relation to model derived from the study?

II. METHODOLOGY

Research Design

Creswell and Clark (2017) identify Exploratory Sequential Design as one of the primary designs in Mixed Methods Research (MMR). They explain that the exploratory design process begins with the compilation and scrutiny of qualitative data during the initial phase.

Based on the acquired results, the researcher proceeded to the development phase, where they designed a quantitative feature that was in alignment with the qualitative findings. This was primarily done to facilitate the development of an instrument.

Moreover, the researcher evaluated the developed features. Subsequently, interpretation of the quantitative results was done in light of the initial qualitative findings.

One of the reasons which compelled the researcher to employ the mixed methods designs particularly the exploratory sequential is due to the need for instrument development. Creswell and Clark (2017) noted that researchers may choose to combine methods in research when they intend to make use of the results of one method to assist in the development or refinement of another method. The development is defined to encompass sampling, implementation, as well as measurement decisions.

In this case, the researcher had to employ qualitative research to develop questionnaire and scale items. This entailed that for the matter of where and how the mixing of methods would take place, it happened in the data analysis since the researcher gathered two sets of data. The first part involved gathering the data in qualitative form, while the second phase is the development of items for measurement. Finally, the third phase was the utilization of the developed measurement which shall be administered to a larger number of respondents (Creswell & Clark, 2017). It was through this process of building one data set after the other that the process of mixed methods design is fully appreciated and realized.

Respondents of the Study

The respondents of this study were students from the Schools Division Office of Kidapawan City under District III Secondary.

In the conduct of modelling by means of structural equation, the general rule of thumb is to have 300 or more respondents to achieve factor loadings and address possible cross loadings of the various items for the different dimensions. So, the researcher included 300 respondents in the conduct of the data gathering which was essential for factor analysis (Kyriazos 2018).

The participants of this study were ensured that they remain anonymous and that the information they provided remain confidential. This was made clear to them as they were given informed consent forms for them to become aware of their rights as participants and respondents of this study.

In this dissertation, the researcher cannot identify any potential risk to the safety of those who took part. Instead, they can benefit from this study as they were emancipated and be given the chance to share their experiences and insights in relation to their school experiences especially in terms of academics.

Locale of the Study

The locale of this study is in Kidapawan City, North Cotabato, the Philippines. Specifically, the schools belonging the Schools Division Office of Kidapawan City was considered.

Research instrument

The researcher provides details involved in the instrumentation necessary for this study.

Development Phase:

The researcher would like to give emphasis on the process discussed in the work of Repke et al. (2024). It was noted that the development of the item universe must encompass all potential items that may be incorporated in the measurement instrument. The subsequent step involves generating the items based on theoretical considerations to ensure their adequacy in representing the defined construct. During this process, researchers can draw upon literature reviews, interviews, focus groups, or other qualitative data sources to provide guidance. Finally, the items should be equipped with standardized rating procedures. This would involve a panel of experts assessing the quality of the content for its significance, representation, specificity, and non-ambiguity. In this process, the researcher read contents from existing literature to be able to extract contents that can be used as items for the questionnaire. A semistructured analysis of the literature review was used during this phase (Snyder, 2019). The process entails the identification of recurring themes, theoretical viewpoints, or prevalent concerns within a specific research discipline. This objective is to elucidate the components of a theoretical concept.

Validation Phase:

The extracted items from the instrument underwent the processes of face validation, content validation, and construct validation. The establishment of the instrument's validity and reliability was paramount to its development and application in this study. The purpose of validity is aimed to guarantee that the instrument would measure its intended purpose accurately (Cao & Tran, 2022).

Meanwhile, reliability refers to the constancy or stability of an instrument. An instrument that produces the same information over a period of time is a reliable instrument (Sürücü & Maslakci, 2020).

Face Validation

The researcher had the items subjected to face and content validity. The concern of face validity was whether the test and its items appeared appropriate, sensible, or relevant to the people taking the test. (Allen et al., 2023). It was also through face validity that the items were determined whether it was distressing or judgmental. So, face validation was necessary to ensure that items are not sensitive or degrading to the ones answering the survey. Another importance of face validation is that the items are understandable and relevant as well as easy to answer. It is important to note that face validation, as Repke et al. (2024) notes, is usually a vague and subjective evaluation, That is why it is often considered to be the starting point when researchers seek validity-supporting evidence.

Content Validation

After face validation, the researcher subjected the items to content validation. This section pertains to the methodologies employed to assess the behavior being investigated, as outlined by Roebianto et al. (2023). Generally, content validity is concerned with the wording, format, and display of the items. Moreover, Repke et al. (2024) verbalized that content validation should ensure that the instrument covers all aspects of an indicator variable instead of just a small fraction of it.

Construct Validation

After the abovementioned validation processes, the instrument shall then undergo construct validation (Revelle & Garner, 2022). Construct validation involves extracting data from secondary sources based on theoretical specifications. The next step is to empirically validate the construct. The final step is to post-validate the construct and assess its fitness within the theoretically specified network (Sajid, et al., 2019).

Data Gathering Procedure

In the process of gathering the data needed for this dissertation, the researcher underwent the following procedures in the various processes:

Prior to the commencement of the data collection process, the researcher obtained the requisite approvals from the esteemed authorities from Cotabato College Foundation of Science and Technology (CFCST). This was in the form of an approval sheet which shall grant the researcher to conduct the study to the chosen locale. This communication letter was be signed by the researcher and the dissertation adviser.

Subsequently, the researcher dispatched the communication letter to the Superintendent of the Schools Division of Kidapawan City. The Superintendent's approval was imperative to guarantee that the researcher would receive the necessary support during the data gathering process from the designated district of the Schools Division Office.

During the process of collecting the data needed, the researcher adhered to the selection criteria by applying them to the respondents. This was done to ensure that the sample included individuals who could provide valuable insights and contribute significantly to the instrument's utility. The researcher fears that if the selection is entirely randomized, students who may not be highly or even moderately engaged in school might be included. If this happens, factor loadings might be affected.

Once the respondents were already identified, they were given an online survey questionnaire. In answering the survey questionnaire, the students were given an ample amount of time. This was necessary to guarantee that students properly read and understood the contents of the items of the instrument. Following the data gathering procedure, the researcher successfully collated the survey questionnaires. The researcher's ability to easily collect data was greatly enhanced by the utilization of Google Forms.

After meticulously collating the raw data obtained from the responses of the respondents to the online survey questionnaire, the researcher proceeded to tabulate the numerical data. As elucidated by Kabir (2016), the purpose of tabulation is to facilitate the presentation of a substantial quantity of data within a compact space. In this instance, the researcher synthesized the information collected into a coherent and organized format.

Data Analysis

The analysis of data in mixed methods research studies entails the separate examination of qualitative and quantitative data. For this dissertation, the research first used directed content analysis during the process of theoretical derivation of the items for the instrument. Subsequently, the researcher employed validity and reliability tests to ascertain the instrument's credibility. Subsequently, the researcher has conducted the exploratory factor analysis to investigate student engagement dimensions. Lastly, the researcher utilized Confirmatory Factor Analysis to demonstrate the appropriateness of the dimensions to the construct.

Directed Content Analysis

To analyze data from existing literature, the researcher employed a Qualitative Content Analysis (Kleinheksel et al., 2020). Specifically, they utilized the Directed Content Analysis, as outlined by Hsieh and Shannon (2005). The researcher read the data repeatedly to immerse themselves in it and gain a comprehensive understanding of the entire dataset. Subsequently, they coded the contents based on the pre-determined dimensions as outlined in Kleinheksel et al. (2020). The researcher found Directed Content Analysis to be a viable approach, as it can support and expand upon the existing dimensions.

Exploratory Factor Analysis

In this process, the researcher explored the different dimensions that constituted the construct of student engagement.

Confirmatory Factor Analysis

The Confirmatory Factor Analysis (CFA) process was employed to establish a correlation between the dimensions and the identified construct. One practical application of CFA is in scale development for tests and survey instruments. By utilizing CFA, the researcher was able to assess the statistical significance of the hypothesized model.

As Tavakol and Wetzel (2020) explained, CFA is a theory or model-driven method that aims to assess how properly the data aligns with the projected model or theory. This approach is particularly useful when EFA studies are available for the intended instrument. CFA serves as a statistical tool to examine the internal structure of instruments.

III. RESULTS AND DISCUSSION

Phase 1: Theoretical Derivation of Survey Items

The first phase in the comprehensive survey development process entails the theoretical derivation of survey items based on established engagement frameworks. Drawing on the multidimensional makeup of student engagement, encompassing affective, behavioral, cognitive, and social dimensions, this phase focuses on translating the core concepts and significant behaviors associated with each dimension into unambiguous and quantifiable statements. By systematically aligning survey items with these well-defined themes, the instrument seeks to capture the intricate emotional connections students establish with learning, demonstrate their motivation and participation, employ cognitive strategies, and foster meaningful social relationships within the educational milieu. This theoretical underpinning ensures that the survey items are both valid and pertinent for assessing the intricate dynamics of student engagement.

Sub-dimensions of affective, behavioral, cognitive, and social engagement

Affective Engagement

Affective engagement denotes to the emotional and attitudinal connection students establish with their learning experience. It encompasses how students maintain focus, manage distractions, and actively participate in class through note-taking, questioning, and sharing insights. This form of engagement reflects students' willingness to connect emotionally and intellectually with the subject matter, demonstrating curiosity, critical thinking, and an open mind to diverse viewpoints. When students are affectively engaged, they not only assimilate information but also develop the capacity to analyze, evaluate, and generate original ideas, thereby fostering a deeper and more meaningful learning process (Tay & Lam, 2022.

Behavioral Engagement

Behavioral engagement centers on the observable actions and motivations that students manifest in their academic endeavors. It encompasses students' interest in their coursework, their eagerness to take part in classes, and their active participation in academic events. Furthermore, this type of engagement captures the emotional responses students experience throughout their learning journey, including satisfaction derived from completing assignments and a sense of pride in their accomplishments, and challenges including boredom, frustration, or anxiety. Behavioral engagement underscores the dynamic interplay between students' actions and their emotions, emphasizing the significance of motivation and perseverance in achieving academic success (Symonds et al., 2024).

Cognitive Engagement

Cognitive engagement pertains to the mental exertions and strategic approaches students employ to their learning tasks. It encompasses their active participation in discussions, enthusiastic completion of assignments, and proactive pursuit of opportunities beyond the classroom to enhance their understanding. This engagement is characterized by persistence, problem-solving, and a strong motivation to attain high academic standards. Cognitively engaged students demonstrate resilience by overcoming challenges, experimenting with diverse learning methods, and maintaining their focus and enthusiasm throughout their educational journey (Yang et al., 2025). This resilience ultimately leads to more effective and enduring learning outcomes.

Social Engagement

Social engagement underscores the paramount significance of interpersonal relationships and a sense of community within the educational milieu. It encompasses students' comfort in engaging with peers and educators, collaborating on group endeavors, and participating in social and extracurricular activities. This form of engagement nurtures supportive relationships and a sense of belonging, which are essential for students' emotional well-being and academic achievement. By engaging socially, students cultivate communication skills (Ramzan et a., 2023), establish networks, and contribute to the campus community, fostering a positive and inclusive environment that augments their overall educational experience.

Theme	Significant Statements
Affective Engagement	Pay attention to the lectures and discussions
	• Avoid distractions during class (e.g. using cellphones, taking with classmates
	Take detailed notes during lectures and discussions
	Ask relevant questions during class
	Actively listen and process the information presented
	Participate in group activities and discussions
	Complete assigned readings and assignments on time
	Ask thoughtful questions about the course material
	Offer my own insights and perspectives during class discussions
	Am willing to share my ideas and opinions
	Can analyze and evaluate information from different sources
	Can identify and articulate different perspectives on a given topic
	Can identify assumptions and biases in arguments
	Can apply critical thinking skills to problem-solving
	Can generate original ideas and solutions
Behavioral Engagement	• Find my academic work interesting and engaging
	Am motivated to learn and succeed in my studies
	• Am curious about the topics I study
	Am excited to attend classes and participate in academic activities
	Am eager to learn classes and participate in academic activities
	Feel satisfied when I complete assignments successfully
	Enjoy participating in class activities and discussions
	Feel proud of my accomplishments in my studies
	• Feel happy when I understand the course material
	Feel a sense of accomplishment when I complete a challenging task
	Feel bored during classes
	Feel frustrated when I struggle with my academic work
	• Feel overwhelmed by the workload
	• Feel anxious about exams, quizzes, or recitations
	• Feel discouraged when I make mistakes
Cognitive Engagement	Actively participate in class discussions
	Volunteer to answer questions or share my ideas
	Complete assignments with effort and enthusiasm
	Attend classes regularly and on time
	Seek out opportunities to participate in extra-curricular activities related to my studies
	• Put in extra effort in completing assigned tasks
	Seek help from instructors or classmates when I need it
	Am willing to spend extra time studying and practicing
	Am motivated to achieve high grades
	• Am willing to go the extra mile to succeed
	• Do not give up easily when faced with challenges
	Am able to overcome obstacles and setbacks
	• Am willing to try different approaches to solve problems
	• Am persistent in completing tasks
	Am able to maintain my motivation throughout my academic pursuits

Table 1. Themes and Significant Statements on Student Engagement

Social Engagement	• Feel comfortable interacting with my classmates and peers
	• Have supportive relationships with my classmates and peers
	Enjoy collaborating with my classmates and peers on group projects
	• Feel comfortable asking for help from my classmates and peers
	• Participate in social activities with my classmates and peers outside of class
	• Feel comfortable interacting with my teachers
	Have supportive relationships with my teachers
	• Feel comfortable asking for help from my teachers
	• Feel like my teachers are approachable
	• Feel valued and respected by my teachers
	• Participate in student organizations or clubs
	Attend campus events and activities
	Volunteer to help with campus initiatives
	Participate in school-sponsored social activities
	• Feel a sense of belonging to the campus community

V. SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Summary

The study involved the theoretical derivation of survey items aimed at measuring student engagement across its multidimensional facets: affective, behavioral, cognitive, and social. Drawing from established engagement frameworks, this phase focused on translating core concepts and key behaviors within each dimension into clear, quantifiable statements. Affective engagement items captured students' emotional and attitudinal connections to learning, including their focus, curiosity, critical thinking, and willingness to share ideas. Behavioral engagement items reflected observable actions and motivations such as class attendance, participation, persistence, and emotional responses like satisfaction or frustration. Cognitive engagement statements emphasized mental effort, strategic learning approaches, problem-solving, resilience, and motivation to achieve academic success. Social engagement items assessed students' comfort and participation in social interactions, collaboration, supportive relationships, and sense of belonging within the educational community. The outcome of this phase was a comprehensive set of well-aligned survey items, each designed to validly and reliably represent the intended engagement dimension. These items, summarized in a detailed table of significant statements, provide a theoretically grounded foundation for subsequent empirical validation and refinement. In essence, this phase ensured that the survey instrument would effectively capture the complex, dynamic nature of student engagement, setting the stage for further testing and application in educational research.

The study then focused on model exploration and construction, aiming to empirically uncover and validate the underlying structure of student engagement as measured by the newly developed survey. The process began with rigorous statistical checks to ensure the data's suitability for factor analysis. The Kaiser-Meyer-Olkin (KMO) Measure of Sampling Adequacy yielded a value of 0.751, indicating that the sample and inter-item correlations were adequate for reliable factor extraction. Bartlett's Test of Sphericity was highly significant ($\chi^2 = 5858.917$, df = 903, p < .001), confirming that the variables were sufficiently interrelated to justify the use of factor analysis.

With these prerequisites met, exploratory factor analysis (EFA) was conducted using principal component analysis with rotation. Key statistical tools, such as the scree plot and the total variance explained, guided the determination of the optimal number of factors to retain. The scree plot revealed a distinct "elbow" at the thirteenth component, indicating that thirteen factors captured the most meaningful variance in the data, with additional factors contributing minimally. This finding was corroborated by the variance analysis, which showed that these thirteen factors collectively accounted for approximately 66.66% of the total variance-a robust result for social science research, given the complexity of the construct.

Each of the thirteen factors, or sub-dimensions, reflected unique and interpretable aspects of student engagement. For example, Factor 1 (Proactive Engagement and Teacher Rapport) was defined by high loadings on comfort with seeking help from teachers, willingness to try different problem-solving approaches, and persistence in completing tasks. Other factors included Academic Engagement and Balance, Active Intellectual Participation, Critical Thinking, Belongingness and Participation, Self-Perception and Commitment, Intellectual Curiosity, Academic Confidence and Support-Seeking, Effort and Responsibility, Resilience and Drive, Active Social Participation, Emotional Setback, and Positive Teacher Relationship and Academic Interest. Each sub-dimension represented a distinct blend of behavioral, cognitive, emotional, and social elements, highlighting the multifaceted nature of student engagement.

Conclusion

This comprehensive three-phase study systematically developed, explored, and validated a multidimensional model of student engagement. The model encompasses affective, behavioral, cognitive, and social dimensions. Phase 1 established a robust theoretical foundation by generating a comprehensive set of survey items aligned with established frameworks. Phase 2 empirically explored the structure of engagement using exploratory factor analysis, revealing thirteen meaningful sub-dimensions that capture the complexity of students' academic experiences.

Recommendations

The following are the recommendations based on the results of the study:

- 1. School administrators should adopt a holistic approach to promoting student engagement by supporting programs and policies that foster behavioral, cognitive, emotional, and social engagement. The validated five-factor model emphasizes proactive engagement, critical thinking, and positive teacher-student rapport. Administrators should prioritize professional development that equips teachers with strategies to build meaningful relationships and stimulate intellectual curiosity. An inclusive school environment is crucial for student engagement, as it fosters a sense of belonging. Regular use of the validated survey instrument is recommended to assess and monitor student engagement levels and inform data-driven decisions for school improvement.
- 2. In the context of student engagement, teachers play a pivotal role. The study underscores the necessity of implementing classroom strategies that transcend conventional instruction. The five-factor model elucidates how factors such as proactive engagement, intellectual curiosity, and self-perception influence students' academic participation. Consequently, educators are encouraged to design lessons that foster active participation, critical thinking, and collaborative learning. Furthermore, cultivating a supportive and approachable classroom environment enhances teacher-student rapport, which the study identifies as a crucial component of engagement. Additionally, educators should regularly reflect on their instructional practices utilizing the survey findings to pinpoint areas for improvement and tailor interventions that cater to students' diverse engagement requirements.
- 3. Students should take ownership of their learning by being proactive in class, seeking help when needed, and applying effort and responsibility in academic tasks. Recognizing the importance of self-perception and intellectual curiosity, students should develop a growth mindset and embrace challenges as opportunities to learn. By becoming aware of their engagement patterns, students can reflect on areas for improvement and take meaningful steps to enhance their academic experience.
- 4. Stakeholders, including parents, community leaders, and local education officials, are urged to support initiatives that promote student engagement both inside and outside the classroom. Collaborative efforts foster an environment conducive to student motivation and success. Stakeholders can contribute by providing resources for student-centered activities, extracurricular programs, and learning spaces that encourage collaboration and inclusion. They should also advocate for and support training programs for educators that improve engagement strategies. Regular collaboration between schools and the community sustains high levels of student engagement and academic performance.

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