The Path Of Influence Of Contributory Variables To Student Engagement

Gina G. Bendejo, Gloria P. Gempes

Abstract: Around the globe, one of the key challenges facing educators is finding ways to engage students. This study aimed to determine the combined and singular influence of the identified contributory variables to student engagement. A total of 425 Grade 10 students of the English 10 subjects in 17 public secondary schools of Region XII, Philippines, were chosen as the respondents of the study. Mean, Pearson-r and Multiple regression analysis were the statistical tools used in the data analysis. Validated adapted questionnaires were used to obtain information from the respondents. The result of the study indicates that the singular influence of each contributory variable (school climate, classroom management strategies and parental involvement) to student engagement is significant. Likewise, the combination of the three contributory variables significantly influenced student engagement. Parental involvement is the variable that best influenced student engagement.

Index Terms: education, school climate, parental involvement, classroom management strategies, student engagement, Philippines

1 INTRODUCTION

High rates of school drop-out is apparently a universal problem. Poor engagement of the student, poor retention, and poor learning achievement are prevalent too [1], [2], [3]. An increased number of disengaged learners resulting to lack of active learning opportunities in their classroom and in their school needs a deep inquiry in minimizing the problem as pointed out by the International Center for Leadership in Education [4]. Student engagement is parallel to the achievement of students and to their social cognitive development, but research over a span of years documented low levels of engagement, especially in the classroom [5]. The concept of school engagement attracts increasing attention thus, presenting a possible remedy to deteriorating student engagement. It can be one among the many factors in the concept of high achievement of students. It may address problems such as low achievement, boredom and alienation, and high dropout rates [6]. Increasing number of educators and school administrators are interested in obtaining data on student engagement and disengagement for needs assessment, diagnosis, and preventive measures. This study may of help to this universal intent.

Cognizance of the importance of student engagement as an academic concern, the researchers ventured to investigate the possible contributory variables that may have profound effect on it. Among the many variables with bivariate significant relationships with student engagement as underscored in numerous literature are: school climate, classroom management strategies, and parental involvement.

A number of authors were considered in this study to come up with logical measures for each of the above-mentioned variables. The variable on school climate was anchored on the report of Baltimore Education Research and Consulting [7], a research provider as cited by the National School Climate Council [8] with the following indicators: safety, teaching and learning, interpersonal relationship, institutional environment, and staff relationship. The variable on classroom management strategies was from Shaver [9] with the following indicators: teacher – organizing strategies, teaching management strategies, teacher-student relationship strategies, and teacher punishment and reward strategies. Parental involvement was patterned from the work of Epstein [10] with the following indicators: parenting, learning at home, school volunteering, decision making, community involvement and communicating. The dependent variable, school engagement of students was based from the study of Lippman and Rivers [11] with the following indicators that includes: behavioral engagement; emotional engagement; and cognitive engagement.

In the Philippines, student engagement in any school-related activity is at the lowest condition [12]. Many students leave school early due to the lack of interest in going to school due to poor school condition and the school parental participation rates is at the very minimal level [13]. Basic education for centuries had been undertaken with very little parent participation [14]. Commonly, parents tend to think they have less responsibility when their children are admitted in school and expect the rest to be followed up by school authorities [15]. Providing a positive learning environment is not only the responsibility of the schools but it is the crucial accountability of the parents [16], [17].

In addition to parental involvement, a number of researches are conducted showing results of positive school climate on learning [18], [19]. Indeed, Camilleri [20] declared that when a school provides a secure and proper learning place it will give assurance of belongingness that encourages learning and student engagement. A growing indication of enjoyable school climate manifests a good quality and character of academic life that positively raise student engagement in the classroom because of the comfort being felt.

Another variable that may have significant bearing to student engagement as obtained from various readings is classroom management strategies. Numerous researches supported the basic role of classroom management
strategies of teachers in digging out students’ capacity to learn effectively. Teachers are expected to supervise their students efficiently and effectively and correct the learners’ behavior in a caring way that is encouraging and motivating thus retaining the proper behavior according to the studies of Aliakbari and Bozorgmanesh [21]. Appropriate classroom management of teachers with regard to classroom atmosphere encourages less chaos, less disorder, and less negative behavior of the students while inside the classroom, thereby offering proper instruction, and addressing the emotional and cognitive needs of the students [22].

This study has three focal lenses that serve as the guidepost in undertaking the different components of this undertaking. First is from Marks [5] who confirmed that positive school climate can influence student level of engagement and connectedness for the reasons that school climate becomes an international goal due to its recognized effect on school quality and student outcomes.

Another author, Marzano and Marzano [23] underscored that effective classroom management is the basic foundation for all student engagement that would become the foundation of their academic success. He theorizes that a properly managed classroom provides an environment leading to an effective teaching and learning process. In addition, a researcher [24] quoted that the magnitude of the effect of parental involvement likely promotes student engagement leading to academic success. Both stated that an effort from parents is consistently associated with higher levels of achievement of their students. Substantial involvement of parents promotes student engagement.

When learners observe and appreciate that their school, teachers, and their parents are collaborating with one another they will be highly motivated to work hard in order to attain success in school [25], [26]. Thus, the active coordination between the school, teacher, and parents will likely spur active and lasting student engagement necessary for students’ success in the future. This is the direction that the researchers would like to establish in this study.

Although there are ample researches comprising school climate, classroom management strategies, parental involvement and student engagement, the researcher has not come across a study on the interrelationships of these four variables in a single study. This makes this study a possible contribution to new knowledge and an important blue print in achieving its purpose of providing inputs to policy makers in the academe regarding the possible synergetic contribution of the variables under study to student engagement.

The study aimed to test the following hypotheses: That there are no significant relationships between each of the identified contributory variables and student engagement; and that the singular and combined influences of the contributory variables on student engagement are not significant.

2 METHODS

The associational research design employing multiple regression was used in this study. Associational also known as correlational study examines the relationships between the contributory variables and student engagement. With the employment of multiple regression, this study investigates the possibility that one or more contributory variables may influence student engagement.

A sample of 425 Grade 10 students enrolled during the school year 2016-2017 in public secondary schools of North Cotabato Division in Region XII, Mindanao, Philippines were involved in the study. This number of samples exceeds the maximum number of 400 respondents using Slovin’s formula at .05 significance level. This study adapted questionnaires from different sources. These include the following: National School Climate Center Scale (NSCC, 2012) [27], Classroom Management Strategies Scale developed from Shawer (2010) [9] as adapted by Aliakbari and Bozorgmanesh (2014) [21], Parental Involvement Scale adapted by Davis and Yang (2013) [28] from Epstein (2001) [10] and Student Engagement Scale from the combined concepts of Lippman and Rivers (2008) [11]. The instrument was contextualized to the local setting and its reliability was established using test retest method which yielded the reliability coefficient of 0.78. The data collected were analyzed using Pearson r and regression analysis tested at 0.05 level of significance and guided by the following 5-point likert scale:

<table>
<thead>
<tr>
<th>Range of Means</th>
<th>Descriptive Level</th>
<th>Interpretation</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.20-5.00</td>
<td>Very High</td>
<td>Variable is always manifested</td>
</tr>
<tr>
<td>3.40-4.19</td>
<td>High</td>
<td>Variable is oftentimes manifested</td>
</tr>
<tr>
<td>2.60-3.39</td>
<td>Moderate</td>
<td>Variable is sometimes manifested</td>
</tr>
<tr>
<td>1.80-2.59</td>
<td>Low</td>
<td>Variable is seldom manifested</td>
</tr>
<tr>
<td>1.00-1.79</td>
<td>Very low</td>
<td>Variable is never manifested</td>
</tr>
</tbody>
</table>

An endorsement letter was obtained from the Dean of Graduate Studies of the University of Mindanao for the conduct of the study addressed to the identified learning institutions. After the letter was approved for the survey to be conducted in the selected schools, the researchers provided letters to every school principal, department heads of every public secondary schools asking permission to conduct the study. After the approval of the school heads, the questionnaires were administered to Grade 10 male and female students in North Cotabato Division Schools. The Grade 10 student-respondents were randomly selected on the date and time designated for the conduct of
the survey using labeled questionnaires assigned in each section. The study covered Grade 10 students enrolled during the school year 2014-2017 who had stayed three years up to four years in their current schools.

Questionnaires were distributed with the assistance from the Department Heads together with their subject teachers inside their classrooms, instructions were given in filling-in the questionnaires. The filled-in questionnaires were returned to the subject teacher and were gathered before the end of the class period by the researcher. All respondents’ information were kept confidential and responses were coded to ascertain the number of students who participated in each school district. These responses were coded numerically by the researchers. Data analysis was made utilizing statistical tools like descriptive statistics, pearson r and regression analysis.

3 RESULTS

Level of School Climate, Classroom Management Strategies, Parental Involvement and Student Engagement

The level of school climate, classroom management strategies, parental involvement and student engagement in North Cotabato Division Schools is presented in Table 1. The indicators of each variable are shown with their corresponding mean ratings ranging from 4.19 to 4.34 for school climate with an overall mean of 4.25 or very high; 3.79 to 4.14 for classroom strategies with an overall mean of 3.98 or high; 3.93 to 4.09 for parental involvement with an overall mean of 4.02 or high; and 3.73 to 4.15 for student engagement with an overall mean of 3.93 or high. High level means the variables/indicators are oftentimes manifested while the very high level indicates being always manifested. Among the three independent variables, school climate registered very high level, an indication of a positive school environment in that particular place. It could be noted that the standard deviation of all the mean scores is below 1.0 which is the typical standard deviation for a 5-point likert scale, denoting consistency of responses.

Table 1

<table>
<thead>
<tr>
<th>Indicator</th>
<th>SD</th>
<th>Mean</th>
<th>Descriptive Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Safety in the Campus</td>
<td>0.70</td>
<td>4.19</td>
<td>High</td>
</tr>
<tr>
<td>Teaching and Learning</td>
<td>0.56</td>
<td>4.30</td>
<td>Very High</td>
</tr>
</tbody>
</table>

In Table 2 the significance on the relationship between the independent variables and student engagement is presented. It could be seen that all the three contributory variables when correlated with student engagement registered r-values with $p < 0.05$, indicating significant relationships, hence rejecting the null hypothesis of no relationships. The relationships point out that those students who have enjoyed school climate are more likely to have higher student engagement not only in
the classroom activities but also to the outside academic and non-academic related activities. In addition, the results indicate that students with more positive classroom management experiences from their teachers are more likely to have higher engagement.

Table 2
Significance on the Relationship Between the Contributory Variables and Student Engagement

<table>
<thead>
<tr>
<th>Student Engagement</th>
<th>Contributory Variable</th>
<th>r-value</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>School Climate</td>
<td></td>
<td>.410</td>
<td>.000*</td>
</tr>
<tr>
<td>Classroom Management Strategies</td>
<td></td>
<td>.495</td>
<td>.000*</td>
</tr>
<tr>
<td>Parental Involvement</td>
<td></td>
<td>.591</td>
<td>.000*</td>
</tr>
</tbody>
</table>

*p<.05

Importantly, students whose parents are aware of their responsibilities to be supportive to their academic needs are likely to be more engaged in their studies than those whose parents who are less supportive.

Significance on the Influence of School Climate, Classroom Management Strategies and Parental Involvement on Student Engagement

Presented in Table 3 is the regression analysis of school climate, classroom management strategies and parental involvement as contributory variables to student engagement.

Table 3
Significance on the Influence between School Climate, Classroom Management Strategies and Parental Involvement on Student Engagement

<table>
<thead>
<tr>
<th>Student Engagement (Indicators)</th>
<th>β</th>
<th>B</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>School Climate</td>
<td>.103</td>
<td>.094</td>
<td>2.026</td>
<td>.043</td>
</tr>
<tr>
<td>Classroom Management Strategies</td>
<td>.244</td>
<td>.185</td>
<td>3.699</td>
<td>.000</td>
</tr>
<tr>
<td>Parental Involvement</td>
<td>.445</td>
<td>.427</td>
<td>8.305</td>
<td>.000</td>
</tr>
<tr>
<td>$R$</td>
<td>.619</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>$R^2$</td>
<td>.383</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>$F$</td>
<td>87.135</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>$P$</td>
<td>.000</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*p<.05

The three independent variables are found to be significant predictors of the dependent variable. The analysis shows that the coefficient of parental involvement has the highest beta coefficient of 0.427. It indicates that parental involvement has the highest degree of influence on student engagement followed by classroom management strategies with 0.185 and school climate with 0.094.

As gleaned from the table, all standardized beta coefficients are positive and highly significant (p<0.05). The R² of .383 conveys that 38.3 per cent of the variation in student engagement is due to the variations in school climate, classroom management strategies, and parental involvement. The remaining 61.7 per cent is due to the variation of other variables not included in this study.

Path of Influence

The path of influence of each contributory variable and their combination is illustrated in Figure 3. Each path displays significant coefficient evidenced by the corresponding probability value (p<0.05). The simple lines are the paths of each of the contributory variables showing significant influence on student engagement. The bold lines indicate the combined influence of the three contributory variables on student engagement. The significant singular path from school climate to student engagement shows a coefficient of .094 (p<0.05); classroom management strategies to student engagement .185 (p<0.05) and .427 (p<0.05) from parental involvement to student engagement. The combination of all the three contributory variables, in bold lines, has a significant path of .383 (p<0.05). The singular significant path of each of the contributory variables implies that each of them can stand alone in directly influencing student engagement. Their combination, therefore, provides a considerable value in influencing student engagement.
4 DISCUSSION
Level of School Climate, Classroom Management Strategies, Parental Involvement and Student Engagement

The very high rating on school climate is an indication that Grade 10 students feel secure inside their respective schools. They experience that teaching and learning strategies are very supportive to their development and to their relationships with other students and school staff, and they are enjoying clean facilities. This is an actualization of the statement of Gregory et al. [29] that safety measures inside the campus is important to students because it creates a sense of security in a school that supports their learning. This explains why the students rated school climate with very high rating. In addition, some sources [30], [31], indicated that a positive school climate is characterized by caring and supportive interpersonal relationship among learners and educators and this is being experienced by the respondents as evidenced by the very high rating on this aspect.

The results of classroom management strategies among teachers in North Cotabato Division school is high since classroom management strategies are practiced oftentimes. These strategies are expected to be further strengthened since it supports the claim of different authors [32], [33], [34], [35], [36] in their studies suggesting that teachers must be interested in the emotion of their students by keeping an eye on them and should have a listening ear on them as carefully as possible to positively gain success in managing a classroom. These are being experienced by the students who rated high in terms of the level of classroom management strategies of their teachers, among others.

The respondents of this study assessed the school’s effort for parental involvement as oftentimes manifested, or high. Among those efforts are helping families establish home environment to support all children as students design effective forms of communication about school programs and children’s progress, recruit and organize parental help and support, and include parents in school decisions. All of these have been appreciated by students hence their high rating for parental involvement, a substantiation of the declaration of Henderson and Mapp [37] that students are willing to take active roles in assisting communication between home and school. In fact, some authors [38], [39] espoused that the key to successful high performing schools is to make sure that parents and the school are working together as allies. Sadly, Lai and Vadeboncoeur [40] noted that the obligation of the school to encourage parental involvement nowadays become a passive act, rather that a genuine effort.

The high level of student engagement is due to the high rating given by the student-respondents in line with their engagement as the result of the desirable feeling that they experienced especially in the behavioral engagement where they manifested happiness in the classroom, and they liked being at school. This supports the claims of different authors [41], [25], [42] who stated that desirable climate in the school is connected to higher student engagement. Some students feel the excitement in terms of school work and consider the classroom as a fun place to be since they foster a certain degree of relationship while attending school in which they enjoy and have fun. Hence, students who are actively engaged in academic undertakings are committed to learning and experience feelings of pride and attachment in their school, among others.

Significance on the Relationship between School Climate and Student Engagement

The test of relationship between measures reveals that there is a positive relationship among the four variables. This implies that school climate, classroom management strategies, and parental involvement are predictors of student engagement for the success of students in their academic endeavors. The findings of this study supports the claim of Fullarton ( [43] who found out that students who experienced positive school climate (high quality teachers, effective discipline, high learning and positive school spirit) and very supportive parents were likely to encourage deeper student engagement.

Numerous studies have concluded that positive school climate is critical to fostering high student engagement in accordance to the survey of National Longitudinal Study of Adolescent Health [44] reflected in the study of McNeely, Nonnemaker, and Blum [45]. Both claimed that there is a certain degree of relationship between school climate and student engagement. In line with classroom management strategies in relation to student engagement, it was pointed out in the study of McNeely et al. [46] that engagement is significantly lower in schools with difficult classroom management climates. As to the relationship between parent involvement and student participation, there are pieces of evidence that positively affect the behavior of students and their social responses according to [47].

When students reported feelings of support both from home and school, they tend to have more self-confidence, feel school is important and as a result do better in school. In addition, Darsch, et al. [48] mentioned that improved communication between teachers and parents is associated with increased student involvement as measured by homework completion, on-task behavior and class participation. Researches on parent involvement have identified a generally positive association between engagement of parents in the education of their children and its outcomes [49], [50], [51]. Similarly, studies on academic intervention showed that an effort to improve student engagement is effective when parents are involved [52].

In addition, Christenson and Sheridan [53].
further observed that students are highly influenced by the capacity of school, parent involvement, and peers to provide consistent feedback, and constant support to learning as corroborated also by Appleton, et al. [54] and Furlong [55] who cited that actively engaged students in school in line with its commitment to learning (cognitive engagement) have feelings of pride and attachment regarding their school engagement (emotional engagement). Furthermore, according to the National Longitudinal Study of Adolescent Health [56], numerous studies have concluded that a positive school climate is critical to spur a high level of student engagement.

Significance on the Influence of School Climate, Classroom Management Strategies and Parental Involvement to Student Engagement and their Paths of Influence

One among the many purposes of this study is on determining the influence of the three variables on student engagement namely: school climate, classroom management strategies, and parental involvement. The result of regression analysis conveyed that the three variables significantly influence student engagement in their singular and combined capacities. This is aligned with various researches conducted to show the effects of positive school climate on student engagement. Indeed, an author [20] pronounced that when a school climate provides a secure and proper learning place it will give assurance of belongingness that encourages learning and engagement.

Meanwhile, a number of researches have been conducted to show the effects of positive school climate on learning which are aligned with the results of the study. A highly effective school climate initiated by teachers, administrators and staff can positively influence intellectual growth and postulates student active engagement in order to learn. As a result, in a positive school climate everyone would feel safe, respected, welcomed and supportive of student engagement in any school work. For a positive school climate, it is also important to promote positive relationships as emphasized by Nagler [57] in her study. Furthermore, improving school climate is one among the many factors to increase student engagement resulting to positive academic achievement, school safety, school completion, teacher retention, healthy social interactions, and student well-being [58], [59].

On the significant influence of classroom management to student engagement various researchers promoted a number of researches that the effectiveness of teachers results to higher student engagement. Moreover, studies from various countries (e.g., Philippines, New Zealand & China) pointed out certain elements of classroom management strategies that intensify student engagement in the classroom. Each study concluded that there is a positive linkage among classroom management and student engagement thus, promoting academic success of students. According to Evans, Broad, & Rodriguez [60] effective learning activities in the classroom initiated by the teacher lead to changes in the behavior of students and engaged themselves in any-classroom-related activities.

Moreover, researchers viewed classroom management primarily as a discipline and management of student misbehavior. However, successful teaching requires more than controlling student behavior. In the study of Evertson and Harris [61], both mentioned that classroom management changed from describing discipline practices and behavioral interventions to serving as a more holistic descriptor of teachers’ actions in orchestrating supportive learning environments, encouraging student engagement and building community. In addition, Brophy [62] stated that the most successful teachers approach management as a process of establishing and maintaining effective learning environments that intensifies student’s curiosity to learn thus, promoting them in engaging classroom activities organized by the teacher.

The significant influence of parental involvement to student engagement is a substantiation of Conway and Hautenville’s [24] statement that parental effort is commonly associated with higher levels of achievement, and the effect of parental involvement is substantial in promoting student engagement leading to academic success. Thus, this involvement has a strong effect on student engagement in school activities. The article mentioned above emphasizes that the support system that students acquire from home is of equal value along with his brain power, work ethics and genetics that works together in the accomplishment of his goal in life. Despite its lack of definition, parent involvement always has an influence on student learning and engagement. In fact, in the study of Carr, Weigand and Hussey [63] they found out that parents make a critical contribution to the active engagement of their students from early childhood through high school. Parents were the most influential social agents on the task orientation of student’s intrinsic motivation, and physical competence hence, engaging in various class work.

4.1 Conclusion

The findings of the study confirmed the theoretical assumptions on the influence of the three independent variables namely: school climate, classroom management strategies, and parental involvement to the dependent variable on student engagement. In addition, the relationships of the independent variables to the dependent variable have been established in this study. The findings provide empirical evidences that deliberately referred to the school climate, classroom management strategies, and parental involvement to be the contributory factors of student engagement. Thus, the respondents are amenable with the idea that school climate, classroom management strategies, and parental involvement are the very reason for their active engagement in school and out of school activities as reflected in their responses.

Moreover, the students have witnessed and underscored that classroom management strategies of the teachers are manifested most of the time and practiced daily that yielded high level result. Meanwhile, parental involvement is of high level, this is an indication that the parents at present are very supportive and concerned in the academic success of their students. It was also found out in the study that the students are not passive and
have developed a good relationship with their teachers that yielded a high level result in terms of their engagement. This is indicative of the government’s program that the school must be student-centered and there are certain laws created in favor of the student’s rights. Furthermore, classroom instruction nowadays is learner-centered resulting to the student’s active engagement inside and outside classroom activities.

The result is a substantial confirmation of the propositions laid down in the theoretical framework; school climate that can positively impact student level of engagement [64]); effective classroom management is the basic foundation for all student engagement [65]; and the magnitude of the effect of parental involvement would likely promote student engagement leading to academic success.

4.2 Recommendations

Based from the foregoing findings and conclusions, a number of recommendations are offered. The very high level of school climate suggests that it is very conducive for the learning of students due to the encouraging atmosphere, and very supportive administration. However, appropriate measures for its sustainability is highly encouraged. Meanwhile, classroom management strategies of teachers with a high rating need to be further enhanced to obtain a very high rating by upgrading the present strategy to adapt to the 21st century skills. The teachers must be exposed to trainings, counseling, and re-orientation and so with the students. In line with parent involvement, teachers must encourage the parents to be constantly active in the education of their children. Hence, parents and the educators must work collaboratively in furthering the student’s active engagement in school. Furthermore, to improve student engagement the school must provide learning opportunities by designing mechanisms that will actively involve students in different activities inside and outside the campus. The researchers recommend the necessary support for the enhancement and sustainability of school climate, classroom management strategies, and parental involvement so that the students will be enthusiastic to positively engage in any academic and non-academic undertaking.

References


Boston College Press.


