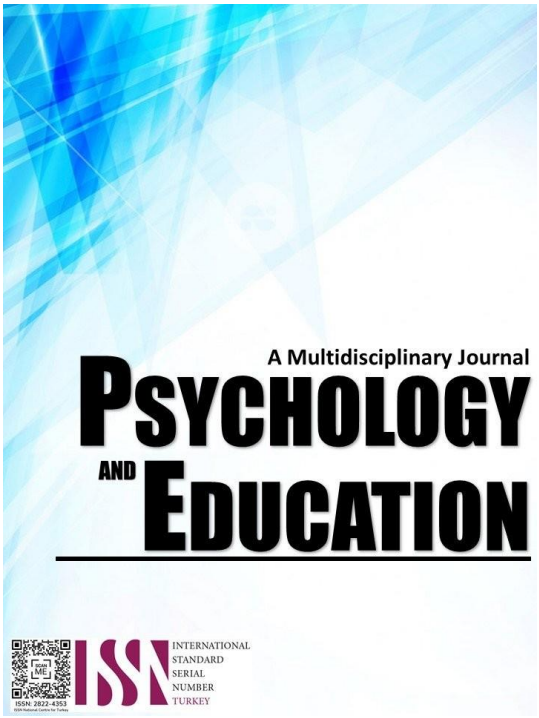
UNVEILING THE PRIMITIVE EFFECTS OF A CONGESTED CLASSROOM: A DESCRIPTIVE APPROACH



PSYCHOLOGY AND EDUCATION: A MULTIDISCIPLINARY JOURNAL

Volume: 19
Issue 9
Pages: 963-971
Document ID: 2024PEMJ1816
DOI: 10.5281/zenodo.11183094
Manuscript Accepted: 04-11-2024

Psych Educ, 2024, **19**(9): 963-271, Document ID:2024PEMJ1816, doi:10.5281/zenodo.11183094, ISSN 2822-4353
Research Article

Unveiling the Primitive Effects of a Congested Classroom: A Descriptive Approach

Ranreeve R. Lapes,* Jayson E. Cababat, Ralph P. Pespeñan
For affiliations and correspondence, see the last page.

Abstract

A congested classroom was one in which the number of students exceeded the ideal level, causing disruption to the teaching and learning process and potentially impeding student engagement and performance. This research aimed to unveil the primitive effects of a congested classroom and the extent of its impact on the well-being and learning processes of Grade 12 General Academic Strand (GAS) and Humanities and Social Sciences (HUMSS) students at Talisay City National High School. A descriptive approach was utilized in this study with a sample size of 165 respondents taken from the eight sections of GAS and HUMSS using stratified random sampling and Slovin's formula with a 5% margin of error. The collected data were analyzed using a weighted mean and percentage. The research findings revealed an average weighted mean of 2.87 with an interpretation of "Often", implying that the primitive effects of a congested classroom harmed students' well-being and learning processes. The researchers concluded that the student's well-being and learning processes in terms of classroom compatibility and health-related concerns were certainly influenced by classroom congestion.

Keywords: *congested classroom, mobility, classroom compatibility, health-related concerns, a descriptive approach*

Introduction

Congestion was defined as overcrowding, which occurred when an area or place became packed and caused problems. In an academic context, a class was considered overcrowded when learners of the same setting exceeded the required number of students in a classroom. This led to inadequate seating arrangements, space constraints, and high student-teacher ratios, further causing problems in the processes of teaching and learning, resulting in ineffective communication and collaboration (Siddiqui, 2018). This was a problem not only for students but also for teachers because overcrowded classes were the cause of poor instruction delivery, which affected the teaching-learning process and had negative effects on student's academic performance as teacher ability and adaptability can be factors in providing effective learning in a congested environment (Ahmad et al., 2018). The importance of individualized attention to each student in a congested classroom can create opportunities for active learning and student participation, which hinders students' sense of belonging and overall investment in the learning process due to the lack of individualized attention in a congested classroom will ultimately affects their academic performance (Cooper & Fry, 2020). Furthermore, Riley (2023) found that a student must have a sense of belonging to their academic pursuit as it increases their confidence to pursue those goals and provides a safe space to connect with others.

Congestion also had a wide range of primitive effects on health-related concerns that affected learning processes and had a negative impact on academic performance, such as physical, mental, and psychological health. Some of these health concerns include stress, discomfort, anxiety, agitation, depression, sedentary behavior, the spread of infectious diseases, colds, influenza, physical harm, reduced concentration, and more (Ahmad & Amirul, 2017; Redondo-Flóre et al., 2022; Harvard Business Publishing Education, n.d.; Ho et al., 2016). These health concerns not only affect the well-being of students but also the learning processes, which negatively impact academic performance. Biggs et al. (2017) mentioned that students encountered stress on a daily basis while conquering obstacles in their academic pursuits. Students felt underprepared to handle the demands of a circumstance, which led to stress, this is also the reason why comfort is important for a student in a classroom on a daily basis. Lin et al. (2023) cited that comfort is important for students as it relieves stress, eases any physical, emotional, and mental health issues, and provides a sense of positivity and strength in one's capacity to handle difficulties and crises.

Focus is also a staple for students' academic pursuits, but due to the congested environment, it is harder to achieve because of distractions. Jackw (2021) emphasized the importance of focus, which is known as being in a zone, a mental state in which a person performs to immerse themselves in an energetic focus, helping students' minds to be calm and positive, allowing them to complete tasks efficiently without interruption. According to Plass and Kalyuga (2019), emotion and cognitive load are interconnected during the learning process in four ways, emotion can be viewed as an additional cognitive load competing for limited cognitive resources, and it can also impact the encoding, storage, and retrieval of information even before awareness of the material, emotion can also affect intrinsic cognitive load, particularly when emotion regulation is a part of the learning outcomes, as emotion plays a role in motivation and influences the amount of mental effort invested in learning.

Ahmad et al. (2018) focused solely on teachers/educators' capability and adaptability to provide effective learning processes in a congested environment rather than the students' well-being in determining the effects of a congested classroom on their learning processes, which should also be considered. Considering students' well-being is important in providing a new perspective on determining its effect on learning processes such as student-teacher interaction, individualized attention, students' ability to focus in a

distracting environment, and students' sense of belonging and investment in academic pursuit (Cooper & Fry, 2020; Jackw, 2021; Riley, 2023).

It was observed that the situation at Talisay City National High School regarding congestion-related issues went unchecked due to the vast number of students and the lack of building infrastructure. Classrooms had to hold up to 70 students, and in some cases, two different strands had to share a room in order to achieve the goal of having 70 students in one room to maximize each classroom. This implied that students' experiences could be considered congestion-related, which was influenced by classroom congestion. This led to the research purpose of unveiling the primitive effects in a congested classroom of General Academic Strand and Humanities and Social Sciences students, to determine the extent to which the well-being and learning process of the students were affected by congestion-related concerns and to serve as the foundation for an action plan that would ease their congestion-related experiences.

Research Questions

This research sought to reveal the primitive effects of congested classrooms and their impact on the well-being and learning processes of General Academic Strand & Humanities and Social Sciences students at Talisay City National High School during the Academic Year 2023-2024, to serve as the foundation for an action plan to mitigate congestion-related experiences. Specifically, it answered the following sub-problems.

1. What defines the respondents' demographic profile in terms of:
   1.1 age; and
   1.2 gender?
2. To what extent of the primitive effects affecting the well-being and learning processes as perceived by the respondents in a congested classroom in terms of:
   2.1 classroom compatibility; and
   2.2 health-related concerns?

Literature Review

The classroom environment was emphasized in this research to unveil the primitive effects of a congested environment among the different factors, such as school resources, psychological health-related factors, motivating encouragement, and the visual-hearing impairments that were found to positively and negatively impact students' performances (Kapur, 2018). A well-equipped classroom with physical amenities significantly improved academic performance results, students were also found to be more motivated, interested, and attentive, this concluded that if students felt comfortable within the classroom, they would have better concentration on the lessons taught to them, resulting in obtaining high scores (Suleman & Hussain, 2014; Ramli & Zain, 2018).

In the Philippines, some classrooms, especially in urban areas, are considered to be congested. There are an estimated 165,000 fewer classrooms in the Philippines than there should be, and approximately 189,000 school buildings require significant or minor repairs that have to accommodate 26.3M students enrolled in school year 2023-2024 (Quismorio, 2023). The Public-School Class Size Law of 2016 (House Bill 473) states that in order to accommodate a growing school-age population, the Department of Education has coped with these shortages by allowing extremely large class sizes in urban centers, it is no longer uncommon to see teachers handling classes with 60 to 80 students (Llego, 2018). Thus, the physical environment of the school becomes congested and cannot accommodate the high population, shifting the main focus to developing a basic foundation and ensuring that every child can go to school rather than providing an adequate classroom environment. An inadequate classroom environment can affect the teaching and learning process, as it limits the application and implementation of competence-based curriculum and supportive classroom management practices that aid the effectiveness of teaching and learning processes (Björklund & Bramfors, 2016; Likuru & Mwila, 2022). This is a problem for learners, as the occurrence of distractions is frequent in congested classrooms, which hinders students' ability to focus, and have to endure a lack of individualized attention and limited interaction, affecting effective learning processes.

Classroom compatibility in an academic context refers to the accessibility or appropriateness of a specific classroom setting for the needs of the students and the objectives of the educational program. The physical layout of the classroom and the teacher's teaching style play a crucial role in students' learning experiences and academic performance. All mind and behavior can be explained as a result of environmental conditioning, positive and negative stimuli are needed to control this kind of behavioral change, and the same applies to humans, the academic environment, especially in a congested classroom with inadequate seating arrangements, space constraints, and limited mobility, can either be liked or disliked by students, this can affect their academic performance, as concentration on the lesson may be hindered (Staddon & Cerutti, 2003; Singh et al., 2024). Among the various factors that may affect classroom compatibility, classroom congestion is a main concern for both students and teachers. It can hinder effective teaching and learning processes, in a congested classroom, teachers face evaluation, physical, instructional, and discipline problems due to the large number of students, which has an impact on factors such as limited engagement and teacher attention, movement hindered, and students may reconsider being engaged in class due to the crowded environment (Khan & Iqbal, 2012; Matsepe et al., 2019). Teachers also need help to offer individual attention to each student, leaving some feeling abandoned or disregarded (Osai et al., 2021).

Health-related concerns in a congested classroom include physical, mental, and psychological health, which affect the well-being of

students and, in turn, discourage students' sense of belonging and their overall investment in their academic pursuits, ultimately affecting learning processes. In a congested classroom with a high concentration of students, it is appropriate to consider the thermal comfort of the classroom environment. Singh et al. (2019) mentioned that classroom thermal environment quality plays an important role in a student's life as it influences their performance and well-being, it is also well-known that at each educational stage, curricula demand different activities, learning approaches, and systematic thinking, requiring increasing levels of concentration. Students feel more comfortable doing tasks in a cooler and fresher environment, allowing them to concentrate better and achieve higher scores. In a congested classroom, concentration can be interrupted by distractions such as noise. Liu et al. (2023) found that sound has a significant impact on people's performance, especially mental and physical health. The efficiency of learning can be negatively impacted by sound, which is true to some extent, as it can hinder student-teacher interaction due to other students' distracting behavior during class, such as talking to peers or tapping pencils. Keller et al. (2020) mentioned that even with strong motivation to focus, distractions occur in the classroom all the time, including fluctuations between internal and external attention, as well as on-topic and off-topic attention. These distractions affect students' ability to pay attention and hinder the learning process. A congested classroom also carries the risk of spreading illnesses due to the high concentration of students in a finite space and poor air ventilation, exacerbating humidity. Kumar et al. (2022) highlighted that humidity inside a classroom can increase the creation of bacteria, and with a high concentration of students, the risk of spreading illnesses increases. Symptoms present in a congested classroom include headaches, allergies, respiratory diseases, and general health issues. The risk of getting sick in a congested classroom adds to students' worry, affecting their well-being and academic performance, as getting sick hinders their learning and may lead to absences. The lack of mobility inside a congested classroom also promotes sedentary behavior. Peiris et al. (2021) suggested incorporating movement breaks between class hours, as they were perceived to be beneficial for concentration, engagement, and productivity. After long hours of sitting, students may experience body soreness, stiff necks, headaches, and discomfort. Moving from time to time has been shown to increase levels of concentration, alertness, and enjoyment. Hence, students' health is important, as it not only improves their overall well-being but also their academic performance.

In summary, classroom compatibility and health-related concerns are linked to congestion-related issues that present obstacles within educational settings. Classroom congestion limits students' physical movement and prevents them from accessing essential educational materials. Additionally, congested spaces may raise stress and anxiety levels in students, creating an environment that contributes to several health problems. This also affects student-teacher interaction, limiting individualized attention and hindering effective learning processes. Therefore, classroom compatibility and health-related concerns were chosen as the basis for measuring the extent to which students' well-being and learning processes are affected by a congested classroom.

Methodology

Research Design

Descriptive research with a quantitative approach aims to objectively collect and evaluate numerical data to describe the existing condition or features of the topic under examination (Ishtiaq, 2019). The quantitative research design with a descriptive approach is employed in this study due to the characteristics of research which is to describe the primitive effects of congested classrooms on the well-being and learning processes of student's experiences in numerical data. Thus, this research utilizes a quantitative approach with a descriptive design that aims to unveil the primitive effects of congested classrooms and the extent of its impact on the well-being and learning processes of General Academic Strand (GAS) and Humanities and Social Sciences (HUMSS) students in a congested classroom at Talisay City National High School.

Participants

The respondents of the study were Grade 12 GAS and HUMSS students of Talisay City National High School for the Academic Year 2023-2024 with a total population of 278 students. The GAS strand has 138 students which comprise 35 students in GAS A, B, and C and 33 in GAS D while the HUMSS strand has 140 students which comprise 35 students in HUMSS A, B, C, and D. Every two sections of GAS and HUMSS were joined in one classroom where there could be 68 to 70 students per classroom. In determining the number of sample sizes, the researchers used Stratified random sampling and Slovin's formula with a margin of error of 5%. Therefore, there were 164 respondents where 81 respondents were from the GAS strand and 83 from the HUMSS strand.

Instruments

The researchers employed hybrid questionnaires adapted from various research studies, including Olufemi et al. (2018) "Factors Affecting Students' Academic Performance in Colleges of Education in Southwest, Nigeria, "Ogunrinbokun et al. (2023) "Congestion in Classroom in Academic Achievement of Junior Secondary School Business Studies Students in Lagos State, Nigeria, "Dhanapala (2021) "The Effect of Learning Environment on Academic Performance from Students' Perspective," Fatima et al. (2019) "Overcrowded classroom problems faced by school teachers in District Muzzafarabad," Savelieva et al. (2020) "Psychosocial factors and indoor environmental quality in respiratory symptom reports of pupils: a cross-sectional study in Finnish schools," Likuru and Mwila (2022) "Overcrowded Classrooms: Effect on Teaching and Learning Process in Public Secondary Schools in Ilemela Municipality, Tanzania," Turunen et al. (2014) "Indoor environmental quality in school buildings, and the health and wellbeing of students," Daisey et al. (2003) "Indoor air quality, ventilation and Health symptoms in schools: An analysis of Existing information,"

and Vornanen-Winqvist et al. (2020) "Exposure to indoor air contaminants in school buildings with and without reported indoor air quality problems". The questionnaire measures the extent of the primitive effects of a congested classroom on students' well-being and learning processes in terms of classroom compatibility and health-related concerns using the Likert Scale level Frequency and 1-4 point interpretation. The instrument consists of three sections: demographic profile, classroom compatibility, and health-related concerns. The researchers determined the level of agreement through the following categories: (4) Always, (3) Often, (2) Rarely, and (1) Never.

Procedure

The gathered data were collected through the following steps: the school research coordinator authorized the permission to conduct the study inside Talisay City National High School, informing the participants that their agreement would be obtained voluntarily. Afterward, the researchers gave each randomly selected respondent a face-to-face orientation explaining the objectives of the study and research ethics. The respondents are given enough time to answer the survey questionnaires. The data was then calculated after the survey questionnaires were collected from the respondents. With the assistance of a statistician, all of the collected data were encoded in the Statistical Package for the Social Sciences and put through an appropriate statistical computation such as frequency count and percentage for the demographic profile of the respondents, and weighted mean for the extent of the well-being and learning processes perceived by the respondents in a congested classroom. As for the final steps in the data collection process, the data presentation, analysis, and interpretation were conducted.

Ethical Considerations

The researchers followed all guidelines in conducting the study, especially those dealing with ethics. This study was approved by relevant authorities and subject to an ethical review process before implementation. The goal of the study, its anticipated duration, and its advantages were explained to the participants. The researchers made sure that all research actions corresponded to the strictest safety and human rights protection guidelines, especially when it came to data collection methods like in-person survey questionnaire distribution.

Results and Discussion

The results of the study's research question are presented in this section. Frequency count and percentage were used on the demographic profile of the respondents while a weighted mean was utilized to measure the extent of the well-being and learning process that is affected in a congested classroom. This part of the research presented the data in a chronological sequence starting from Table 1: Demographic profile of the respondents, followed by Table 2: Classroom Compatibility, and lastly Table 3: Health-Related Concerns.

Demographic Profile

This section shows the frequency and percentage of the demographic profile of the respondents in terms of age and gender from the sample size of 164 General Academic Strand (GAS) and Humanities and Social Sciences (HUMSS) students in sections A to D.

Table 1. *Age and Gender of the Respondents*

Age (In Years)	*f*	*Male*	*%*	*f*	*Female*	*%*	*f*	*Total*	*%*
20 and above	1		0.61%	3		1.83%	4		2.44%
19	19		11.58%	12		7.32%	31		18.90%
18	36		21.95%	53		32.32%	89		54.27%
17	22		13.41%	18		10.98%	40		24.39%
Total	78		47.55%	86		52.45%	164		100%
Average		19.49				18.00		18.00	

Table 1 displays the age and gender of the respondents. It is apparent from the results that there are a total of 164 respondents from GAS and HUMSS students, with seventy-eight (78) being male and eighty-six (86) being female. Male respondents represent about forty-seven-point fifty-five percent (47.55%), while females represent about fifty-two-point forty-five percent (52.45%) of the total population. It is observed from the result that around one (1) male and three (3) females, representing two-point forty-four percent (2.44%) of the population, are aged twenty (20) and above; nineteen (19) males and twelve (12) females, representing eighteen-point ninety percent (18.90%) of the total population, are aged nineteen (19); around thirty-six (36) males and fifty-three (53) females are aged eighteen (18), representing fifty-four-point twenty-seven percent (54.27%) of the total population; lastly, around twenty-two (22) males and eighteen (18) females are aged seventeen (17), representing twenty-four-point thirty-nine percent (24.39%) of the total population of one-sixty-four (164).

The average age of males presented above is nineteen-point forty-nine (19.49), the average age of females is eighteen (18.00), and lastly, the general age average of both genders is eighteen (18.00), representing the total respondents of one-sixty-four (164). Considering age and gender in data collection was crucial due to the reason that each person has different perspectives and experiences which could vary. Thus, including these in the demographic profile of the respondents, researchers could identify potential biases in their data and ensure a more accurate representation of the population being studied. According to Thomas et al. (2023), "Previous research indicates that there might be distinct obstacles to women's advancement in the academic field for men and women, such as

disparities in duties that may be valued(, such as differences in responsibilities that may be valued disproportionately in promotion and tenure processes." It was further suggested that males underperform in class due to the concept of masculinity, which varies from females, who are typically feminine with distinct attitudes and behaviors (Legewie & DiPrete, 2012; Selecting the Right Analyses for Your Data, n.d.). This implies that age and gender need to be considered in gathering data as the gap in age and the difference between both genders provide different perspectives in the research.

Respondents' Level of Frequency

This part depicts the extent of the primitive effects of congested classrooms affecting the students' well-being and learning processes in terms of classroom compatibility, and health-related concerns.

Table 2: *Primitive Effects of Congested Classroom in terms of Classroom Compatibility*

Statements	*Mean*	*Interpretation*
I had difficulty participating in all of the physical activities in a congested classroom.	2.81	Often
I had difficulty raising a question in an overcrowded classroom.	2.97	Often
I had difficulty navigating through tables and chairs/ distracting others when navigating.	2.73	Often
Congested classrooms make me lose concentration.	2.90	Often
Congested classrooms lead to distracting noise making.	3.26	Always
Learning becomes difficult in a congested classroom.	2.90	Often
Congested classrooms lead to my poor academic performance.	2.57	Often
The classroom has insufficient space which affects my ability to move, write, and learn.	2.96	Often
The classroom has inconvenient seating arrangements that are not suitable for activity-based learning due to the congested classroom.	2.86	Often
There is no comfortable space to study in a congested classroom.	2.84	Often
I am easily disturbed when studying in a congested classroom.	3.45	Always
I had difficulty in seeing the instructional board/whiteboard due to the congested classroom.	2.81	Often
I had difficulty hearing instructional orders from teachers due to the congested classroom.	3.11	Often
Congested classrooms lead to a break in communication between my student and teacher interaction.	2.93	Often
Getting feedback from teachers is difficult in a congested classroom.	2.87	Often
Average Weighted Mean	2.93	Often

Table 2 depicts the primitive effects of congested classrooms in terms of classroom compatibility which has shown an average weighted mean of 2.93 which is categorized as Often. Ranking from highest to lowest mean, the statements "I am easily disturbed when studying in a congested classroom" and "Congested classrooms lead to distracting noise making" have an interpretation of Always with a mean of 3.45 and 3.26 respectively. Followed by the statements "I had difficulty in hearing instructional orders from teachers due to the congested classroom" with a mean of 3.11, "I had difficulty raising a question in an overcrowded classroom" with a 2.97 mean, "Congested classroom has insufficient space that affects my ability to move, write and learn" with a mean of 2.96, and the statement "Congested classrooms lead to break in communication between my student and teacher interaction" has a mean of 2.93 with the interpretation of Often. It is then followed by the statements "Congested classrooms make me lose concentration" and "Learning becomes difficult in a congested classroom" with both having the same mean of 2.90. Statements "Getting feedback from teachers is difficult in a congested classroom", "The classroom has inconvenient seating arrangements that are not suitable for activity-based learning due to the congested classroom" and "There is no comfortable space to study in a congested classroom" has a mean of 2.87, 2.86 and 2.84 which also has an interpretation of Often. The next statement "I had difficulty participating in all of the physical activities in a congested classroom" and "I had difficulty in seeing the instructional board/white board due to the congested classroom" has both a mean of 2.81, "I had difficulty navigating through tables and chairs/distracting others when navigating", with a mean of 2.73 and lastly "Congested classrooms lead to my poor academic performance" has the lowest mean of 2.57 which the statements shows an interpretation of Often. It is evident from the result that classroom compatibility in terms of students' well-being and learning processes are greatly affected by the congested classroom which may hinder the learning processes that lead to the poor academic performance of the students, implying that congested classrooms can have primitive effects on classroom compatibility such as limited mobility, lack of individualized attention and unsupportive learning environment.(Owoseni et al., 2020) found a relationship between academic performance and classroom environment emphasizing the effects of a congested classroom on the student's well-being and academic performance as a congested environment makes it difficult for students to navigate, focus on instructional boards/orders, and also impedes students' ability to concentrate on educational activities due to navigational difficulties, created distractions, and limited personal space. An inadequate classroom environment due to a lack of innovative supplies, poor classroom physical setting, and lack of individualized attention can negatively affect student's engagement, behavior, and performance and limits the productivity of schools, teachers, learners, and quality of education (Tarek, 2021; Dlamini et al., 2023).

Table 3 displays the primitive effects and their results in terms of Health-related concern with an average weighted mean of 2.81 which is categorized as Often. Ranking from highest to lowest mean, "Congested classrooms lead to my discomfort" and "I am worried about the risk of spreading communicable diseases" both have a mean of 2.96. Followed by the statements "I easily feel tired, bored and sleepy in a congested classroom." with a mean of 2.95, "I feel stress in a congested classroom due to my introverted traits." with a 2.92 mean, "I frequently experience headaches due to the humid environment of a congested classroom." with a mean of 2.89 and

interpretation Often. The statement "I frequently experience negative emotional state" and "I feel worried due to my poor ability to adapt in a congested classroom" both have a mean of 2.87 and the interpretation Often. Followed by "Coughing and stuffy nose is frequently experienced due to poor air ventilation in a congested classroom" has a mean of 2.85, "I frequently experience physical strain such as neck pains due to limited mobility", "Frequently experience nose irritation due to dust in a congested classroom" and "Experiencing fever is frequent due to rising temperature in a congested classroom" has a mean of 2.83, 2.80 and 2.77 respectively. The next statement "The rampant noise makes you disheartened" has a mean of 2.76 and "I experienced airway and eye irritation due to dust from the high concentration of students in a congested classroom." has a mean of 2.72, following the ranking of highest to lowest, the next statement is "Frequent Physical Harm/ Trips.", with a mean of 2.57 and the last statement with an interpretation Often. Lastly, the statement "I had difficulty breathing in a congested classroom." has the lowest mean of 2.48 and an interpretation of Rarely. From the outcome, it is clear that congested classrooms have a primitive effect on health-related concerns, which are physical, mental and psychological challenges. It is perceived by students as often affecting their well-being and learning processes and ultimately their academic performances, valuing the importance of lessening these health-related challenges in a congested classroom to give students a chance in improving their academic performance, rather than making it harder by hindering learning processes due to the risk of attracting illnesses, promoting sedentary behavior and distracting motivation in their academic pursuit. Health of students affected by congestion due to overcrowded classroom can impedes academic performances as it is perceived unsupportive learning environment due unsanitary, since if one student has a contagious ailment, others can quickly get infected hindering' learning process, they also point out the relationship of behavior affecting academic performances (Khumalo and Mji, 2014; AdrianChin et al., 2019). Factors such as physical, mental, and psychological health being affected by congested classroom can have a significant effect on students' academic achievement and performances due to occurrence of sedentary behavior, lack of concentration, anxiety, depression, stress and other emotional disturbances which affects students' self-confidence, motivation and overall investment which is a staple for a student on their academic pursuit (Karimi et al., 2020; Srinivas, & Venkatkrishnan, 2016).

Table 3. *Primitive Effects of Congested Classroom in terms of Health-related Concern*

Statements	*Mean*	*Interpretation*
Congested classrooms lead to my discomfort	2.96	Often
I easily feel tired, bored, and sleepy in a congested classroom.	2.95	Often
I had difficulty breathing in a congested classroom.	2.48	Rarely
Coughing and stuffy nose are frequently experienced due to poor air ventilation in a congested classroom.	2.85	Often
I experienced airway and eye irritation due to dust from the high concentration of students in a congested classroom.	2.72	Often
I frequently experience headaches due to the humid environment of a congested classroom.	2.89	Often
I am worried about the risk of spreading communicable diseases.	2.96	Often
I frequently experience negative emotional states.	2.87	Often
I feel worried due to my poor ability to adapt to a congested classroom.	2.87	Often
I frequently experience physical strain such as neck pains due to limited mobility.	2.83	Often
I feel stressed in a congested classroom due to my introverted traits.	2.92	Often
The rampant noise makes you disheartened	2.76	Often
Frequently experience nose irritation due to dust in a congested classroom	2.80	Often
Experiencing fever is frequent due to rising temperatures in a congested classroom	2.77	Often
Frequent Physical Harm/ Trips and Falls	2.57	Often
Average Weighted Mean	2.81	Often

Conclusion

This research was formulated to unveil the primitive effects of congested classrooms in terms of classroom compatibility, health-related concerns and the extent of its impact on the well-being and learning processes of General Academic Strand and Humanities and Social Sciences students. The findings revealed that the level of frequency of the experiences on students' well-being and learning processes related to classroom compatibility and health-related concerns has a response that is consistent with "Often". This implies that the well-being and learning processes of General Academic Strand and Humanities and Social Sciences students can be perceived as often affected negatively due to a congested classroom. It can be concluded that these primitive effects of congested classrooms can have detrimental effects on students' learning, which can potentially affect their academic performance due to discouragements such as affecting motivation, sense of belonging, and overall academic investment, which is a staple for a student in their academic pursuit. This research will serve as a foundation for creating an action plan to mitigate these primitive effects caused by a congested classroom, which will potentially prevent these primitive effects from becoming detrimental to academic performance.

References

Adrianchin, Y., Josephng, P. S., Shibghatullah, A. S., & Loh, Y. F. (2019). Jomdatamining: Learning Behavior Affecting Their Academic Performance, Really? 2019 IEEE 6th International Conference On Engineering Technologies And Applied Sciences (ICETAS). Https://Doi.Org/10.1109/Icetas48360.2019.9117453

Ahmad, C. N. C., & Amirul, N. J. (2017). The Effect Of The Physical Learning Environment On Students' Health, Enjoyment And

Learning. Jurnal Pendidikan Sains & Matematik Malaysia, 7(1), 47–55. Https://Doi.Org/10.37134/Jsspj.Vol7.No1.4.2017

Ahmad, S., Arshad, M., & Qamar, Z. A. (2018). Effects Of Over-Crowded Classes On Teaching Learning Process At Secondary Level In District Nankana Sahib. Global Social Sciences Review, III(IV), 212–227. Https://Doi.Org/10.31703/Gssr.2018(Iii-Iv).15

Biggs, A., Brough, P., & Drummond, S. (2017). Lazarus And Folkman's Psychological Stress And Coping Theory. American Psychological Association, 349–364. Https://Doi.Org/10.1002/9781118993811.Ch21

Björklund, F., & Bramfors, M. (2016). An Architectural Perspective On Schools In The Philippines : A Research Into The Importance Of A Classroom's Physical Environment And Possible Improvements For A Better Learning Environment. DIVA. Https://Www.Diva-Portal.Org/Smash/Record.Jsf?Pid=Diva2%3A938814&Dswid=9382

Cooper, L., & Fry, K. F. (2020). The Relationship Between Classroom Environment And Student Course Attrition And Perceptions Of Engagement. ERIC - Education Resources Information Center (.Gov). Https://Bit.Ly/3j2d4kw

Daisey, J. M., Apte, M. G., & Angell, W. J. (2003). Indoor Air Quality, Ventilation And Health Symptoms In Schools: An Analysis Of Existing Information. LBL Publications. Https://Bit.Ly/3vnhrn4

Dhanapala, R. M. (2021). The Effect Of Learning Environment On Academic Performance From Students' Perspective. Global Scientific Journals. Https://Bit.Ly/3ves4bv

Dlamini, Jedishkem, E., & Jedishkem, J. (2023). Challenges Arising From Universal Free Basic Education, Eswatini. Asian Journal Of Education And Social Studies, 48(3), 1–14. Https://Doi.Org/10.9734/Ajess/2023/V48i31064

Fatima, Z. U. A., Mushatq, M., & Fatima, Q. U. A. (2019). Overcrowded Classroom Problems Faced By School Teachers In District Muzzafarabad. International Journal Of Academic Research In Progressive Education And Development, 8(4). Https://Doi.Org/10.6007/Ijarped/V8-I4/6530

Harvard Business Publishing Education. (N.D.). Https://Hbsp.Harvard.Edu/Inspiring-Minds/Addressing-Mental-Health-In-The-Classroom

Ishtiaq, M. (2019). Book Review Creswell, J. W. (2014). Research Design: Qualitative, Quantitative And Mixed Methods Approaches (4th Ed.). Thousand Oaks, CA: Sage. English Language Teaching, 12(5), 40. Https://Doi.Org/10.5539/Elt.V12n5p40

Jackw. (2021, November 1). Mihaly Csikszentmihalyi, Pioneering Psychologist And 'Father Of Flow,' 1934–2021. University Of Chicago News. Https://News.Uchicago.Edu/Story/Mihaly-Csikszentmihalyi-Pioneering-Psychologist-And-Father-Flow-1934-2021

Kapur, R. (2018). Factors Influencing The Students' Academic Performance In Secondary Schools In India. Retrieved April 2018 From Https://Bit.Ly/3TADIXG

Karimi, J. W., Kwena, D. J. A., & Anika, D. A. (2020). Emotional Intelligence And Academic Achievement Among Secondary School Students In Kilifi County, Kenya: A Correlational Study. Journal Of Research Innovation And Implication In Education. Https://Bit.Ly/4aqkcvx

Keller, A. S., Davidesco, I., & Tanner, K. D. (2020). Attention Matters: How Orchestrating Attention May Relate To Classroom Learning. CBE Life Sciences Education, 19(3), Fe5. Https://Doi.Org/10.1187/Cbe.20-05-0106

Khan, P., & Iqbal, M. (2012, August 30). "Over Crowded Classroom: A Serious Problem For Teachers". Https://Bit.Ly/3tgjxmi

Khumalo, B., & Mji, A. (2014). Exploring Educators' Perceptions Of The Impact Of Poor Infrastructure On Learning And Teaching In Rural South African Schools. Mediterranean Journal Of Social Sciences. Https://Doi.Org/10.5901/Mjss.2014.V5n20p1521

Kumar, P., Singh, A., & Singh, R. (2022). Comprehensive Health Risk Assessment Of Microbial Indoor Air Quality In Microenvironments. Plos One, 17(2), E0264226. Https://Doi.Org/10.1371/Journal.Pone.0264226

Legewie, J., & Diprete, T. A. (2012). School Context And The Gender Gap In Educational Achievement. American Sociological Review, 77(3), 463–485. Https://Doi.Org/10.1177/0003122412440802

Likuru, L. C., & Mwila, P. M. (2022). Overcrowded Classrooms: Effect On Teaching And Learning Process In Public Secondary Schools In Ilemela Municipality, Tanzania. Asian Journal Of Education And Social Studies, 75–87. Https://Doi.Org/10.9734/Ajess/2022/V30i230744

Liu, C., Zang, Q., Li, J., Xue, P., Dai, H., & Gao, W. (2023). The Effect Of The Acoustic Environment Of Learning Spaces On Students' Learning Efficiency: A Review. Journal Of Building Engineering, 79, 107911. Https://Doi.Org/10.1016/J.Jobe.2023.107911

Lin, Y., Zhou, Y., & Chen, C. (2023). Interventions And Practices Using Comfort Theory Of Kolcaba To Promote Adults' Comfort: An Evidence And Gap Map Protocol Of International Effectiveness Studies. Systematic Reviews, 12(1). Https://Doi.Org/10.1186/S13643-023-02202-8

Llego, M. A. (2018, May 28). The Public-School Class Size Law Of 2016 (House Bill 473). Teacherph. Https://Www.Teacherph.Com/Public-School-Class-Size-House-Bill-473/

Matsepe, D., Maluleke, M., & Cross, M. (2019). Re-Imagining Teacher's Experience With Overcrowded Classrooms In The Public Secondary Schools In South Africa. Sabinet African Journal. Https://Bit.Ly/49rfvju

Ogunrinbokun, B., Salawu, M., & Oluwole-Moses, O. (2023, May). Congestion In Classrooms And Academic Achievement Of Junior Secondary School Business Studies Students In Lagos State, Nigeria. Ajoved.Org.Ng. Https://Bit.Ly/43lhlsy

Olufemi, O. T., Adediran, A. A., & Oyediran, Dr. W. O. (2018). Factors Affecting Students' Academic Performance In Colleges Of Education In Southwest, Nigeria. British Journal Of Education Https://Bit.Ly/4cziqbj

Osai, J. A., Amponsah, K. D., Ampadu, E., & Commey-Mintah, P. (2021, June 30). Teachers' Experiences With Overcrowded Classrooms In A Basic School In Ghana. Https://Dergipark.Org.Tr/En/Pub/Iojpe/Issue/69625/1110232

Owoseni, A., Ibem, E. O., & Opoko, A. P. (2020). Impact Of Physical Learning Environment On Students' Learning Outcomes In Secondary Schools In Lagos State, Nigeria. Universal Journal Of Educational Research, 8(8), 3635–3642. Https://Doi.Org/10.13189/Ujer.2020.080841

Peiris, C. L., O'Donoghue, G., Rippon, L., Meyers, D., Hahne, A. J., De Noronha, M., Lynch, J., & Hanson, L. C. (2021). Classroom Movement Breaks Reduce Sedentary Behavior And Increase Concentration, Alertness And Enjoyment During University Classes: A Mixed-Methods Feasibility Study. International Journal Of Environmental Research And Public Health, 18(11), 5589. Https://Doi.Org/10.3390/Ijerph18115589

Plass, J. L., & Kalyuga, S. (2019). Four Ways Of Considering Emotion In Cognitive Load Theory. Educational Psychology Review, 31(2), 339–359. Https://Doi.Org/10.1007/S10648-019-09473-5

Ramli, A., & Zain, R. M. (2018). The Impact Of Facilities On Student's Academic Achievement. Sci.Int.(Lahore). Https://Bit.Ly/49lxniq

Redondo-Flórez, L., Ramos-Campo, D. J., & Clemente-Suárez, V. J. (2022). Relationship Between Physical Fitness And Academic Performance In University Students. International Journal Of Environmental Research And Public Health (Online), 19(22), 14750. Https://Doi.Org/10.3390/Ijerph192214750

Riley, C. M. (2023). Career And Calling Circles: Spaces Of Belonging For First-Year Underrepresented Students. Christ. High. Educ. (London, UK : Online), 22(3–4), 200–211. Https://Doi.Org/10.1080/15363759.2023.2220679

Savelieva, K., Elovainio, M., Lampi, J., Ung-Lanki, S., & Pekkanen, J. (2020b). Psychosocial Factors And Indoor Environmental Quality In Respiratory Symptom Reports Of Pupils: A Cross-Sectional Study In Finnish Schools. BMJ Open, 10(9), E036873. Https://Doi.Org/10.1136/Bmjopen-2020-036873

Selecting The Right Analyses For Your Data. (N.D.). Google Books. Https://Books.Google.Com.Ph/Books?Hl=En&Lr=&Id=9911awaaqbaj&Oi=Fnd&Pg=PP1&Ots=Yxzii-Lk9k&Sig=J27-Gvfbgr_Gjbnt50m9d9-Pioc&Redir_Esc=Y#V=Onepage&Q&F=False

Siddiqui, A. (2018). Investigating The Dilemma Of Noise Within Over-Crowded Classroom Of A Public Sector School Hyderabad, Pakistan. English For Specific Purposes World, Https://Bit.Ly/4cdqbar

Singh, M. K., Ooka, R., Rijal, H. B., Kumar, S., Kumar, A., & Mahapatra, S. (2019). Progress In Thermal Comfort Studies In Classrooms Over Last 50 Years And Way Forward. Energy And Buildings, 188–189, 149–174. Https://Doi.Org/10.1016/J.Enbuild.2019.01.051

Singh, S. (2024, January 8). What Is Descriptive Research? Definition, Methods, Types And Examples | Researcher.Life. Https://Researcher.Life/Blog/Article/What-Is-Descriptive-Research-Definition-Methods-Types-And-Examples/

Suleman, Q., & Hussain, I. (2014). Effects Of Classroom Physical Environment On The Academic Achievement Scores Of Secondary School Students In Kohat Division, Pakistan. International Journal Of Learning And Development, 4(1), 71. Https://Doi.Org/10.5296/Ijld.V4i1.5174

Srinivas, P., & Venkatkrishnan, S. (2016). Factors Affecting Scholastic Performance In School Children. IOSR Journal Of Dental And Medical Sciences, 15(7), 47-53. Retrieved April 25, 2018 Https://Bit.Ly/3ihzfmx

Staddon, J. E. R., & Cerutti, D. T. (2003). Operant Conditioning. Annual Review Of Psychology, 54(1), 115–144. Https://Doi.Org/10.1146/Annurev.Psych.54.101601.145124

Tarek, E. K., Phd. (2021). The Impact Of The Class Environment On High School Students' Learning In Public Schools In Keserwan, Lebanon. Http://Ir.Ndu.Edu.Lb:8080/Xmlui/Handle/123456789/1445

Thomas, T., Devraj, R., Quiñones-Boex, A. C., Planas, L. G., Unni, E. J., Barner, J. C., Blakely, M. L., Clark, M., Irwin, A. N., Nagel-Edwards, K., Suda, K. J., Zgarrick, D. P., Young, H. N., Nau, D. P., & Warholak, T. (2023). Gender Equity Perceptions Among Social And Administrative Science Faculty: A Qualitative Evaluation. Journal Of The American Pharmacists Association, 63(1), 50-57.E2. Https://Doi.Org/10.1016/J.Japh.2022.05.014

Turunen, M., Toyinbo, O., Putus, T., Nevalainen, A., Shaughnessy, R., & Haverinen-Shaughnessy, U. (2014). Indoor Environmental Quality In School Buildings, And The Health And Wellbeing Of Students. International Journal Of Hygiene And Environmental Health, 217(7), 733–739. Https://Doi.Org/10.1016/J.Ijheh.2014.03.002

Vornanen-Winqvist, C., Järvi, K., Andersson, M. A., Duchaine, C., Létourneau, V., Kedves, O., Kredics, L., Mikkola, R., Kurnitski, J., & Salonen, H. (2020). Exposure To Indoor Air Contaminants In School Buildings With And Without Reported Indoor Air Quality Problems. Environment International, 141, 105781. Https://Doi.Org/10.1016/J.Envint.2020.105781

Affiliations and Corresponding Information

Ranreeve R. Lapes
Talisay City National High School
Department of Education – Philippines

Jayson E. Cababat
Talisay City National High School
Department of Education – Philippines

Ralph P. Pespeñan
Talisay City National High School
Department of Education – Philippines