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ASSESSING THE IMPACTS OF PAUCITY OF FIELD ENGAGEMENTS IN GEOSCIENCE EDUCATION: A CASE STUDY OF PUBLIC UNIVERSITIES IN ANAMBRA STATE, NIGERIA

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Abstract
Field studies have long been recognized as effective in geoscience education, demonstrating successful and proficient learning outcomes. Therefore, the significance of field engagement in geoscientific education cannot be overstated. However, its lack, due to insecurity and lack of funds, has led to several effects on the students and the quality of geoscience education. One of these impacts is the diminishing interest of students in geoscience education. Hence, this study aims to investigate the relationship between the lack of field engagements and students' declining interest in the geoscience education system in public universities in Anambra State, Nigeria.
Additionally, it seeks to identify other negative consequences of the scarcity of field engagements on students and the overall quality of geoscience education in the study area. Geoscience students enrolled in public universities in the study area serve as the primary case studies. Data was collected using a questionnaire and analyzed through ordinal regression analysis to examine the correlation between declining interest in geoscience education and the limited availability of field engagement

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opportunities. The study's hypotheses suggest that the lack of field engagement significantly contributes to students' diminishing interest in geoscience education. The findings reveal insufficient funding, security concerns, and excessive student admissions as major factors hindering adequate field studies for geoscience students. As a recommendation, the study proposes the integration of practical field engagements into the geoscience education curriculum. It also advocates for collaborative partnerships between academia, industries, and non-governmental organizations (NGOs) to secure student funding and internship opportunities. Including dual internship terms in the geoscience department during the second and third years is suggested to sustain students' interest and enthusiasm in the geoscience education system. Implementing these recommendations can positively impact students' interest, enthusiasm, and overall learning outcomes in geoscience education.

Keywords
Geoscience, quality education, field engagement, Anambra State, paucity.

INTRODUCTION

Field engagement includes field trips and fieldwork, an outdoor group visit to a place of special interest (education, research, or exploration) for direct understanding, firsthand observation, and experience at such a noteworthy site (Donaldson, Fore, Filippelli, & Hess, 2020). The utilization of field engagements in teaching and learning realizes successful and proficient geoscience learning (Donaldson et al. 2020). It ensures that teachers and learners meet their obligations by guaranteeing its use to encourage learning valuable concepts and enable students to make abstract thoughts more concrete (Sitali-Mubanga, Lukonga, & Denuga, 2018). Furthermore, Sodipo (2014) opined that students' exposure to field engagements fosters team spirit, which is crucial for a successful field investigation.

However, some limitations have resulted in a declining rate of students' exposure to field engagements due to inadequate funding of university systems and insecurity (Ezeani, 2018).

Consequently, these limitations have led to the paucity or lack of field engagements in geoscience education, especially in public universities in Nigeria, resulting in a high rate of graduate um-employments, declining interest in geoscience education, inability to appreciate geologic structures in textbooks and classroom, and inability to recall theory-based concepts after examinations (Ogbonna & Ezeji, 2020). This study investigates the association between the lack of field engagement and the decline in students' interest in geoscience education within public universities in Anambra State, Nigeria. The research aims to determine whether the lack of field engagement contributes to the declining interest among students in geoscience education. Furthermore, the study sampled students' opinions in the study area. Finally, it conducted statistical analysis to prove or disprove the assumptions and identified other impacts of the lack of field engagements in the study area. This study aligns with experiential and situated learning theories, emphasizing the importance of hands-on experiences and authentic contexts in the learning process.

Experiential learning theory, proposed by David Kolb, posits that learning occurs through a cycle of concrete experience, reflective observation, abstract conceptualization, and active experimentation (Kolb, 1984). Field engagements provide students with concrete experiences in real-world geoscience settings, allowing them to actively engage with the subject matter and make meaningful connections. This experiential learning process helps students develop a deeper understanding of geoscience concepts and fosters the application of knowledge in practical contexts.

Situated learning theory, developed by Jean Lave and Etienne Wenger, emphasizes the importance of learning in authentic social and cultural contexts (Lave & Wenger, 1991). Field engagements provide students with opportunities to engage in situated learning, where they participate in geoscience activities alongside experts and peers, thereby immersing

themselves in the professional practices and discourse of the discipline. By being situated in real-world geoscience environments, students develop a sense of belonging and identity as geoscientists, and their learning becomes more meaningful and applicable to real-world challenges.

REVIEW OF LITERATURE

Recently, the impacts of the paucity of field engagements have been voiced around Nigerian universities; hence, there are many studies on the relevance and impacts of the paucity of field engagements in Nigeria (Edinyang et al., 2015b; Emeke & Ezeokoli, 2018; Ezeani, 2018a; Ezeani, 2018b; Ogunode et al., 2021; Sodipo, 2014). However, few are in the public universities in Anambra state. In Nigeria, there have been many reports that most science graduates fail to meet the expectations of employers in earth science-related industries because they cannot be readily mobilized for fieldwork (Ezeani, 2018; Ogunode et al., 2021). Due to the country's economic challenges, many companies do not have the financial capacity for intensive field training of entry-level graduates. For this reason, most science graduates from public universities in Nigeria are regarded as unemployable (Ezeani, 2018; Noor, 2011). This misfortune is often attributed to the poor funding of public universities, lack of quality lecturers, reduced interest in education, and corruption in tertiary institutions (Ezeani, 2018b; Ogunode et al., 2021). While the problems mentioned above contribute to the degrading quality of sciences graduates from most public universities in Nigeria, the lack or inadequate exposure to field engagements has been assumed to be the primary reason for the un-employability of geoscience graduates in particular (Sodipo, 2014). This is because geology, as a branch of science, uses the field as its laboratory. Most theoretical-based studies in geoscience, such as geologic structures and landforms, which are taught in class in their

abstract form, may not be clearly understood if the students are not exposed to field observations. Therefore, it may be practically impossible to acquire the required industrial skills through theoretical studies alone.

Talking more about the impacts of a lack of field investigations, Edinyang et al. (2015) observed that most graduates, though with excellent grades and good theoretical backgrounds, could not carry out basic site investigations in the field. The graduates' inability to carry out basic site investigations was attributed to inadequate field engagement during their undergraduate studies. This observation made by Edinyang et al. (2015) is a serious issue bedeviling most recent graduates in Nigeria.

While it has been generally assumed that the un-employability of the geoscience graduate could be attributed to the lack of or inadequate exposure to field engagements, there have been only a few works to back up this assumption. For this reason, it becomes imperative to sample the opinions of the people (postgraduates, recent graduates, and undergraduates) that are directly involved in geosciences. This will help to ascertain the factual cause and implications of inadequate field engagement in geoscience education in Nigerian public universities. Furthermore, the derived knowledge from the study will help the targeted audiences and the country at large to realize the implications of the lack of field engagements in the geoscience system of education.

METHODOLOGY

The ordinal qualitative statistical analysis, which involves ranking responses, was employed to analyze the responses obtained from the participants. This approach allowed for examining the relative order and magnitude of the responses on the Likert scale. Additionally, nominal quantitative statistical analysis, which entails naming or classifying responses, was

utilized during the data analysis. This allowed for categorizing and identifying distinct response patterns within the data set. A comprehensive understanding of the participants' perspectives and trends in their responses was achieved by employing ordinal and nominal analyses.

Objectives

To investigate the impacts of paucity of field engagements in geoscience education, this study will carry out the following objectives:

1. Investigate if the lack of field engagement contributes to the declining interests of students in the geoscience education system in the study area.
2. Examine other consequences of the impacts of lack of field engagement on students and in the geoscience system of education in the study area.
3. Evaluate the rate of geoscience students' participation in field engagements.
4. Evaluate the rate at which students appreciate scales of geologic structures without actually seeing them on the field.
5. Investigate geoscience students' ability to recall theory-based topics.
6. Investigate students' perception of the possible causes of lack of field engagement and how to reduce the effects.
7. Discuss possible solutions to the lack of field engagements.

Data analysis and hypothesis

The collected data were subjected to an in-depth analysis using ordinal regression analysis to examine the relationship between the dependent variable – participants' declining interest in geoscience education amidst the scarcity of field

engagement opportunities. In addition, this analysis aimed to determine if a significant association existed between the dependent and independent variables.

The analysis in this study focused on the participants' interest in geoscience education in relation to the lack of field engagements in the study area. The participants' responses were used as the dependent variable and measured using a five-point Likert scale. The numerical values assigned to the responses were as follows: strongly agree (5), agree (4), neutral (3), disagree (2), and strongly disagree (1). This value assignment facilitated the statistical analysis of the collected data, ensuring ease of interpretation and analysis.

The analysis in this study included several independent variables and their corresponding numerical ratings/values. These variables consisted of the participants' academic level (postgraduate, 400 level, 300 level, and 200 level), their ability to appreciate scales of geologic structures (rated as Excellently appreciated (5), Well appreciated (4), Fairly appreciated (3), Poorly appreciated (2), and None appreciated (1)), and the number of field exposures they had experienced (rated as 4 and above (5), 3 (4), 2 (3), 1 (2), and Not even once (1)). These independent variables were selected assuming they could potentially influence the participants' interest in geoscience education in the context of the limited field engagement in the study area.

After eliminating missing values and irrelevant columns, the data were prepared in MS Excel. The transformed data, categorized as ordinal and nominal variables, were imported into IBM SPSS Software (version 28). To examine the significance of the relationship between the participants' interest in geoscience education and the lack of field engagement, an ordinal regression analysis was performed with the following test hypotheses;

a) Null Hypothesis (H_0): Lack of field engagement does not significantly contribute to the declining rate of students' interest in geoscience education in the study area.
b) Alternative Hypothesis (H_A): Lack of field engagement significantly contributes to the declining rate of students' interest in geoscience education in public universities in the study area.

A significance level of 0.05 was used for the statistical analysis, and the relationship between the dependent and independent variables was assessed using the goodness of fit (chi-square) test. IBM SPSS version 28, a widely recognized software package for statistical analysis, was utilized for these analyses.

Furthermore, descriptive statistics were employed to provide summary statistics of the data. Measures such as the total, mean, standard deviation, minimum, and maximum were computed to summarize the data distribution. Excel spreadsheets presented the results in clear and visually appealing tables and charts.

Notably, the current study shares similarities with the research conducted by Regina et al. (2021), which investigated the factors influencing students' academic performance at Njala University, Sierra Leone. Their study also employed a significance level of 0.05 and identified study time as one of the factors affecting students' performance.

Research questions

This study aimed to answer the following questions:

1. How well are geoscience students exposed to field engagements?
2. Are students still interested in the geoscience education system amidst insufficient field exposure?
3. Is lack of adequate funding and insecurity among the significant causes of lack of field engagements?

4. Is there a need for curriculum adjustment to accommodate multiple internships before graduation to encourage industry and field experience?
5. Can virtual field engagement substitute physical field engagements?
6. What can be the available solutions to reduce the impacts?

Methods

The target population for this research comprised geoscience students, including postgraduates, and those in the 400 level, 300 level, and 200 level of their programs, enrolled in the two public universities within the study area. Through a random sampling technique, a total of 251 responses were obtained from the participants, ensuring a diverse representation across academic levels. A structured, closed-ended questionnaire (Table 7) was administered to collect responses from the participants, which were measured using Likert scales to assess their level of agreement. First-year students were excluded from participating in this investigation because it was assumed they had inadequate or insignificant knowledge about the field of study; hence, it could introduce bias to the derived information. The research questions in the questionnaire were divided into three sections to get the participants' responses on the impacts, causes, and how to curb the effects of the paucity of field engagements in the study area. The responses collected were categorized on a five-point Likert-scale formula: Strongly Agree (SA), Agree (A), Strongly Disagree (SD), and Disagree (D). However, some of the questions required a response of either Yes, No, or Maybe. The questionnaires, in the form of Google Forms, were distributed by WhatsApp group chat links sourced from the departmental presidents and course representatives of the concerned universities.

Tools

This study was targeted at the universities within the study area of the authors, and samples were distributed in other to get a wide range of people that are directly involved in geosciences, such as undergraduate students (400L, 300L, and 200L), postgraduates of the two public universities in Anambra state, Nigeria.

Questionnaire: The questionnaire comprised 11 questions designed to get the students' opinions concerning the problem in a Google form format.

Microsoft Excel: MS Excel Software was used to analyze the data generated from the students' responses.

SPSS Software: The IBM SPSS version 28 was employed to conduct advanced statistical analyses and generate meaningful insights from the collected data.

Study area

The study area is located in Anambra state, in southeastern Nigeria. This area has a population of about 5,527,809 (National Bureau of Statistics, 2016), distributed in numerous towns and villages.

There are various primary and secondary institutions estimated to be 1,292 (World Data Atlas, 2021). In addition, there are about 29 tertiary institutions in the state, only two of which are public universities. One of these public universities is owned by the Federal government, while the State government owns the other.

The relatively high volume of educational institutions resulted in a high literacy rate within the state, estimated by the National Literacy Survey 2010 body to be 75.1%. In addition, females contributed 68.8% to the literacy rate, while males contributed 78.9% (National Literacy Survey, 2010).

RESULTS AND DISCUSSION

This section provides comprehensive interpretations and discussions of the study's findings. The results are presented and discussed under two main categories: inferential observations and descriptive observations. The inferential observations focus on the outcomes of the ordinal regression analysis, while the descriptive observations utilize summary statistics to explore the various effects of the lack of field exposure on the participants, as indicated by their responses. To ensure a comprehensive interpretation of the observed responses, the descriptive observations are further divided into the following subsections: participants' details, impacts of the paucity of field engagements on participants in the study area, potential causes of the scarcity of field engagements in the study area, and possible strategies to address this declining trend. Organizing the descriptive observations into these subsections enabled a holistic understanding of the participants' experiences and the wider implications of the lack of field engagement.

Inferential observations

This subsection presents the inferential observation, which entails interpreting and discussing the results obtained through the ordinal regression analysis. The primary objective of this analysis was to ascertain if there exists a significant relationship between the declining interest of participants in geoscience education and the limited availability of field engagement opportunities. By examining the relationship between the dependent and independent variables, valuable insights were gained regarding the influence of inadequate field engagements on the participants' interests in geoscience education. The subsequent sections provide a thorough exploration of the findings and their profound implications, providing statistical evidence and interpretations to support the research hypotheses and shed light on the relationship between participants'

declining interest in geoscience education and the lack of field engagements.

Ordinal regression analysis results and discussions

Table 1 presents the case processing summary of the ordinal regression analysis, providing a comprehensive overview of the individual contributions of the dependent and independent variables.

The statistical significance of the model was assessed using the test result presented in Table 2. At a significance level of 5%, the analysis revealed a lower significant chi-square statistic ($p = .000$), indicating that the final model significantly fits the baseline or intercept-only model. The inclusion of independent variables such as participants' level, frequency of field engagement, and appreciation of geologic scales has proven to be instrumental in enhancing the baseline model.

Table 3 displays the results of the Chi-square test of goodness of fit, which examined the relationship between the categorical independent variables and the categorical ordinal dependent variable. The null hypothesis of this test assumes no relationship between the two categorical variables, indicating that knowledge of one variable does not aid in predicting the value of the other variable. Conversely, the alternative hypothesis suggests a dependence between the variables, meaning that knowledge of one variable contributes to predicting the value of the other variable.

Based on the output presented in Table 3, the p-value for the Pearson Chi-square test is 0.977 ($p>0.05$). This indicates that the null hypothesis is rejected in favor of the alternative hypothesis for the two categorical variables. Thus, significant relationships exist between the dependent variable and each of the categorical independent variables considered in the ordinal regression analysis.

The pseudo-R-square, as shown in Table 4, provides insight into the amount of variance explained by the independent variable. Nagelkerke's pseudo-R2 statistics were employed to

estimate the variance explained by the independent variables in the ordinal logistic regression model. The pseudo-R-square values (Nagelkerke = 0.134 = 13%) presented in Table 4 indicate that the ordinal logistic regression model, along with its independent variables, accounts for a relatively small proportion of the variation observed between the independent and dependent variables. This suggests that including additional independent variables is necessary to enhance the comprehensiveness of the analysis. Therefore, future studies should consider incorporating a more comprehensive set of independent variables to further investigate the case study.

Table 5 presents the parameter estimates and their significance, providing insights into the impact of each independent variable on the dependent variable. The p-value, when below 0.05 ($p < 0.05$), leads to the rejection of the null hypothesis in favor of the alternative hypothesis. The null hypothesis assumes no contribution of each independent variable to the dependent variable, while the alternative hypothesis contradicts this assumption.

Table 5 shows that the *levels of the participants* exhibit a significant value of 0.03, falling below the 0.05 threshold. Consequently, we accept the null hypothesis, leading us to conclude that the levels of the participants (Postgraduates, 400 level, 300 level, and 200 level) do not significantly contribute to the declining interest in geoscience education among participants (Table 5).

On the contrary, the null hypothesis is rejected when evaluating the second independent variable, *Appreciated_scales,* in relation to the dependent variable. *Appreciated_scales* represent the extent to which participants appreciate scales of geologic structures without real-life experiences. The ordinal regression model estimates that participants who have a poor appreciation for scales of geologic structures in the classroom, indicated by *Appreciated_scales=2,* have the highest positive estimate, suggesting a greater contribution to the declining

rate of interest in geoscience education compared to other response categories (Table 5).

With a significant value of 0.181, which exceeds the threshold of 0.05, the null hypothesis is rejected in favor of the alternative hypothesis. Thus, the conclusion is that the participants' inability to appreciate scales of geologic structures in the classroom and through textbooks, without actual field experience, contributes to the declining interest rate in geoscience education among the participants.

Furthermore, Table 5 illustrates that according to the regression model estimates, the category of participants who have not engaged in fieldwork even once (Times_of_field_engagement=1) demonstrates the lowest contribution to the decline in participants' interest in geoscience education. This suggests that the *Not even once* category has the least impact on participants' declining interest compared to other response categories. It is important to note that the observed percentage of responses for this category is relatively low (3.8%), as shown in Table 1 and could be the results of the observed outcome. However, it is significant to highlight that the p-values for all categories exceed the 0.05 threshold. These findings provide statistical evidence to reject the null hypothesis, accept the alternative hypothesis, and conclude that a lower number of field engagements significantly contributes to the decline in participants' interest in geoscience education. In other words, as the amount of field engagement decreases, there is a corresponding increase in the drop in students' interest in geoscience education.

Table 6 is the result of the test of parallel lines, which evaluates whether this assumption holds or not. It does so by examining the significance of the p-value associated with the test. If the p-value is greater than the chosen level of significance, alpha (α=0.05), it suggests that the assumption of parallel lines is valid and the relationship between the independent variables and the outcome is consistent across the categories. Hence, we

fail to reject the null hypothesis. On the other hand, if the p-value is less than alpha, it indicates a violation of the parallel lines' assumption, implying that the effect of the independent variables varies across the categories of the dependent variable giving support to the alternative hypothesis.

Based on the findings from the test of parallel lines in the ordinal regression analysis, the obtained p-value of 0.002 indicates statistical significance at a predetermined significance level of 0.05 (Table 6). Consequently, we reject the null hypothesis and provide evidence to support the notion that the paucity of field engagement significantly contributes to the declining rate of students' interest in geoscience education in public universities in Anambra State, Nigeria.

These results suggest that students who have limited exposure to field engagements in geoscience education are more prone to experiencing a decrease in their interest in the subject. The practical experience gained through field engagement plays a pivotal role in sustaining students' enthusiasm and interest in geoscience education.

The outcomes underscore the importance of integrating field engagement opportunities into the geoscience education curriculum of public universities in Anambra State, Nigeria. By providing students with hands-on experiences in the field, educational institutions can potentially enhance students' interest, engagement, and overall learning outcomes in geoscience education.

It is crucial to acknowledge that the statistically significant result establishes a relationship between the lack of field engagement and the decline in interest in geoscience education. Nonetheless, further research and investigation are recommended to explore additional factors that may influence students' interest and to develop comprehensive strategies for effectively addressing this issue.

Descriptive observations

In this subsection delves into the descriptive observations derived from the participants' responses, which shed light on the multifaceted impacts of the paucity of field engagements on geoscience students. Through the use of summary statistics, charts, and tables, we explore the broader effects and implications of the lack of field exposure on their educational experiences and overall interest in geoscience education.

Participants' details

The data reveals that out of 251 total numbers of participants, 55% are from Nnamdi Azikiwe University (NAU), whereas 45% are from Chukwuemeka Odumegwu Ojukwu University (COOU) (Fig. 1). Postgraduate and 400-level students comprise of 18% each of the total respondents, whereas 300 level and 200 level students comprise of 39% and 29% (Fig. 2), respectively.

The respondents' ages range between 16–30, with a mean range of about 21 years (Table 8a and 8b). This implies that all the participants are adults since none was below the age of 16 years, which is regarded as the minimum age of adulthood (Sawyer et al., 2018).

Impacts of the paucity of field engagements on students

From the results of the analysis, Figure 3 shows that 54%, 62%, 59%, and 45 % of the postgraduate, 400-level, 300-level, and 200-level students, respectively, which is more than half of the sample population, strongly agreed that the paucity of field engagement is among the major reasons for the declining rate of students' interest in geoscience. Figure 3 also presents that out of the total responses, none of the postgraduate and 400-level students and 5% and 10% of the 300-level and 200-level students, respectively, strongly disagree that geoscience students are losing interest in geoscience education due to insufficient fieldwork. The disparity of results here might result from some hierarchical experiences, as the postgraduates

must have had more experiences in geoscience education relative to the 200 and 300 levels with probably little appreciation of the system. For this reason, despite the relatively small turn-up of postgraduates, their answers are considered more relevant than that of the other classes of the participants. This result agrees with the observation of Boyle et al. (2007), who observed that the insufficient provision of firsthand experiences through field engagements had been one of the major causes of the fast-declining rate of students' interest in geoscience. The effects have also contributed to the declining rate of geoscience graduates' employability (Bassey & Atan, 2012; Noor, 2011), as they fail to possess the requisite employers' expectations.

In addition to the high un-employability rate of geoscience graduates, which is a socio-economic consequence of the lack of field engagements (Eneji et al., 2013), lack of field engagements through insufficient hands-on experiences has also triggered personality deprivation among geoscience students in the study area. Figure 4 reveals that 70% of postgraduate, 75% of 400-level, 75% of 300-level, and 47% of 200-level students, which constitutes more than half of the sample population, feel intimidated or discouraged among their colleagues who have more field experience than them. This result, compared to the 27% of postgraduates, 10% of 400 level, 8% of 300 level, and 15% of 200 level students that responded *No,* can agree with the observations of Boyle et al. (2007), who lamented that self-humiliation and intimidation could result into generally loss of interests in their course of study. However, this result is contrary to the observations of (Behrendt & Franklin, 2014), who examined the importance of science field trips as educational tools to connect students to classroom concepts.

The study also showed that even the postgraduate and the 400-level students, who are thought to have familiarized themselves with the system, feel intimidated by their colleagues.

This could possibly be a result of their inability to contend in terms of field experience with such colleagues who do more field work, hence, triggering its associated self-humiliation. This outcome is attributed to students' inability to appreciate scales of geologic structures in classrooms, and textbooks, without real-life experiences. Figure 5 reveals that 20% of postgraduate and 400-level students altogether do not appreciate scales of geologic structures without seeing them in real life. In contrast, a higher percentage of the postgraduates, 400-level, 300-level, and 200-level, respectively, fairly appreciate scales of geologic structures without seeing them. From the result also, insufficient field experiences have deprived students of the sense of visualization, promoting fictional, non-concrete knowledge of geologic structures. And this has resulted in students' inability to appreciate the scale of geologic structures – such as landforms, faults, etc., as described in textbooks and slides. Of course, this result justifies geoscience as physical science and that field engagement, which is one of its strongholds, cannot be efficiently substituted for in geoscience education (Cliffe, 2017; Duncan, 2012).

Again, from the analysis of the responses, the low self-esteem among recent graduates could result from insufficient hands-on experiences from field activities. Figure 6 shows that 25% of the postgraduates and 8% of 400-level students have not been to fieldwork more than three times, whereas 2% have not been to fieldwork even once. This effect might be one of the contributing factors to the declining rate of geoscience graduates' employability (Longe, 2018). The relatively higher percentages of *not even once* responses, from the undergraduate students, especially in the 300 and 200 levels (Fig. 6), are discouraging about the employability rate of geoscience graduates in the nearest future as these students are going to be the future graduates.

The relatively higher percentage of *4 times and above* responses (22%) from postgraduate students compared to other

classes of participants in Figure 6 is perhaps possible as it is expected that an average postgraduate should be equipped with field experiences. But on a contrary note, the relatively low percentage of *4 times and above* from 400 and 300 levels is imbalanced. This is one of the reasons why students poorly appreciate the scale of geologic structures and, thus, feel intimidated amidst their colleagues who do more fieldwork.

In addition to the difficulty of students appreciating the scale of geologic structures in the classroom, Figure 7 presents that more than half of the respondents agree that lack of field engagement has also contributed to students' inability to recall theory-based geoscience concepts and topics after the exam. Figure 7 reveals that 60% of postgraduate and 400-level students each replied *Yes* – that they find it difficult to recollect most theoretical concepts and topics even after writing the exams. In comparison, 15% and 10% of postgraduates and 400-level students, respectively, replied *No* to the statement. In as much as the number of responses from postgraduates and 400-level students is relatively smaller than the other classes of participants, their answers are considered to have more weight as it is believed that they must have had a better understanding of the system. In this effect, the percentages of that postgraduates and 400 level students that replied *Yes* in Figure 7 pinpoint that teaching the geoscience concepts without associated field experiences is making teaching and learning aimless since most of them are hardly recalled. This effect has contributed enormously to lowering the standards of geoscience education.

The high percentage of *Yes* responses from postgraduates indicates why students pass through the system without the system going through them (Samuel et al., 2012). Samuel et al. (2012) were worried about the recent reports of students not passing through the system of education, which hiked the unemployability rate among recent graduates. In other words, the highest percentage of *Yes* responses (77%) from the 300-

level class of participants shows that the system may continue to produce half-baked geoscience graduates who neither meet employers' expectations nor have the requisite competencies to compete in the labor market. And such results steer low graduates' employability rates, as Noor (2011) submitted.

Figure 8 reveals future perceptions of students on the current trend of geoscience in their schools. From the figure, 5%, 15%, 20%, and 20% of postgraduate, 400 level, 300 level, and 200 level respectively responded *Yes*; that with the current trend of geoscience education, they will practice geoscience as their future career. Figure 8 also reveals that 60%, 42%, 55%, and 38% of postgraduate, 400 level, 300 level, and 200 level students responded *No*. A similar percentage of 35%, 40%, 24%, and 42% of postgraduate, 400 level, 300 level, and 200 level students responded *Maybe* to the research question. The trend of *Maybe* and *No* responses from the analysis of the result shows that most students in the study area are not sure about practicing geoscience as their future career. This could probably result from being tagged unemployable in the labor market due to inadequate firsthand experience in the field.

The decline of students' interest in geoscience, as observed from the trend of the responses, could also as a result of students finding teaching and learning difficult without firsthand experience from field engagements. Again, this loss of interest could arise from students' inability to appreciate scales of geologic structure in textbooks and classrooms. These trends of responses agree with (Samuel et al., 2012), who lamented the increasing rate of *half-baked* geoscience graduates who passed through the system without the system passing through them.

Possible causes of the paucity of field engagements in the study area

It is doubtful that the causes of the paucity of field engagements in the geoscience system of education in the study area are deliberate, as no one would attempt to bridge such an experimental platform of geoscience education. Recently, the

major reasons behind the paucity of field engagement in the study area are lack of funding in institutions and insecurity (Ezeani, 2018; Ogunode et al., 2021). It is factual that the field is the geoscience's laboratory and it is requisite for geoscience cognitive learning (Petcovic et at., 2014). At times, places of special intrigue are usually far off the comfort zones and thus require many preparations in terms of mobility funding, renting of equipment, and accommodation. In such cases, many necessary arrangements must be set before going to the field. In the situation of insufficient funding, it becomes one of the major causes of the lack of field engagements, especially in public universities (Ogunode et al., 2021). Figure 9 shows that 68%, 50%, 60%, and 48% of postgraduate, 400-level, 300-level, and 200-level students, respectively, strongly agreed that lack of funding and insecurity are the major causes of the paucity of field engagement in their universities. The trend of the responses here shows that more than half of the respondents have experienced the associated effects of lack of field engagement due to the inadequate security conditions in their various areas and inadequate funding needed for satisfactory field engagements.

The higher percentage of *strongly agree* and *agree* responses relative to other classes of responses from participants in Figure 9 suggests that poor funding and insecurity have contributed enormously to the deteriorating quality of geoscience education in the study area. This result is in line with the finding of Ogunode et al. (2021), who disclosed that the lack of adequate funding and sponsorships from the government and other NGOs for public universities is responsible for the deteriorating quality of the geoscience education system in public Universities in Nigeria.

Possible ways to curb the impacts of lack of field engagements

Seeing insufficient funds and insecurity as the major causes of the retrograde culture in the study area, this subsection

discusses the possible strategies to reduce its effects on the geoscience system of education. Knowing a problem is the first step to solving it. To reduce the impacts of paucity of field engagements in the geoscience education, efforts must be made to generate funds for sufficient field engagements.

In the lights of funds generation, geoscience departments should collaborate with international geoscience communities to attract grants needed for field studies. Figure 10 reveals participants' responses to this fund-raising idea. It reveals that 72%, 74%, 78%, and 68% of postgraduate, 400-level, 300-level, and 200-level, respectively, strongly agree that geoscience departments should collaborate with international geoscience communities for fieldwork grants and sponsorships. Also, 26%, 18%, 14%, and 18% of postgraduate, 400-level, 300-level, and 200-level, respectively, agree that geoscience departments should also source funds and grants from international geoscience communities. This collaboration can complement funds allocated for field activities by the departments, thereby improving the geoscience education of these universities. In addition, field trip grants can assist the departments' internal revenue for educative and noteworthy field experiences, thereby improving the system of geoscience education. Also, Ogunode et al. (2021) suggested that contributions from NGOs, alumni, and private sectors are among the potential sources of funds, hence, a potential solution to insufficient field engagements.

Again, Figure 11 presents participants' responses on reducing the effects of this retrograde culture by checking the number of students admitted into the geoscience department. Again, 34%, 54%, 45%, and 42% of postgraduate, 400-level, 300-level, and 200-level, respectively, strongly agree that the number of students admitted into the geoscience departments in the study area should be limited to a number the departments can provide for, amidst insufficient resources. These responses here, compared with a relatively lower percentage of

responses from disagree and strongly disagree respectively, agree with observations of Akinola (1990), who opined that the higher institution education systems direly need funds to cater for both their capital and recurrent needs, and hence, the number of students admitted into the departments should be checked such that departments can cater for its students. However, the relatively low percentage of *Neutral* responses to the statement here pinpoints that reducing the students' admission could be detrimental to the revenue generation and smooth running of the department. Still, sourcing for more research grants and other field activities will drastically increase the number of field activities in each academic session. To this effect, the ideal resolutions are to seek field study sponsorships, field trip grants, and collaborations from the government, alumni, NGOs, and international geoscience communities to ameliorate field engagements.

Furthermore, in extreme conditions of lack of funds for field engagements, one of the remedies to reduce the effects of the lack of firsthand field engagements could be to adjust the curriculum to accommodate multiple internship programs in the third and second years to enhance more field/industry experiences. Figure 12 shows the participants' responses to the statement. Here, the relatively high percentage of *strongly agree* responses from 45%, 54%, 45%, and 42% of postgraduate, 400-level, 300-level, and 200-level students, coupled with a similar trend from the *agree* response, is pinpointing that if the industry-academia relationship is strengthened through the involvement of internships, workshops, and lecture series, students will be nurtured with industry-ready skills sets that will enable them to cope in the labor market. This will be of great help in building the students' practical skill sets as well as increase the chances of automatic employment for fresh graduates, as companies may retain some excellent interns.

Also, in situations where funds and insecurity cannot be handled, virtual field trips (VFTs), online conferences, and teaching of geoscience software can minimize the effects of the paucity of field engagements and equip fresh graduates with industry-ready skill sets. Figure 13 presents a similar trend of *Yes* and *Maybe* responses for all respondent classes. Figure 13 presents that 45%, 50%, 48%, and 52% of postgraduate, 400-level, 300-level, and 200-level students agree that virtual field engagements could be helpful in teaching and learning geoscience. However, similar responses of 45%, 54%, 45%, and 42% from *Maybe* and the same class of respondent, respectively, is indecisive. However, geoscience is a physical science. The *Yes* responses here could be because virtual field excursions and online workshops are cheaper and safer than actual field engagements. Still, the similar responses from the *Maybe* option could suggest that there is no exact substitute for field experience. Although cheaper, virtual field engagement and workshops may still lack the solutions to insufficient field engagements. This is because the online presence may still be deficient in the true 3-dimensional nature of geologic structures (Weili & Thomas, 2002), hence, less effective in teaching practical skills than actual fieldwork (Cliffe, 2017).

CONCLUSIONS AND RECOMMENDATIONS

This study examined the impacts of the paucity of field engagements in geoscience education within the context of public universities in Anambra State, Nigeria. The findings have shed light on the significant role that field engagements play in shaping students' interest, understanding, and practical skills in geoscience education. In addition, the research highlighted the challenges faced by students due to limited exposure to field experiences, including declining interest, difficulty in appreciating geologic structures, and struggles in recalling theory-based concepts.

Conclusions

The use of field engagements in geoscience has realized successful results that have retained the quality of geoscience education. Because the field is the geoscience lab., its significance in teaching and learning geoscience cannot be overemphasized. But recently, due to inadequate funding of the tertiary education system and insecurity, the quality of geoscience education has reduced drastically. This study, in its form, revealed the impacts of the paucity of field engagements on the quality of geoscience education and possible recommendations on how to curb the retrograde culture in public universities in Anambra state, Nigeria.

Achieving its specified objectives, the study found that a vast percentage of postgraduate and 400-level students have not been to the field more than three times. Consequently, they have not appreciated the scales of geologic structures in textbooks and classrooms. In other words, geoscience students find it more difficult to recollect theoretical lectures than field works. But, then, what else could be the aim of geoscience education?

The impacts of field engagements pose a serious issue in the study area as this study reveals the feeling of self-deprivation and low self-esteem among students who engage in fewer field experiences than their colleagues who have more field experiences, probably, due to their inability to contend in terms of field experience. This has generally triggered an overall decline in students' interest in geoscience education and the inclusive feeling of being un-employable.

The study also showed that lack of funds and insecurity have been the major drivers of the paucity of field engagements in the study area. Just like Ezeani (2018) opined, the implications of the lack of field engagements have been worsened by inadequate funding and insecurity. However, this study made many possible suggestions for mitigating these effects. The

results of this study, the majority of the responses, suggest that geoscience departments in the study area should collaborate with international geoscience bodies to attract field study grants. Furthermore, to effectively manage the limited funding, geoscience departments should admit the number of students they can cater to. Although doing this could be detrimental to the smooth running of the departments, sourcing for more research grants will be a better remedial substitute. Also, the study suggests that amidst limited funds for field engagements, the curriculum should be adjusted to accommodate multiple internships, which can increase geoscience students' employability by preparing them for industry sort-after skills sets and experiences. Furthermore, the study suggests using virtual field trips as a cheaper method for students' exposure to, although the effectiveness of this ideal has been controversial among the participants and even past works of literature (Weili & Thomas, 2002).

Recommendations

This study recommends various ways to mitigate the impacts of the paucity of field engagements in geoscience education and enhance the quality of geoscience education in the study and Nigerian public universities. The recommendations include the following:

1. The Geoscience curriculum should include multiple internship opportunities for undergraduate students in Nigeria to acquire enough industry sort-after skill sets. Efforts should also be made to ensure that these internship programs offer maximum exposure to the interns to industry sort-after skillsets and software.
2. There should be an increment in the fund allocations designated for field studies by the school management to ameliorate field studies. Where the allocations are

limited, geoscience departments should also source funding and sponsorship from alumni.

3. The geoscience education system could be adjusted so that research and publication will be a requisite for promotion to a higher level under the close supervision of a lecturer. This will improve students' research experience, critical thinking, and analytical skills, which will make them industry-ready after graduation.
4. Geoscience departments should collaborate and partner with international geoscience bodies to attract grants and sponsorships for field studies.

Where funding is not available, the curriculum could be adjusted to enhance academia and the industries by introducing internship programs at the 200-level and 300-level to enhance more field experiences.

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APPENDICES

Table 1

Case processing summary of the dependent and independent variables

		N	Marginal Percentage
Impact_interest	Disagree	12	5.1%
	Neutral	16	6.8%
	Agree	76	32.1%
	Strongly agree	133	56.1%
Appreciated_geologic_scales	Poorly appreciated	102	43.0%
	Fairly appreciated	69	29.1%
	Well appreciated	35	14.8%
	Excellently appreciated	31	13.1%
Times_of_field_engagement	Not even once	9	3.8%
	1	84	35.4%
	2	63	26.6%
	3	38	16.0%
	4 and above	43	18.1%
Valid		237	100.0%
Missing		22	
Total		259	

Table 2

The model fitting information

Model	-2 Log Likelihood	Chi-Square	df	Sig.
Intercept Only	273.020			
Final	243.525	29.495	8	.000

Table 3

The Chi-square goodness of fit information

	Chi-Square	df	Sig.
Pearson	139.809	175	.977
Deviance	156.304	175	.842

Table 4

The Chi-square goodness of fit information

Cox and Snell	.117
Nagelkerke	.134
McFadden	.061

Table 5

Parameter estimates

		Estimate	Std. Error	Wald	df	Sig.	95% Confidence Interval	
							Lower Bound	Upper Bound
Threshold	[Impact_interest = 2]	-3.648	.687	28.226	1	.000	-4.994	-2.302
	[Impact_interest = 3]	-2.661	.648	16.854	1	.000	-3.931	-1.390
	[Impact_interest = 4]	-.716	.621	1.326	1	.249	-1.934	.502
Location	Level	-.432	.143	9.119	1	.003	-.713	-.152
	[Appreciated_scales=2]	.563	.421	1.789	1	.181	-.262	1.387
	[Appreciated_scales=3]	-.249	.430	.334	1	.563	-1.092	.595
	[Appreciated_scales=4]	-.704	.487	2.090	1	.148	-1.658	.250
	[Appreciated_scales=5]	0[a]	.	.	0	.	.	.
	[Times_of_field_engagement=1]	-.316	.697	.206	1	.650	-1.683	1.050
	[Times_of_field_engagement=2]	.423	.396	1.144	1	.285	-.352	1.199
	[Times_of_field_engagement=3]	.418	.404	1.072	1	.301	-.373	1.209
	[Times_of_field_engagement=4]	.846	.448	3.565	1	.059	-.032	1.724
	[Times_of_field_engagement=5]	0[a]	.	.	0	.	.	.

Table 6
Test of parallel lines

Model	-2 Log Likelihood	Chi-Square	df	Sig.
Null Hypothesis	254.957			
General	234.479[b]	20.478[c]	6	.002

Table 7
Sample of questionnaire and survey questions

Survey Questions	Expected responses				
Section A					
1. Insufficient field engagements have led to an increasing decline rate of students' interest in Geoscience Education.	SA	A	D	SD	NT
2. Do you feel intimidated among colleagues who are more involved in field studies than you?	Y	N		M	
3. How much do you appreciate scales of geologic structures such as faults, landforms, without actually seeing them on field?	EA	WA	FA	PA	NA
4. How many times have you been to the field for hands-on experiences?	Once	Twice	Thrice	4 times or above	
5. Most times you do not recall abstract-based topics after writing the exams.	Y	N		M	
6. With the current trend of the geoscience education in your school, will you like to practice geoscience as your future career?	Y	N		M	
Section B					
7. Lack of field funds for field engagements and insecurity are some of the causes of insufficiency of field engagements.	SA	A	D	SD	NT
Section C					

8. To reduce the effect of the retrograde culture, the geoscience departments should collaborate with international geoscience bodies to attract grants for field activities.	SA	A	D	SD	NT
9. To reduce the effects of this retrograde culture, the number of admitted students into geoscience departments should be limited to a number the department can carter for.	SA	A	D	SD	NT
10. Where fieldwork funding and sponsorships are not available, the curriculum should be adjusted to accommodate dual internship programs at 300 and 200 levels to enhance field experiences.	SA	A	D	SD	NT
11. Virtual field trips and teaching of geoscientific software such as Petrel, surfer, programming languages etc., can minimize the effects of paucity of field engagements?	Y	N		M	

SA = strongly agree, A = Agree, D = Disagree, SD = strongly disagree, NT = Neutral
Y = Yes, N = No, M = Maybe
EA = Excellently Appreciated, WA = Well Appreciated, FA = Fairly Appreciated, NA = Not Appreciated

Table 8a
Age distribution of the respondents

Age	Class of participants				
	PG	400L	300L	200L	Total
Below16	0	0	0	0	0
16-20	0	14	39	51	104
21-25	33	27	48	21	129
26-30	9	5	2	0	16

Mean age = approx. 21 yrs.

Table 8b

Summary statistics of the age distribution of participants

Summary statistics of age	
Total	249
Mean	20.58
Max	29
Min	16

Mean age = approx. 21 yrs.

Figure 1

Percentage distribution of the respondents in the study area

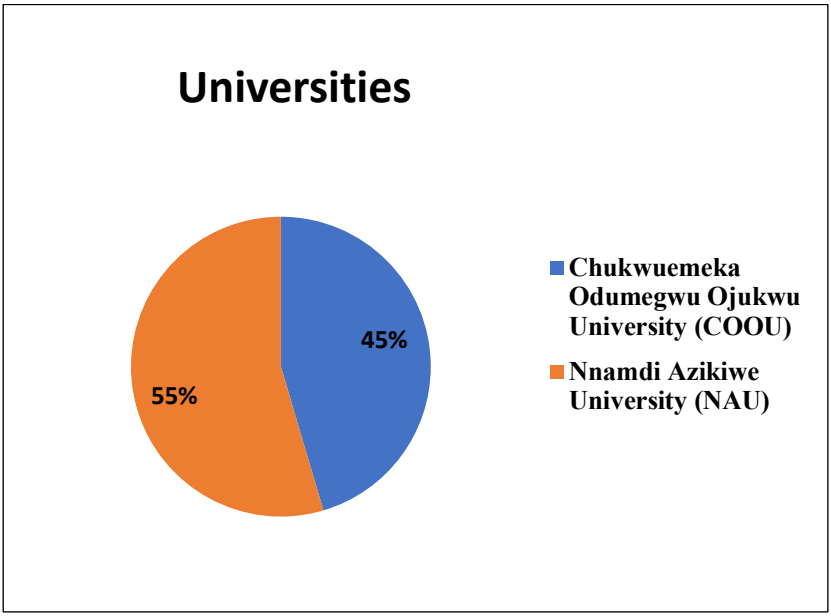


Figure 2

Percentage distribution of classes of participants

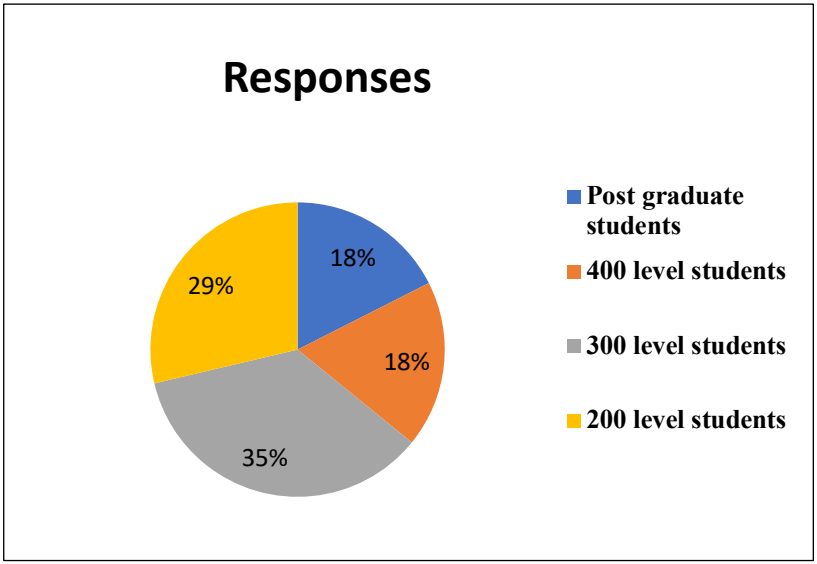


Figure 3

Insufficient field engagement has led to decline rate of students interests in geoscience

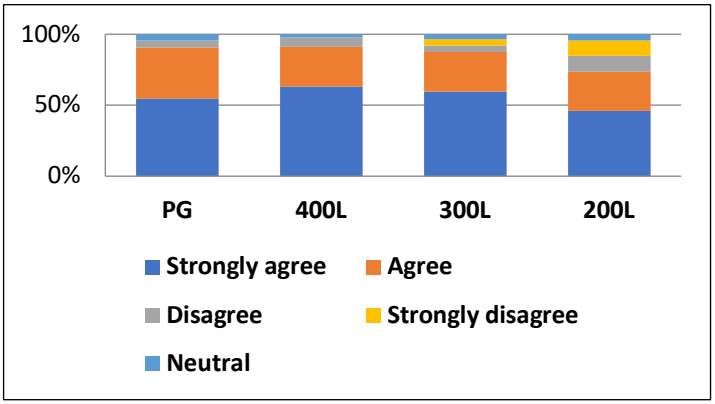


Figure 4

Participants feel intimidated amongst colleagues with more field experiences

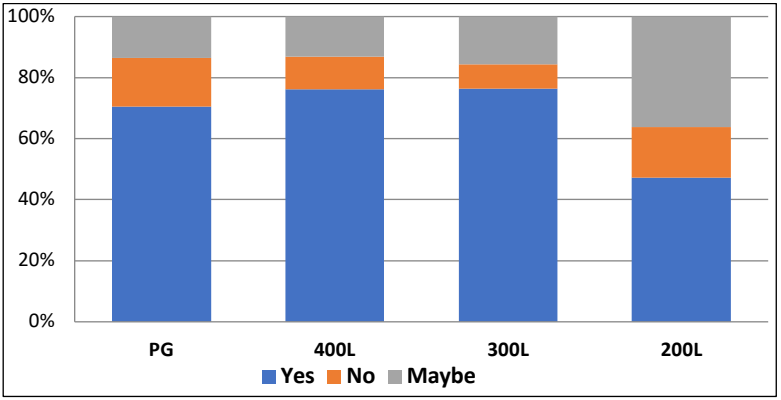


Figure 5

Appreciation of geologic scales and structures in textbooks and classroom

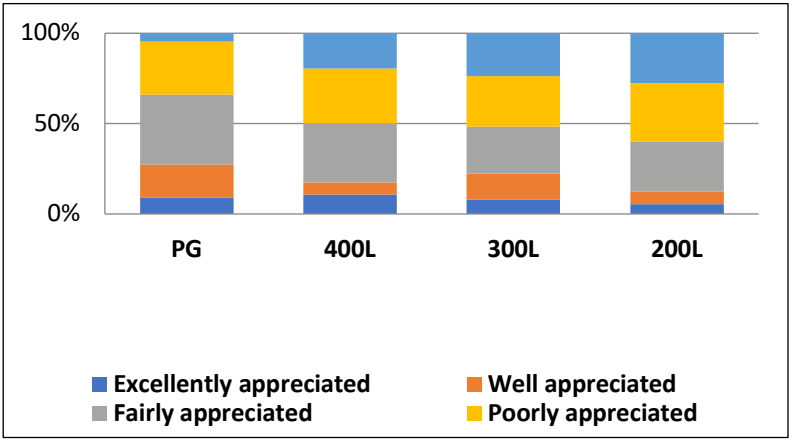


Figure 6

Participants' exposure to fieldwork

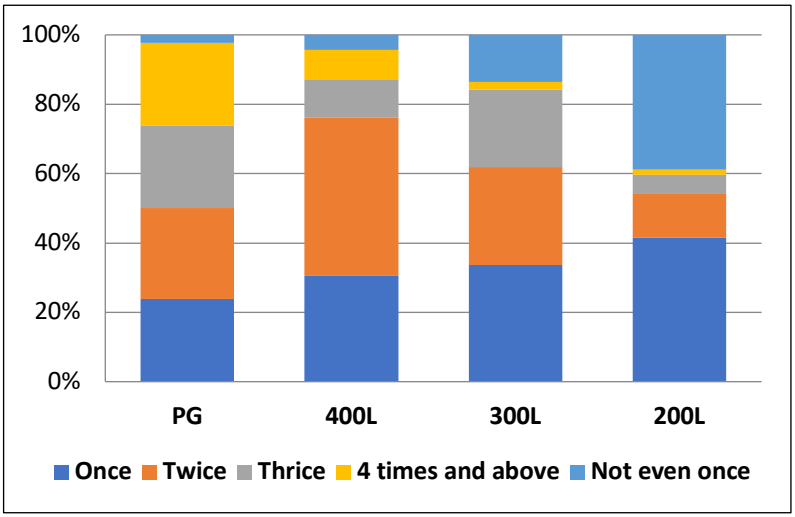


Figure 7

Participants' ability recall theory classes after examination

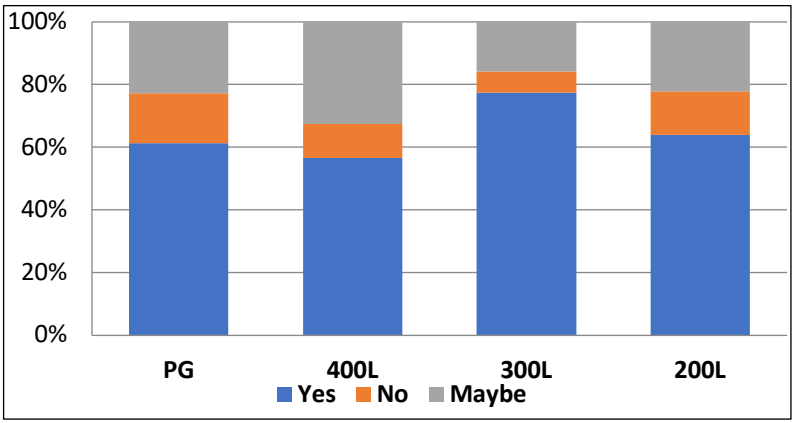


Figure 8

Students interest in geoscience admits declining quality of geoscience education

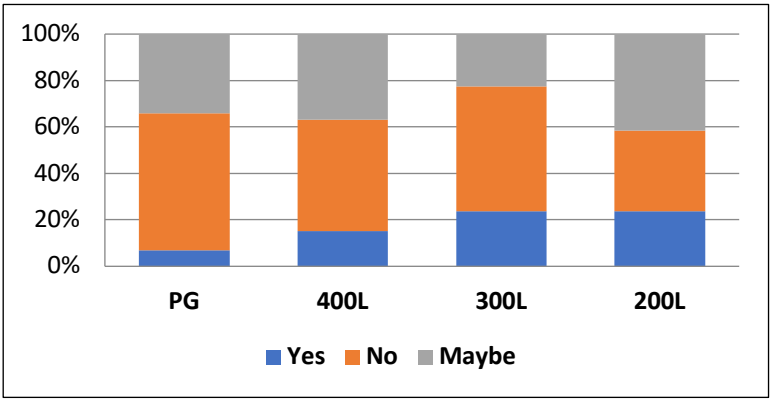


Figure 9

Insecurity and poor funding are among the causes lack of field engagement

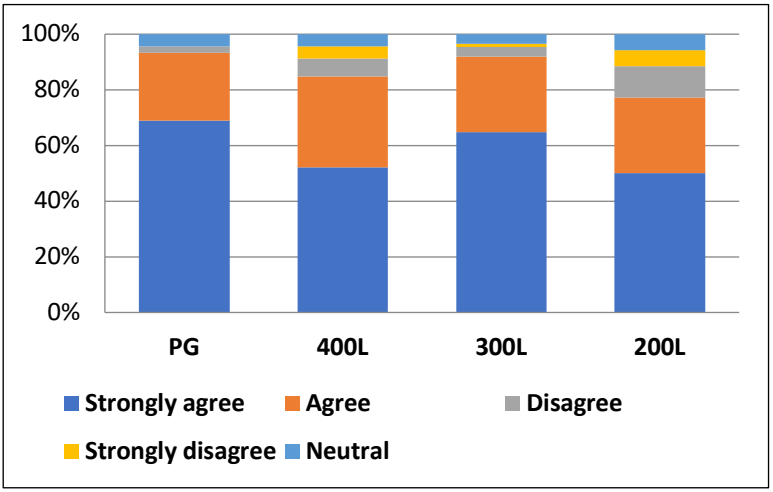


Figure 10

Geoscience departments should collaborate with international bodies for fieldwork grants and funds

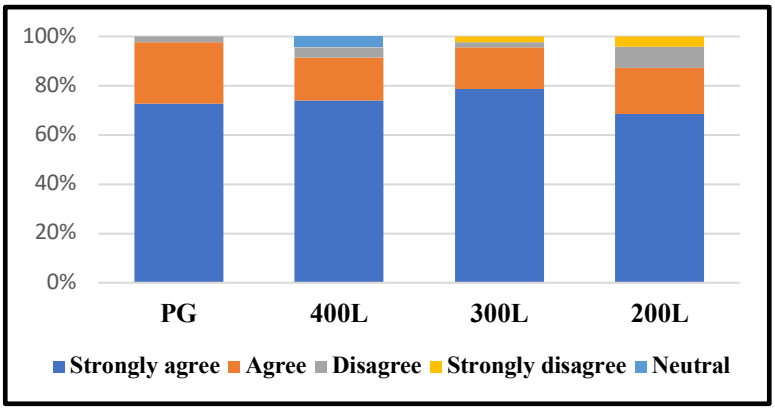


Figure 11

Geoscience departments should monitor students' admission for proper managements of allocated funds

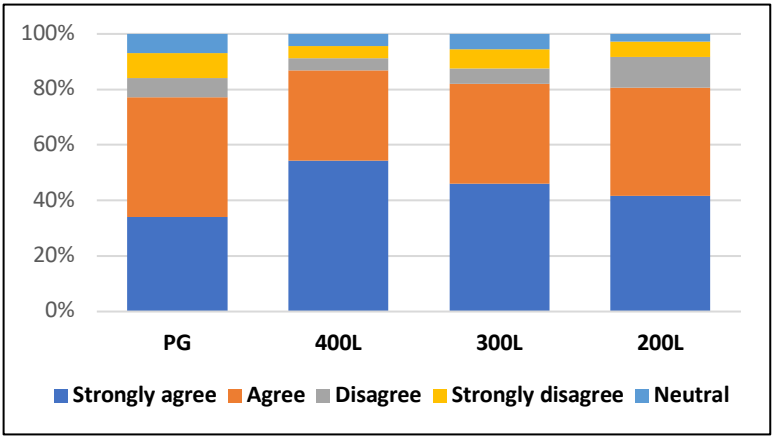


Figure 12

Geoscience curriculum should be adjusted to accommodate multiple internships to enhance firsthand experience where there is limited funding

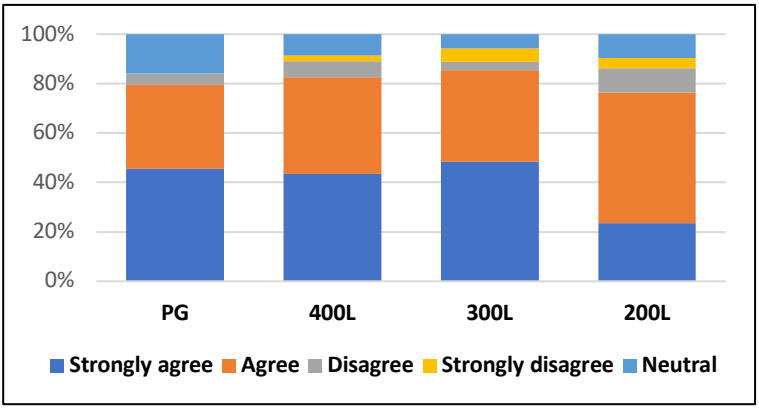
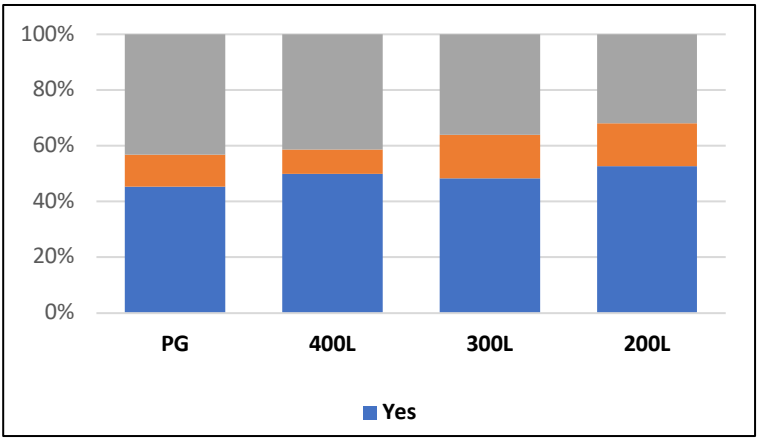


Figure 13

Virtual field trip should be used where there is limited funding



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EVALUATION OF THE LEVEL OF PERSEVERANCE IN ADOLESCENTS

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Abstract
The importance of perseverance in students' development and the learning process in today's society is increasingly a subject of thinking and implementation. This is seen as a must in education if we intend to assess behaviors and not only the information students acquire. Moreover, following the idea that values are transmitted both through family and school, we understand the importance of both, as seen in the specialized literature. This study mentions the importance of perseverance in the long term in students' lives while performing their duties and also in their relationships with their peers. This is due to improve the quality of learning and performing in different fields.
Moreover, this research dealt with the value of perseverance and proposed a validated instrument. It started from the idea that perseverance value is an ingredient that is tremendously needed in accomplishing one's goals, and it is something without which, most of the time, we will not be able to develop and grow. While all people want to be successful, only a few people know that success is to be accompanied by discipline, motivation, and perseverance. The instrument's items were initially grouped into five dimensions: Perseverance in Academic Achievement, Perseverance in Peer Relationships, Perseverance in Moral Behavior, Perseverance in Health Habits, and Perseverance in Physical Fields. The proposed instrument was tested in Mihai Ionescu Highschool, Bucharest, Romania, on a sample of 192 students, eight classes from the Secondary School, from fifth to eighth grade. The research design is Quantitative. Item analysis, exploratory factorial analysis, and reliability analysis led to item selection and the final design. As a result of the analysis, some items were taken out. The final model consists of 15 items

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grouped into four dimensions: Perseverance in Academic Achievement, Perseverance in Peer Relationships, Perseverance in Moral-Spiritual Behavior, and Perseverance in Physical Health. The instrument was given the name P-PARM. Future research will help in the subsequent enrichment of the instrument.

Keywords
Perseverance, instrument validation, values education, quality of learning, Secondary school, grit

INTRODUCTION

In the context of Christian education, transmitting values is an important tool without which humanity cannot function at its capacity (Spătărelu, 2020, pp.108-109), an instrument that can shape students not only for this life but also for the life to which God called us all. The value of perseverance is seen as that value that we need to have all our lives, from the moment we are born while growing day by day and facing difficulties in speaking, walking, and understanding the world around us. We try to persevere in all kinds of things we do in order not to remain at the same level, up to the moment we get old, when we still need to accomplish some targets, in order to slow down the immobility, both mentally and physically.

At the same time, the value of perseverance seems to be very important, and anyone knows how difficult it is to keep doing things when they deserve to be done, but even though it is not an easy job to do, especially when giving up is way much easier. Perseverance is also a magic ingredient that shows the difference between mediocrity and brilliance, between having the idea of writing a book, which is not such an easy task, and the actual result of really writing it (Habenicht, 2000). In simple words, perseverance means for someone to finish what he started (Psalm 1), to go on no matter the difficulties one meets on the way, and to find satisfaction in what one does, while accomplishing the tasks. Perseverance can also be seen as an ingredient that is tremendously needed in accomplishing the

targets we set in life, and it also represents something that gives us the power to go on.

Moreover, understanding that besides parents, who have a great influence on students concerning their school life, the teachers have an important role in teaching students to become perseverant (Spătărelu, 2021, p. 26). Nevertheless, this construct makes teachers aware of their tremendous job of building strong characters in students who will later become mature adults.

REVIEW OF LITERATURE

Spătărelu (2019, p. 57) mentions the central place that values in general have in education, and when focusing on the value of perseverance. Seibert (2021) specifies that teachers have in their attention the generation Z and the fact that this generation lacks experience in the field of higher critical thinking having the tendency to give up easily when facing challenges. Kostromina, Grishina, Moskvicheva and Zinovyeva (2018) speak about the decrease in importance of some values from generation to generation. On the other hand, there are the teachers who are asked to promote critical thinking and to foster perseverance through teaching strategies.

Huescar, Moreno-Murcia, Cid, Monteiro and Rodriguez (2020) mention the fact that having passion and perseverance for what one does, will help the person succeed despite challenges and adversity, being able to get to greater achievements in comparison to those that do not have these characteristics. In addition to this, they mention the effect of teacher-induced influence on grades and performance concerning their students. They also speak about mediatic effects of psychological needs of satisfaction such as motivation and grit as two factors, dependent on each other, focusing on perseverance that shapes student motivation and school success through the autonomy support transmitted by teachers.

Habenicht (2000) suggests a few guidelines that parents and teachers can use while guiding children. Among these, we find the idea of gradually teaching young children how to wait for something they want, engaging the children in activities that cannot be finished immediately, and helping children learn how to deal with frustrations. The author goes on with the idea of teaching the children that success and perseverance are closely related, while also teaching the children that impatience and impulsiveness can have very really bad consequences and helping children to overcome difficult situations when a task seems overwhelming and almost impossible to be accomplished.

Moreover, McKaughan (2018) approaches the issue of religious faith from the perspective of perseverance in faith when one faces significant doubt, especially knowing that not all religions give the same importance to faith – and also knowing that perseverance can be taken into consideration while one is amidst life's challenges and uncertainties. At the same time, Baruch-Feldman and Hoerr (2017), as well as Styk and Klinkosz (2021) focus on the necessity for teenagers to work on perseverance, resilience, and self-control, striving to set and reach their targets, this being an important ability in their lives without which they could not develop totally.

Duckworth, Peterson, Mathews and Kelly (2007) say that close to the intellectual talent which is needed in order to achieve great things in all professional domains one needs perseverance and passion in what one does. Also, Duckworth (2016) speaks about the desire that people have to succeed, either they are parents or children/students, educators, sportsmen or business people mentioning that the secret to a great achievement is not talent but a special blend of passion and persistence which she calls grit.

At the same time, Baruch-Feldman and Hoerr (2017) also use the term grit, while mentioning the way students want to do well in school, sports, to make good friends and to be great

on music. It should be noticed that in all these, students as well as adults need perseverance to succeed. One study that rises interest and brings light in this field is that lead by Duckworth et al. (2007), and which states that the achievement of difficult goals entails talent as well as sustained and focused application of this talent over time – meaning that you may be talented, but if you don't use your talent, this is worthless. The term grit is used to get together all that a person needs to succeed, such as the values of self-control and tenacity, as well as the ability to have an appropriate behavior when one fails, and the power to go on. In fact, the key in perseverance is to get to a way of thinking that helps one focus on improvement and hard work such as to accomplish the goals set for each step, learning how to turn disappointments into opportunities, to manage stress, and ultimately to be the best version of yourself.

The good news is that grit is something that one learns at home first, but especially in school, and it is not given as a special gift to some at their birth, fortunately, while others do not receive it. Teachers teach this grit also, and students learn how to take advantage of it. At the same time, Li, Zhao, Lin, Chen and Wang (2018), besides the real evidence which supports the importance of perseverance for long-term goals in predicting personal success, stress the importance of one factor that causes individual differences in perseverance, this being the belief in the free will in Chinese adolescents attending high school. Thus, it is revealed the power of free will as being a crucial tool in long-term goals accomplishments.

According to Styk and Klinkosz (2021, p. 1277) perseverance is seen as "an important component of human functioning" mentioning that two meaningful agents that help people accomplish their targets are perseverance and the power of motivation for them to bring some change, for the good, in their lives. This research also says that perseverance is "a trait of behavior determined by situational (external) and

personality related (internal) factors" (Styk & Klinkosz, 2021, p.1277). As a result, Styk and Klinkosoz (2021) found out that perseverance can have the same credibility as talent, bringing great results, not taking into consideration the profession, workplace, or organization. Not all the time the tasks we need to accomplish bring us satisfaction, therefore success needs to be accompanied by perseverance and the power to get rid of frustration and to the desire to give up. Thus, this value is in strong connection with intelligence and school achievements leading to professional success.

Waters (2021) presents perseverance as a solution to the rejection issue, which is present in human life, as a reality which cannot be denied, mentioning that there is no way for us to sometimes receive no answers, either at home, at school or at work, but using Bible verses to sustain the religious point of view, which is helpful in our lives, might help. Hupp (2021) sees perseverance as being not just a personal trait only, for which we need to work, but rather an opportunity for someone to help others in their way through life, in their troublesome situations, when not having any solution sometimes. This can be a way of promoting their own perseverance through leading, coaching and role modelling for financial as well as for emotional support, in order to get someone through difficult times. The author specifies that we will not always see perseverance as getting to its hopped endpoint, but without this value people will never know where they might have got. From this point of view the value of perseverance can be found in other life goals such as when trying to give up smoking or lose weight, or when seeking to become financially secure either at a young age or getting balanced in work and leisure activities when life asks you to do sacrifices in order to have more and more. Also, many other dreams can be talked here to be accomplished, from the perseverance perspective.

At the same time, Bandono, Bastari and Suharyo (2021) reveal the importance of the need we have for being successful,

while carrying out quality research assignments, and mention that the success is to be accompanied by discipline, motivation and perseverance, all these traits being taught in family and in school. Spătărelu (2021, p. 26) observes the influence of family background on students' school activity, mentioning that the family influences to a great extent the students' results. In this context it is shown that teachers should work as a team with the students' parents if we are to speak about efficiency and meaningful results. The two important factors, family and school should always stay together in trying to help the students go for success. While stating that even while researching one can face a lot of obstacles, the problem of how to get to success, how to find the solution to succeed – receives an answer which is the perseverance doubled by grit and motivation, on a long run.

METHODOLOGY

The construction and validation of an instrument to measure the level of responsibility of middle school students was the main goal of this research. As a first step in this endeavor, several tools compiled by researchers with experience in this field were selected and studied. Different authors (Bandura, 2004; Baruch & Hoerr, 2017; Elliot, et al., 2020; Farrington et al., 2012; Habenicht, 2000; Huescar et al., 2020; Keown & Bourke, 2020; Kool et al., 2018; Laursen, 2015; Ohtani, et al, 2020; Seibert, 2021; Shechtman et al., 2013; Styk & Klinkosz, 2020; Tang et al., 2021), enriched the study with the information provided. Following the analysis of the dimensions proposed by these authors, the decision was made for the structure of the own instrument which was created as a tool for this research. The final structure includes some modified items of the previously cited authors, changes made in order to have better and clearer results on the population we chose, but also dimensions and items that were added following the

study of the specialized literature mentioned in the introduction, as well as some items which were created especially for this study, more specifically, the dimension named Perseverance in Moral-Spiritual Behavior.

The initial instrument was made up of 25 items, grouped into five dimensions: perseverance at school, in relationships, in the moral domain, with regard to health and in the physical domain. The items were arranged in a different order than the one in which they were initially organized, in order to avoid intuiting the assessed domain. The instrument was subject to expert review, both to verify the relevance of the items and to assess their clarity. After coding the answers, the resulting database was statistically analyzed using the SPSS program, in three steps, item analysis, factor analysis and reliability.

Practicability, purpose of the study and population

The study research was meant to emphasize the importance of the value of perseverance in teenagers' lives, either when it is learnt at home or at school. It is also important to notice that not all teachers or schools give a great importance on this matter, reason for which there are not so many researches in this field. Also, unfortunately, not many parents try to give the same importance to teaching this value to their children.

The instrument was applied to a group of 192 students, aged between 10 and 16, at *Mihai Ionescu High School* in Bucharest. It was aimed to ensure the minimum number of five subjects for each item. During completion, students were assisted by the instrument developer to ensure that all understood the meaning of the items. The instrument was developed in English and used in that language. For each item of the instrument there were answer options given.

RESULTS

In the preliminary analysis of the P-PARM Instrument through the correlations between the variables it is observed that there are numerous sets of correlations above 0.30. Adding the fact that no correlations above 0.80 were identified, it can be said that multicollinearity and singularity are ruled out. Furthermore, the results show that the variables are suitable for factorization, as the Barlett Test shows $\chi 2$ (276) = 1716, $p < 0.001$. So, the correlation matrix differs significantly from the identity matrix. The KMO index is 0.836, showing that factor analysis can be used. For the 25 initial items, the Cronbach's Alpha coefficient was 0.852, a value that allowed the continuation of the analysis and improvement of the instrument through other types of analysis. During the factor analysis, several problems were identified for which the best solution was sought. First, several items had minimal meaning in the overall context, and one of the dimensions was not represented by enough items. After repeating the analyzes with different sets and dimensions, it was decided to join two dimensions and withdraw non-significant items. Thus, the dimension of Perseverance in preserving health was joined to the dimension of Perseverance in the field of physical development, being considered two very close domains. The new instrument lost 9 items and remained with 15. For the new instrument variant, the entire analysis was redone, in all its stages. Regarding the second matrix, there are enough correlation sets above 0.30 and below 0.80, thus multicollinearity and singularity are avoided (Table 1).

Table 1
Correlation matrix

	it1	it3	it6	it7	it8	it9	it10	it12	it13	it14	it15	it17	it20	it22	it23
it22	,028	,511	,127	,131	,549	,230	,197	,252	,493	,323	,219	,244	,177	1,000	,119
it3	-,060	1,000	-,057	,162	,721	,206	,194	,175	,637	,222	,141	,188	,023	,511	,070
it6	,148	-,057	1,000	-,137	-,075	-,177	,009	-,018	-,036	-,054	-,070	-,026	,389	,127	-,001
it8	-,060	,721	-,075	,183	1,000	,405	,286	,201	,593	,314	,256	,169	,004	,549	,162
it9	-,007	,206	-,177	,271	,405	1,000	,403	,201	,141	,376	,416	,158	-,005	,230	,346
it7	,004	,162	-,137	1,000	,183	,271	,143	,359	,105	,222	,245	,318	,014	,131	,147
it23	,163	,070	-,001	,147	,162	,346	,247	,095	-,028	,167	,277	,011	,023	,119	1,000
it12	-,068	,175	-,018	,359	,201	,201	,134	1,000	,168	,127	,246	,346	,120	,252	,095
it13	-,086	,637	-,036	,105	,593	,141	,145	,168	1,000	,092	,155	,140	,064	,493	-,028
it14	,034	,222	-,054	,222	,314	,376	,503	,127	,092	1,000	,412	,109	,060	,323	,167
it15	,075	,141	-,070	,245	,256	,416	,574	,246	,155	,412	1,000	,252	-,011	,219	,277
it17	-,016	,188	-,026	,318	,169	,158	,145	,346	,140	,109	,252	1,000	-,074	,244	,011
it1	1,000	-,060	,148	,004	-,060	-,007	,074	-,068	-,086	,034	,075	-,016	,248	,028	,163
it20	,248	,023	,389	,014	,004	-,005	,009	,120	,064	,060	-,011	-,074	1,000	,177	,023
it10	,074	,194	,009	,143	,286	,403	1,000	,134	,145	,503	,574	,145	,009	,197	,247

For the final instrument, Barlett Test shows $\chi 2\ (105) = 778$, $p < 0.001$, thus, the correlation matrix differs significantly from the identity matrix, the variables can be factored. The

KMO index is greater than 0.050, so factor analysis can be used for this database. The obtained coefficient is 0.0776. The four components that have Eigenvalues above 1 explain 58.2% of the total variation of the items (Table 2).

Table 2

Total variance explained

Component	*Initial Eigenvalues*			*Extraction Sums of Squared Loadings*			*Rotation Sums of Squared Loadings*		
	Total	*% of Variance*	*Cumulative %*	*Total*	*% of Variance*	*Cumulative %*	*Total*	*% of Variance*	*Cumulative %*
1	3,93	26,2	262	3,93	26,2	26,2	2,65	17,7	17,7
2	1,85	12,3	38,5	1,85	123	38,5	2,77	18,5	36,1
3	1,62	10,8	49,3	162	10,8	49,3	1,62	10,4	46,8
4	1,33	8,9	58,2	13,3	89	58,2	1,71	11,4	58,2
5	0,98	6,5	64,7						
6	0,84	5,6	70,3						
7	0,79	5,2	75,6						
8	0,66	4,4	79,9						
9	0,60	4,0	84,0						
10	0,57	3,8	87,8						
11	0,48	3,2	90,9						
12	0,44	3,0	93,9						
13	0,35	2,4	96,3						
14	0,33	2,2	98,5						
15	0,23	1,5	100						

Note: The cumulative for factor 1 is 26,2. The cumulative for factor 2 is 38,5. The cumulative for factor 3 is 49,3, and the cumulative for the four factors is 58,2.

In Figure 1 it can be seen that the four chosen factors are placed outside the plateau line, which is installed starting with factor 5 and 6, plateaus slightly further from factor 4 on the diagram.

Figure 1
Scree plot

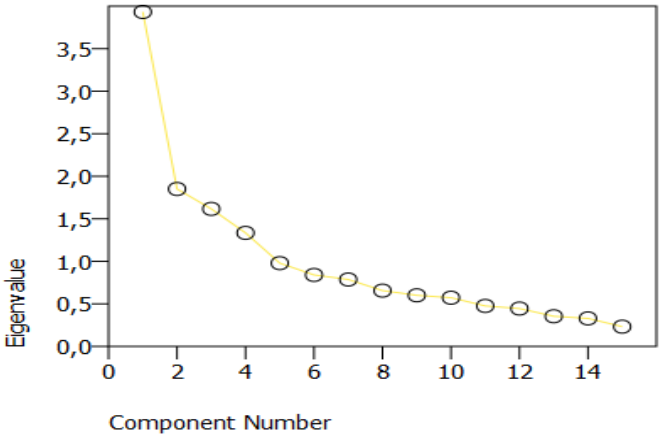


Table 3 shows the item saturation for the four factors, represented by the item-factor correlation. The first factor collected items 9, 10, 14, 15, and 23. The second factor collected items 3, 8, 13, and 22. The third factor collected items 6, 20, and 1 and the fourth factor collected items 7, 12, and 17. The highest correlation is observed with item 3. The value of 0,82 represents the correlation between item 3 and factor 2.

Table 3
Rotated component matrix

	Component			
Items	Perseverance in healthy habits	Perseverance in moral-spiritual behavior	Perseverance in academic achievement	Perseverance in peer relationships
It. 9	**0,68**	0,18	0,17	0,14
It. 10	**0,77**	0,12	0,02	0,02
It. 14	**0,67**	0,19	0,02	0,05

It. 15	**0,73**	0,07	0,02	0,24
It. 23	**0,57**	0,05	0,11	0,03
It. 3	0,11	**0,87**	0,07	0,07
It. 8	0,31	**0,82**	0.09	0,06
It. 13	0,01	**0,83**	0,04	0,08
It. 22	0,21	**0,71**	0.23	0,19
It. 6	0.14	0,03	**0,75**	0,05
It. 20	0,01	0,08	**0,79**	0,08
It. 1	0,22	0,14	**0,54**	0,11
It. 7	0,25	0,03	0,07	**0,68**
It. 12	0,09	0,15	0,07	**0,76**
It. 17	0,07	0,14	0,07	**0,72**

Extraction Method: Principal Component Analysis. **Rotation Method**: Varimax with Kaiser Normalization. The significant factorial loadings are written bolded: Here are the dimensions: (1) Perseverance in Healthy Habits (PHH); (2) Perseverance in Moral-Spiritual Behavior (PMSB); (3) Perseverance in Academic Achievement (PAA); (4) Perseverance in Peer Relationships (PPR).

At the end of the analysis, Cronbach's alpha coefficient was also calculated for the new version of this instrument. The value obtained was 0.753, which allows the use of this tool. The final description of the factors by means of the key concepts contained in the affiliated items can be found in Table 4.

Table 4
Factors and keywords from items

	Perseverance in Healthy Habits	Perseverance in Moral-Spiritual Behavior	Perseverance in Academic Achievement	Perseverance in Peer Relationships
Keywords from items	9. right choices in eating habits 10. physical exercises	3. constant prayer 8. Bible time 13. going to church regularly	6. interest in learning 20. lack of concentration	7. improving learning even in difficult moments with classmates 12. contact with classmates even

	14. spending time outdoor 15. sport practicing 23. healthy habits.	22. spending time with God	1. lack of constancy in learning	when things go wrong 17. keeping going on even when disrespected by classmates.

CONCLUSIONS

Even though students do not perceive perseverance from the point of view the adults see it, the study showed that it is an important ingredient in teenagers' lives, one that is greatly needed in accomplishing one's goals. It was also proven that without perseverance, most of the times we would probably not accomplish our goals, especially when we face obstacles, but the study also tells us that teenagers have the power to go on when led by perseverance and grit, being accompanied by their friends and encouraged by teachers or other adults around them.

Moreover, understanding that besides parents, the teachers have an important role in teaching students to become perseverant, gives the teachers a lot of reasons not to give up helping them. Taking time to notice the fields mentioned in this study, Perseverance in Academic Achievement, Perseverance in Peer Relationships, Perseverance in Moral-Spiritual Behavior, and Perseverance in Physical Health, gives strength to students and helps them become stronger, because these fields have a strong connection with everyday life.

Recommendations for further study: Future research that might require more respondents will definitely help in the subsequent development of the instrument, in order to bring more information in this field, that can strengthen some dimensions belonging to the perseverance value required for the benefit of teenagers.

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SOCIAL EMOTIONAL LEARNING FOR STUDENTS AND EDUCATORS: A FRAMEWORK FOR PEDAGOGY AND CLASSROOM MANAGEMENT

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Abstract
Research has shown that Social Emotional Learning (SEL) enhances student-teacher relationships, enhances students' learning and their success in school and in life, and improves teachers' well-being and job satisfaction. This article presents a theoretical overview of the social emotional learning benefits to students and teachers using Collaborative for Academic, Social, and Emotional Learning CASEL's competencies as a conceptual framework. A number of practical strategies and examples based on SEL competencies are presented, such as classroom strategies to build student-teacher relationships and improve students' learning and behavior, and strategies to enhance teachers' wellbeing and work satisfaction. It is concluded that emotions and learning are inseparable, and they play a vital role in students' academic success. The role the teachers should be help their students understand their emotions and those of others, know how to interact with others and become more caring, responsible and empathetic citizens, and learn how to set goals and make wise decision that will affect their present and future.

Keywords
Social emotional learning, classroom management, social emotional learning classroom strategies

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INTRODUCTION

Social emotional learning (SEL) has been known to make the classroom environment more conducive to children's learning. It has also been associated with improved academic test scores, intrapersonal and interpersonal skills, effective problem-solving and decision-making skills, and fewer discipline and behavioral problems. SEL teaches a variety of skills, such as empathy, self-control and a positive mindset, and it has also been found to have immediate and long-term benefits on both students and teachers. SEL competencies help students and teachers cope with everyday challenges and demands, and improves learning and wellbeing.

This article aims to present a theoretical overview of the conceptual framework of social emotional learning (SEL) and its impact long-term benefits to academic learning and classroom management, followed by practical SEL strategies for students and teachers.

A brief overview of social emotional learning

Social and emotional skills begin developing from birth and are part of everyday life. Like other skills, such as cognition or language, social and emotional skills are essential in promoting learning, achievement goals, decision making, empathy and also in regulating emotions. Social emotional learning is multifaceted and impacts in a significant way not just individuals, but also schools, communities and the society at large (Kamath, 2020).

A critical period of children's social-emotional development is spent at school, and how learners and teachers feel in the classroom could either enhance or interfere with the learning journey (Williams et al., 2015). Emotions and learning are inseparable and they influence the dynamic of the learning environment and cognitive skills such as attention, memory, executive function, decision-making, critical thinking, problem

solving and regulation. Positive learning emotions such as interest, creativity, curiosity, passion, and engagement activate the reward system in the brain, make the learning experience desirable, and sustain focus and attention. On the other end of the spectrum, negative emotional states such as anxiety, stress, fear, worry and disengagement interfere with the learning process and kills students' motivation and their ability to learn (Desautels, 2023; Immordino-Yang, 2007; Sprenger, 2020). This is why schools are considered "appropriate places" to teach SEL (Weissberg, 2019) and expected to play an important role in developing children's social and emotional competences (European School Education Platform, 2022; Jones & Bouffard, 2012). Students are social and emotional beings and cognition alone is not sufficient for success in the classroom or later on in life (Goleman, 1995).

Social emotional skills would not only help students create a balance between their interpersonal and intrapersonal needs, but it will also help them problem-solve, address stressful situations, and become responsible and resilient adults. Research suggests that students who experience positive mental health and wellbeing are more likely to engage meaningfully in academic activities and perform better academically, have higher self-esteem and greater empathy, and enjoy heathier and more positive relationships (Desautels, 2023; Sala et al., 2020; Sprenger, 2020). SEL is more relevant than ever in the aftermath of the COVID-19 pandemic which significantly impacted all learners, especially those from vulnerable backgrounds, and affected their psychological well-being.

Social emotional learning supports long-term academic learning for all children and it is backed by evidence-based research. Based on a meta-analysis (Durlak et al., 2011) of 213 school-based SEL programs, it was found that when compared to controls, SEL participants (148,189 students) showed significantly improved social and emotional skills (23%), improved achievement test scores (11%), improvement in

attitudes about self, others and school (9%), improvement in school and classroom behavior (9%), and decrease in emotional distress such as anxiety and depression (10%) and in conduct problems, such as classroom misbehavior and aggression (9%). Moreover, the study has found that the benefits of SEL training are long term. Children who received SEL training in kindergarten were less likely to commit crimes, use drugs or psychiatric medications, or be on public housing lists, and were more likely to graduate from high school on time and have stable employment.

Other follow up studies that examined the longer-term benefits of SEL programs echoed the earlier findings and pointed out that there were both immediate and long-term benefits to students' academic, social and emotional skills (Greenberg et al., 2017; Jones & Doolittle, 2017; Osher et al., 2016; Sklad et al., 2012; Taylor et al., 2017; Wiglesworth et al., 2016). On the other hand, students lacking competency in SEL skills are more likely to struggle with organizational aspects and completion of assignments, are less actively engaged in class and social activities, and have difficulty in managing depression, anxiety, or anger (Eklund et al., 2019).

Theoretical framework

This article is based on the Collaborative for Academic, Social, and Emotional Learning (CASEL) framework, also known as the "CASEL 5" or "CASEL wheel" (Figure 1). CASEL is an organization based at University of Illinois in Chicago promoting SEL in North America and internationally, and helping schools make SEL programs part of P-12 education. According to CASEL (2023), social emotional learning is defined as "the process through which all young people and adults acquire and apply the knowledge, skills, and attitudes to develop healthy identities, manage emotions and achieve personal and collective goals, feel and show empathy for

others, establish and maintain supportive relationships, and make responsible and caring decisions" (CASEL, 2023, para 1). In other words, SEL is the process that helps learners develop social and emotional skills needed to effectively recognize and manage their emotions, and respond to stressful situations without fear of being judged or punished. SEL also gives students adequate tools to build healthy relationships with others, solve problems effectively, make intelligent decisions and achieve success in goal setting.

The CASEL model identified five core comprehensive and interrelated areas of competence associated with SEL, also known as the five main competencies which can be taught and implemented at different developmental stages, from childhood to adulthood, and also across diverse cultural contexts. The following is a short summary of the five competencies and key components of effective SEL (CASEL, 2023):

- *Self-awareness* – the ability to identify and recognize one's emotions, thoughts and values; to recognize their strengths and limitations, sense of self-efficacy and self-confidence; and understand how their behaviors, attitude and actions are influenced in different situations. This will help students create a mindset that facilitates continuous growth.
- *Self-management* – the ability to manage and regulate one's impulses, emotions, and behaviors in challenging situations, in order to stay motivated and achieve their goals. This is a critical component of success both in school and in life.
- *Social awareness* – the ability to understand, respect and empathize with other people's views or perspectives who may come from diverse backgrounds, cultures, and experiences. It also involves respect for others by identifying social norms of behavior in different settings and demonstrating empathy to others.

- *Relationship skills* – the ability to establish and maintain positive relationships with others through communication, active listening, cooperation and collaboration, and also negotiation during conflict situations.
- *Responsible decision making* – the ability to make well-informed decisions, to evaluate judgments, and to make meaningful and constructive deductions and inferences across different contexts, by taking into consideration consequences, as well as ethical, moral and safety standards.

The main purpose of these competencies is to facilitate both immediate benefits, such as students' academic performance and social relationships, reduced behavioral problems and psychological distress, and also long-term benefits for young people to succeed in school, as well as later in life (Elias, 2014; Jones & Kahn, 2017). The development of SEL competencies is related to the neuropsychology concept of Executive Functioning (EF) that helps students build higher level cognitive and social emotional skills. Executive functions are not born. They are rather learned at different developmental stages through various experiences, many times through experiences provided in school settings.

If EF skills provide students with cognitive tools, SEL provides them with awareness to apply cognitive processes to different situations. In other words, "SEL has students ready to learn, while EF is necessary for learning to take place" (Sprenger, 2023, para 1). For example, when faced with assignments, students use EF skills such as time management, task completion, structure and organization in combination with SEL competencies of mental control and self-regulation when approaching challenging assignments without procrastinating and having feelings of frustration towards school. The same applies in relationship situations, when EF skills help students remember social norms of behavior in combination with SEL competencies of empathy, understanding other people's

views, and the capacity to make and maintain friendships (Blair, 2010; Liew, 2011; Perry, 2020; Ursache, Blair, & Raver, 2012).

According to Kamath (2020, para 1), "All aspects of schooling require social-emotional competency and a mastery of executive function," and they are directly interconnected. In the learning context, students are making use of both, EF and its three components (working memory, inhibitory control, and cognitive flexibility), and SEL and its competencies (self-awareness, self-management, social awareness, relationship skills and responsible decision making). When teachers integrate EF and SEL into all aspects of schooling, they equip their students with cognitive and emotional skills to guide their internal feelings and external behaviors, strategies to get through personal and interpersonal challenges and difficulties in life, and impulse inhibition in order to delay gratification and work collaboratively in different social contexts in order to achieve goals (Sprenger, 2023).

SOCIAL EMOTIONAL LEARNING AND CLASSROOM MANAGEMENT

Classroom management is a fundamental skill set for teachers to facilitate a positive, supportive and structured learning environment for all students and establish clear classroom expectations and procedures. Classroom management ties very well into social emotional learning, as evidenced in a study conducted by Jones et al. (2014) and supported by Maslow's hierarchy of needs. Paraphrasing Alan Beck's (1994) words, Maslow should come before Bloom, as SEL teaches students how to deal with stress and anxiety, and only then they will be able to focus on higher-level thinking.

The school classroom is a wonderful place for students to develop social and emotional skills if they are provided with a safe learning environment designed to facilitate student

engagement, collaboration, connection, decision making, and to help students learn to process their emotions. Learning is enhanced in a classroom environment where students feel safe to take risks, acquire new skills and knowledge, and know they are valued and appreciated (Evertson et al., 2003; National Research Council, 2000). Research shows that SEL should not be an add on for the teacher, but rather integrated into the classroom life, connected to academic content, and made part of the classroom routines and procedures throughout the school year (Norris, 2003).

Dr. Jacqueline A. Norris (2003), assistant professor of education at The College of New York, emphasizes that a fundamental SEL skill is helping students develop their ability to recognize emotions when they experience them and develop appropriate ways to deal with them. This implies that students need to have the appropriate language skills to identify their feelings, and understand that very often they may feel more than one emotion at the same time. For example, they may feel excited about going on a field trip or vacation, but upset about missing a friend's birthday party.

Students also need to learn that beyond naming their emotions, they need to learn how to act and respond appropriately when feeling angry or upset. Classroom activities appropriate for teaching these skills include reading and discussing stories or real-life cases where individuals have had to deal with similar emotions, and having students role play appropriate ways of handling emotions (Sprenger, 2020). Students could also be taught to use Active Listening, I-Messages and other effective communication skills to learn how to express themselves, and how they are affected by other people's words and actions. Active listening could teach them how to paraphrase message received from others and check on their understanding, and I-Messages activities could teach them how to avoid blaming others. Other activities such as pair-share, role play and other group activities can teach them skills such as, empathy,

decision-making, problem solving, goal setting, consequential thinking and copying strategies to deal with their emotions, conflict and challenges (Norris, 2003).

As teachers integrate these SEL skills into the academic content, students will learn how to apply and practice these skills in academic subjects as well. For example, in language arts and history students could be asked to discuss and role play conflicts in a story or novel by getting into the skin of various characters and taking on different perspectives. This will help students have a richer and more accurate experience, and build empathy. To develop decision-making and problem-solving skills, teachers could ask students to complete a "Problem Solving Diary" and write about the problems they were having and the alternative approaches for solving their own problems or any conflictual situations. This could even be used for disciplinary situations and for discussion consequences for students' actions (Norris, 2003; Sprenger, 2020).

The following is a list of practical strategies and activities developed by researchers on how to implement SEL into the classroom and they can greatly benefit students of all ages. These strategies are adapted from Dr. Marilee Sprenger's (2020) book, "*Social-emotional learning and the brain: strategies to help your students thrive*," and they are based on CASEL's competencies.

CLASSROOM STRATEGIES TO BUILD STUDENT-TEACHER RELATIONSHIPS

Positive and supportive student-teacher relationships have many benefits and have long-lasting implications for students' academic and social development, and are known to contribute to higher achievement levels and improved classroom management. The following are some suggestions on how to foster positive student-teacher relationships:

Greet students at the door

Greeting students at the door as they arrive for school or leave is one of the best ways to develop personal connections with them. Saying their names, making eye contact, and giving them a few words of encouragement as they walk through the door, is a valuable experience. Along with a verbal welcome, some students may prefer a handshake or a hug. Research (Cook et al., 2018) has found that greeting students every morning led to a 20% increase in achievement and 9% decrease in disruptive behaviors.

Use ways to show you care for the students

According to Sprenger (2020), students need to know that teachers truly care for them by *providing structure* (rules fairly applied to all and consistent expectations); *offering choice*s (students seek autonomy and need to be involved in decisions); *showing interest* (learning personal information about students' lives, asking them questions about their favorite music or their favorite sport or sports events they are involved in); *being optimistic* (ensure your students that you believe in them and their ability to succeed); and *acknowledge their feelings* (help them process their feelings and show emotional support).

Call students by name

Calling students by name is very important as it gets their attention and it tells them that they are important. This enhances the student-teacher relationships and it gives students "a feeling of belonging that can make a world of difference to your students" (Sprenger, 2020, p. 26). While some students may enjoy to be called on all the time and get to answer or ask questions, others maybe more shy or reluctant to be called on as they may not know the answer or feel embarrassed. To be fair to all students, teachers can use different strategies to call on their students, such as: *equity stick* (write each student's

name on a popsicle stick, place them in a cup and draw one name each time you ask a question) or *stack the deck* (write students names on an index card and pick off a card each time you call on students).

Nurture student–teacher relationships

Establishing, maintaining and restoring student-teacher relationships is very important as it increases academic engagement and it decreases disruptive behavior. Strategies to establish relationships include positive greetings at the door, asking open-ended and reflective questions, and incorporating student-led activities. Strategies for maintaining student-teacher relationships include regular check-ins, positive interactions, and recognition of good behavior. Repairing and restoring student-teacher relationships maybe be necessary at times, and may come in different forms such as: avoid keeping track of students' mistakes; criticize behavior, not the student; take responsibility for your part of the problem when needed; work with the students affected and make things right, then follow up (Sprenger, 2020).

Teach empathy

Teachers have a great opportunity to help their students develop empathy and compassion for others, and can use strategies such as: *modeling* (students watch their teachers' reactions and interactions with other students); *seeking to understand* (ask students: "can you help me understand how you see this?") helps lower student's stress and it makes it easier for them to trust and share with you; *creating a kindness wall* with captions like, "What kind act did you see or do today?"– students can be encouraged to show kindness by giving them the opportunity to write kind notes and place them on bulletin boards; *engaging students in community service projects* such as food drives, visiting nursing homes or picking up litter – this

gives students an opportunity to do something for others and identify with other's needs; *reading* helps students relate to and empathize with characters from books and stories (Sprenger, 2020).

CLASSROOM STRATEGIES TO TEACH SELF-AWARENESS

Teachers have a great opportunity to help students become aware of their feelings. The following are strategies to help students become aware of what they are feelings, name them feeling and respond to them in a healthy way.

Check-ins

Student check-ins are a great way to get to know students better and learn about their challenges, to find out how they are feeling and make them aware of themselves. Sprenger (2020) makes the following suggestions:

- As they arrive in the morning, ask students to write on a *sticky note* the answer to the question "How are you feeling right now?"
- Use the colors of a *stoplight* to encourage students to express how they feel. They can choose the color that best describes their current emotional state. Green may indicate a good emotional state and mean go right in and begin your work. Students in the green zone are typically feeling happy, safe, content, focused, cooperative, ready to learn and solve problems. Yellow means slow down and be careful since their brain is sending their body a warning that they may be in danger of upsetting others. Students in the yellow zone may be stressed, irritable, tired, hungry, thirsty, sad, frustrated, misunderstood, ignored, or worried. Red means stop and seek help. Students in the red zone may feel frozen in fear or ready to run away as their hearts may be pounding,

muscles tightening, and breathing getting faster. Their body is sending a red-light warning and they need to first calm their feelings before they are ready to focus and learn.

- Use an *emoji* chart similarly to the stoplight approach by using colors (e. g. yellow for joy, red for anger, blue for sadness, green for disgust and purple for fear) to help students express and label their emotions. Some teachers use a desk chart for each student, while others prefer a large wall chart where students can check and identify their feelings.
- Use an *inventory check-in* by asking students to finish a sentence of answer a question by using five or less words to describe their previous day (e. g. "The best news I've had in the past week is _____; "What is the main challenge you face in school/family right now?"
- Use *remote check-ins* when students are sick or don't show up at school, by letting them know that they are missed and you are thinking about them. When students are out of school for extended periods of time, initiate a video call once a week to show them you care and find out how they are doing. Placing a phone call, initiating a video call or a home visit, could be great avenues for check-ins.

Emotion word wall to foster emotional literacy

Emotion Word Walls (Table 1) are helpful for students' social emotional learning, but also for developing their vocabulary to describe the feelings expressed by some of the characters studied in different classes. Emotion labeling plays an important role in self-regulation and responding to conflicts in a healthy manner.

Journaling

This is an appropriate activity for adolescents to develop a sense of self-awareness. Students can either journal to explore and evaluate their own thoughts, emotions and behaviors, or their favorite characters from language arts, history or science.

Listening to the body

This is a great way to help students have a good relationship with their body and learn how to self-regulate. Children who learned to suppress their feelings because of being told that what they are feeling or doing is wrong, don't trust themselves. Also, children who experienced traumatic events may be disconnected from their feelings, and instead of anxiety or fear they have stomachaches muscle tightness or sweaty hands, and instead of anger or frustration they have tightness in the chest, rapid heartbeat, accelerated breathing or teeth gritting. Dr. Desautels (2023) suggests that teaching students to listen to their bodies, to be present with themselves and be aware of their nervous systems is vital, as "brains in pain cannot learn".

Growth mindset activities

The term *'growth mindset'* has been coined by Dr. Carol Dweck (2006). Nurturing a growth mindset in students is essential to SEL as it helps them see challenges and obstacles as learning opportunities and as a way to progress toward their desired goals and outcomes. Teachers could use short questionnaires to help students develop their mindsets, by asking questions such as: "Do you give up easily? Could you change so that you give up less easily?"; "When you are faced with a difficult task, how likely are you to stick with it?"; "How confident are you that you can find ways to accomplish your goals?" Teachers could also use reflective journal writing exercises or drawing and ask students to write or draw something that represents their feelings, or think of the progress

they made on a task or in their behavior. Students could also reflect on the last time they showed empathy to a classmate, or brainstorm strategies they could use next time to solve a team problem and do things differently. These are great exercises to help students boost their self-efficacy and self-confidence, see how their emotions affect themselves and others, and foster a growth-mindset.

CLASSROOM STRATEGIES TO TEACH SELF-MANAGEMENT

If self-awareness teaches students how to identify and become aware of their emotions, self-management teaches them how to deal with those emotions, or how to self- regulate and coregulate. The goal of any teacher should be to help their students learn how to regulate their thoughts, emotions and actions in various settings and situations by teaching them CASEL's (2015) six components of self-management: impulse control, stress management, self-discipline, self-motivation, goal setting and organizational skills. Here are some examples:

Begin and end each class with deep breathing

Researchers (Desautels, 2023; Elias, 2014) suggest breathing exercises to help students control their impulses. Three deep inhales and exhales oxygenate the frontal lobe, calm the emotional brain and release anxiety and fear. Breathing exercises help students regulate their feelings, calm down and transition to a state of learning readiness. There are many different breathing techniques and the following are some examples:

- *Flower breaths*: ask students to make a fist and pretend they hold a flower. Ask students to smell the flower and take a deep breath in through the nose, hold the breath in, and then slowly breathe out through the mouth so they don't disturb the flower.

- *4 x 4*: ask students to breathe in through their nose to the count of four, hold for a count of four, exhale through their mouth to a count of four, and hold again for a count of four.
- *4-7-8*: ask students to close their eyes, breathe in through their nose to the count of four, hold the breath for a count of seven, then exhale through their mouth to the count of eight. This can work very well with some calming music playing as they breathe.

The 90-second rule

According to Dr. Jill Bolte Taylor (2000), Harvard brain scientist, when we have a strong emotional response, it takes only ninety seconds for the stress chemicals produced by this response to be flushed out of our systems. To help students learn how to use the ninety second rule, a number of educators (Foreman, 2019; Sprenger, 2020) developed the following strategies:

- *N.A.B.B* is a strategy developed by Foreman, a primary school teacher from Dublin. Each letter of this acronym stands for an action which children need to carry out. **N** – name the emotion; **A** – accept the strong emotion; **B** – breathe by keeping attention to the breath; **B** – body (connect to your body as you breathe and try to feel your breath going right down to your feet)
- *CBS* stands for count, breath and squeeze. This is a strategy created by Dr. Sprenger, an author and international educational consultant for social emotional learning, literacy, vocabulary and brain research. Counting helps the brain calm down and allows the students to focus on something other than the trigger. Breathing regulates the heart rate and chemicals that control respiration. Squeezing something – a stress ball,

stuffed animal, the hands – and releasing is great for lessening tension and releasing anger.

Tone of voice

Students are more likely to learn self-management and self-regulation if they experience a calm environment, and if the teacher's body language and tone of voice communicates to them that they are safe and cared for. In a video "Demonstrating Self-Regulation with Tone of Voice," Linda Darling-Hammond (2019) emphasizes that "developing a calm, neutral, assertive voice" helps both teachers and students self-regulate, and assure students that the teacher is receptive to their needs. Dr. Sprenger (2020) suggests a helpful website (www.pbisworld.com/tier-1/use-calm-neural-tone/) to guide the teachers on the process of acquiring a calm, neutral tone and why, when and how to use it.

Calm down stations

Classrooms calming stations should be safe places where students can go calm down for a short amount of time using pre-taught strategies. These places or locations may include a couch, bean bag chairs, soft rugs, or even a bathtub with pillows, as well as some stress balls, playdough (kinetic sand) or pinwheels to helps students with breath regulation and stress relief. Other ideas for calming could be sensory bottles filled with a combination of water, glitter, food coloring and glue, or sand timers. As the students shake the bottle and watch the glitter settle, teachers can tell students that just as the glitter settles, so does their anger (or any other emotion) as well. Highschoolers and older children can benefit from strategies such as "talk it out" or "walk it out." Frey, Fisher and Smith (2019) suggest the TLC strategy - placing a table and chair in the hallway with a sign reading "How can I help?" and staff

member sitting at the table for anyone who would like to take a seat and dialogue or regroup.

CLASSROOM STRATEGIES TO TEACH SELF-DISCIPLINE

Self-discipline is the ability to do what you should do, when you should do it, regardless of the circumstances. The self-discipline child will complete or stay on task even when no one is watching, and will follow directions and turn in assignments on time not because they expect a reward or want to avoid consequences, but because they know it is the right thing to do. Sprenger (2020) suggests two strategies to effectively teach students self-discipline:

Party-planning experience

One way to help students plan ahead is to give them the opportunity to plan a party. In the process they will have to figure out what they need, how much it costs, what guests to invited and how to invite them. This can give students the necessary skills to move on to the next level of planning for a test or project. Also, you can role model to them how planning ahead helps them as a classroom get things done.

Brain break

Children's attention span is about two to three minutes per year of age, and there are four types of attention. Sprenger (2020) suggests that for most students focused attention is somewhere between five and ten minutes. After this time, students may feel the need to move around or they will lose focus and disengage from learning. This is the reason why children need breaks periodically and some novelty in order to change the predictable routine and refocus. Students lose focus when things become too predictable, but are able to refocus when they are exposed to novelty as the brain releases a number of

hormones and the reticular system gets activated. According to Sprenger (2020), the following could be used as examples of brain breaks:

- *Singing or dancing*
- *Content related movement* (e. g., "Stand up and talk to three classmates about something related to the Civil War;" "draw waves with your hands while repeating vocabulary words;" doing a four-corner quiz by placing quiz questions in different corners of the classroom and having students go around to answer the quiz
- *Movement for fun* (e. g., Have students walk around the room and touch three blue round shaped objects and three yellow square shaped objects before they sit down; doing a jumping jack when students know the answer to a question; "snowball fights" with crumbled paper; squats)
- *Balance the book* (e. g., Have students walk around the room balancing a book on their head).

CLASSROOM STRATEGIES TO TEACH SOCIAL AWARENESS

Social awareness refers to the ability to show empathy and understand other individuals' perspective. Teachers should teach their students to recognize their own emotions and respect other people's emotions and perspectives, and understand the social and ethical norms that guide different contexts. Educators should also create opportunities for their students to learn how to listen, handle disagreements, engage in critical thinking, and how to learn from their mistakes. Students with strong social awareness skills are more likely to empathize with others' perspectives and use constructive communication to solve conflicts, and less likely to engage in disruption classroom behavior. The following are some specific strategies for helping students develop social awareness:

The hats we wear, the roles we play

A teacher could do the following exercise to teach students about the many roles we play. She could wear several hats on her head as she enters the room, or she could place different name tags on her about her different roles (teacher, mother, wife, sister, daughter, friend, etc.). Then she should allow students to ask questions and write their own labels to illustrate the roles they have. This is a great opportunity to raise social awareness and provide opportunities for students to learn from one another, and to become aware of who they are, their multiple roles and the implications of those roles in different contexts (e. g., "Mark is Ana's brother and Matthew's friend, but right now he needs to wear the student hat and behave accordingly").

Watching facial expressions and body language

Sprenger (2020) emphasizes that helping students recognize and distinguish different facial expressions and their meaning could be a great way to increase their social awareness. This could be done either in real life or through media, and the discussions could be incorporated in any content area, as follows

- In history: What were Napoleon's facial expressions at Waterloo?
- In science: How did Willis Carrier look when he realized he had invented the air conditioner? How do you look when you enter into an air-conditioned room after being outside on a hot summer day?
- In language arts: How did Wilbur look when Charlotte died in *Charlotte's Web*? How did you look when you read about it? What were Sophie's facial expressions when she had to make a choice in the book *Sophie's Choice*?
- In math: How do you look when you have finished a problem and are done with your math homework?

What is your facial expression when you know you worked the problem correctly?

Journaling

Teachers should encourage students to write in their journals, things such as: what they can do to help others feel more included or like they belong; or how can they tell when one of their friends is sad or having a bad day, and what can they do to help them feel better; why is important for them to be in tune with other people's thoughts and feelings?

Social media awareness

Our students are very active on social media these days and a significant part of their communication occurs online. Students need to be aware of social media norms and how easily misunderstood and misinterpreted could be "faceless messages" that lack facial expression, tone of voice and body language. Students also need to be warned of the dangers of exposing others online either through senseless messages or videos, or sharing such messages and contributing to others' embarrassment and emotional hurt. This could cause shame and guilt, anger, and dysregulation as it last in the cyberspace for the rest of a student's life (Sprenger, 2020).

Listening to understand and show respect

Teachers could help students enhance their listening skills and respect to others through practice on how to use appropriate eye contact and facial expressions, how to regulate thoughts in order to limit distractions, and how to provide appropriate oral responses. A number of questions could be used to help students connect social awareness and listening skills. Some examples are: "Did I ask appropriate, respectful and relevant questions?"; "Did my tone of voice and body language

appropriately convey how I was feeling?"; "Did I respond respectfully and appropriately to some else's feelings?"

Think, pair, share

This is a well-known strategy used in cooperative learning that could be used successfully in teaching social awareness. According to Sprenger (2020), the following prompts could be used when starting conversations that include social emotional learning strategies:

- *Think*: Before initiating a conversation, be aware of you own feelings on the topic and the feelings of your conversation partner.
- *Pair*: If your discussion partner has a different view on the content of the topic, be respectful of your differences.
- *Share*: Share conversation time fairly by getting equal time to share.

CLASSROOM STRATEGIES FOR TEACHING RELATIONSHIP SKILLS

Developing relationship skills could be a very complex process. According to CASEL (2015), establishing and maintaining healthy relationships with others from different social and cultural backgrounds, requires clear communication, good listening skills, cooperative skills, ability to negotiate conflict and resist inappropriate social pressure, and capacity to evaluate when to seek and offer help as needed. Students would be more likely to handle relationships in a healthy way if they have already developed the first three SEL competencies – self-awareness, self-management and social awareness. Classroom activities that teachers can use to develop and enhance student relationship skills include:

Groupwork and cooperative learning activities

Cooperative learning is valuable in its own right, but it is especially valuable when teaching social and emotional skills. Regular group activities foster a sense of community in the classroom through connectedness among students, relationship building, cooperation and negotiation. They also provide students with opportunities to practice social and emotional competencies as they learn to support and challenge each other, articulate ideas, explain and clarify concepts to one another, solve problems and use metacognition as they reflect on their own thoughts and remain open to their peers' ideas.

One cooperative learning strategy that specifically aids in facilitating relationship building, is called *Jigsaw*. This strategy was created by Eliot Aronson (1978) and his students in the seventies in Austin, Texas, during a time of great tension between the white, Hispanic and African American students due to desegregation. This strategy gives each member of the group an important role to play and encourages listening, engagement and empathy. To implement the jigsaw in the classroom, follow the steps on Dr. Aronson's website at http://www.jigsaw.org/ or on page 190 of Dr. Sprenger's (2020) book *Social-Emotional Learning and the Brain: Strategies to Help Your Students Thrive*.

Another strategy that fosters cooperative learning and relationships is called *Project-Based Learning* (PBL), used to help students enhance listening, organizational, and conflict resolution skills while learning new concepts at a deeper level. If conflict arises, students have to use emotional management skills and find ways to work together to solve the issue. The role of the teacher is to monitor and supervise the process, and intervene only if necessary (Sprenger, 2020).

As relationship skills are enhanced by effective communication, students could be asked to write in their journals after a cooperative learning project, a jigsaw or a problem-based

learning activity, and reflect on whether the group reached its goals and how the student felt about their participation and engagement in the group project.

Roleplaying activities

Roleplaying is a great way to teach students communication skills and respectful interaction with others, as well emotional intelligence and empathy. Asking them to act out the lives of others and walk a mile in someone else's shoes is an effective way to help students learn how to empathize, solve conflicts and control impulses, and also how to see things from different perspectives. Integrating roleplaying into the academic curriculum could be done through debating and taking roles in supporting an argument. Roleplaying can be also used in content areas by having students do a project on a historical or science figure and writing about the person's life, not just how they became famous. Integrating SEL into specific subjects could be done through card games in math lessons or a discussion between x and y, or by incorporating SEL vocabulary into creative writing exercises, or by role playing an interaction between soldiers from different camps during the Civil War. Role-playing is considered to be an effective way to foster connection among students, teach them conflict resolution, and empathy by putting themselves in someone else's shoes.

CLASSROOM STRATEGIES FOR TEACHING RESPONSIBLE DECISION-MAKING

Decision making is an important part of our lives and is based on our time, values and priorities. According to CASEL (2015), responsible decision-making is "the ability to make constructive choices about personal behavior and social interactions based on ethical standards, safety concerns, and social norms". Responsible decision making teaches students how to identify and solve problems, analyze situations, evaluate

choices and consequences for themselves and others, and reflect on the outcome. The following strategies could be useful in fostering responsible decision making among students:

Give choice through classroom jobs

Teachers can create a "choice board" listing classroom jobs with a short description. These jobs could include passing and collecting papers, answering phones, reporting, etc. These may seem simple jobs, but they can teach students about shared responsibility, self-management, respect and decision making while they choose what jobs they like most, whether to fulfill their responsibility from the front of the class to the back or vice versa, or how to prioritize their jobs based on importance or preference (Sprenger, 2020).

Debates

A great way to develop decision-making skills in the classroom is through debate. There are different types of debates to take into consideration, as suggested by Sprenger (2020):

The Four Corners strategy is very effective in teaching students effective listening skills, respectful cooperation and decision making. After deciding on a topic, different options of that topic are assigned to each corner of the room. Students then choose to go to the corner that best suits their personal opinion. Each corner is given five minutes to discuss their position, and then each team gets a chance to present their arguments.

SPAR Debates stand for spontaneous argumentation debates based on minimal research. Students are given a topic such as, "Lying is sometimes justified," "School uniforms should be required," or "Books are better than television." Students are required to work in groups for a few minutes to prepare their arguments, with half of the group to support one position and the other half to support the other position.

Students will be "sparring" with the students sitting across from them and will be given time to make their case. At the end, take time to debrief and discuss with the students what was the most difficult part for them and what they learned from the process.

Magic 8-ball

This problem-solving strategy has been developed by the Ecological Approaches of Social Emotional Learning Laboratory (EASEL) at Harvard University to help teachers integrate SEL in their classrooms. As part of the activity, the teacher gives students a discussion topic or a question such as, "If a person does X [e. g., Cross the street without watching], what might happen?" Students would then look inside the imaginary Magic 8-balls and brainstorm ideas regarding the potential consequences of the action and responses in other situations. The teacher would then follow up and check with the students whether they saw the consequences discussed as positive, negative or neutral, and in which other situations they might need to imagine an outcome (Sprenger, 2020).

SOCIAL EMOTIONAL LEARNING BENEFITS FOR TEACHERS

Social and emotional skills benefit not only the students in an academic setting, but the teachers as well. Teaches who have an understanding of the social emotional competencies and incorporate them into the classroom, create better positive relationships into the classroom and enhance self-control and empathy. These teachers experience less burnout and are better equipped to deal with challenging behaviors in the classroom. Also, being able to show empathy improves their sense of wellbeing not only in their professional area, but also in their personal lives (Mercer et al., 2018).

The following suggestions of how SEL can benefit teachers are based on Dr. Shivohn N. Garcia's (n.d.) recommendations. Dr. Garcia (n.d.) is an experienced educator and the senior director of the Impact team at Understood, a non-profit organization providing resources to educators and supporting people who learn and think differently. She emphasizes that SEL benefits not just students, but educators as well, as they both need to "feel valued and safe". Her suggestions are based on the CASEL's five core competencies, and stresses that it is important for teachers to develop their own social and self-awareness, self-management, relationship and decision-making skills, and make their classes a safe place where students know that they are valued and are able to manage their emotions and set positive goals even beyond the classroom.

Self-awareness competency for teachers

Practicing self-awareness can help teachers recognize and understand their emotions, strengths and challenges, have an accurate self-perception and self-confidence, and practice a growth mindset. For example, if you, as a teacher become upset about a student's behavior, it is suggested that you pause and ask yourself, "Why am I feeling so angry?" Certain behaviors in the classroom might trigger an emotion in us, bring back memories, and cause us to feel or act in a certain way. Being aware of our emotions and being able to identify and understand our feelings before we decide how to respond to the student is very important. Dr. Garcia (n.d.) suggests the following practical ways for teachers to practice self-awareness:

- Acknowledge your own emotions and be aware how they may influence your reactions.
- Name the skills you are using for "think aloud" for your students as you model them.

- Consider students as partners in the process of developing social-emotional skills.
- Understand that students may learn social-emotional skills at different rates and some may take longer than others.

Self-management competency for teachers

The concept of self-management refers to the ability to manage and regulate your emotions, thoughts and behaviors in different situations, and includes skills such as: impulse control, stress management, motivation, setting and achieving goals, and executive functioning skills (e. g., planning and organization). It is well known that teaching is a highly demanding job and teachers have to constantly use self-management skills to meet the daily demands. The following are some ways to practice self-management in the classroom setting (Garcia, n.d.):

- Recognize that students who think and learn differently have different needs that may not have been met in the past by the school system because the curriculum was not flexible enough for their learning and thinking differences.
- Understand that when students are disengaged, they may have experienced inner conflict with school values that may not be historically and culturally diverse enough and representative for themselves.
- Model your own self-management skills to the students and explain "why" you are doing what you are doing.
- Use goal-setting in the classroom and encourage students to set short and long-term life goals.

Social awareness competency for teachers

The ability to show empathy, respect diversity, and appreciate other people's views and perspectives is known social-

awareness. The development of social awareness is vital for teaching and the classroom environment. Building and maintaining healthy relationships with students and parents requires a healthy dose of empathy and respect for all cultures, values and perspectives, as well as differences. Dr. Garcia (n.d.) suggests a few ideas for teachers to how they can practice social awareness in the classroom:

- Get to know the students and their families, and personalize your lessons based on their specific needs.
- Build a classroom community that values all students and is focused on the collective good.
- Make the classroom a safe space for all students and create opportunities for them to talk about and be open to other perspectives that can change your point of view.
- Make the students active participants in the learning process and ask for their feelings and perceptions on the classroom environment.

Decision-making competency for teachers

Responsible decision-making refers to be ability to understand how you and others are impacted by what you do, how you analyze and solve problems, evaluate and reflect on your actions and how you take responsibility for your decisions and their outcomes. Decision-making is an important part of teaching and teacher-student interactions. Teachers have to make decisions every day about time and classroom management, instruction, lesson planning and design, social interactions and self-care. At the same time, teachers play an important role in supporting students make decisions about their learning, behavior, or even their future, as some students may be the first in their families to go to college. Dr. Garcia (n.d.) suggests different ways to practice responsible decision-making in the classroom:

- Understand that teachers need to support their students in learning how to become responsible decision-makers in developmentally appropriate ways.
- Share with your students how you make decisions and help them understand the "why" behind them. At the same time, acknowledge that their process might be different from your own.
- Provide students with examples and help them identify role models who have had similar experiences as your students.

Relationship competency for teachers

Relationship skills refer to the ability to build healthy relationships with others, connect, communicate and listen effectively, resist peer pressure, negotiate and resolve conflict, and receive and provide help as needed. Dr. Garcia (n. d.) suggests that even though human beings are wired for connection and community, relationship skills are not innate, they need to be developed. Engaging with others in meaningful ways and trusting them, requires other social-emotional competencies such as self-awareness and self-management. Developing trusting relationships in the classroom setting might be sometimes challenging as students may struggle at times with expressing themselves. This is the reason why Dr. Garcia suggests that teachers need to model social-emotional skills to their students and partner with them in the process of building their own emotional vocabulary and relationship skills. She gives some practical ideas to practice relationship skills in the classroom setting:

- Before responding to any behavioral issues, search for the "why" behind a student's behavior.
- Point out inappropriate behaviors and provide appropriate alternative ways to respond.

- Acknowledge that these skills may be difficult to practice at times and reassure your students of your support in the process.
- Guide students how to practice problem-solving and avoid conflict by using role-playing and putting themselves into other people's shoes.
- Encourage students and provide them with ways to reflect on their own thinking, behaviors, and relationships.
- Model active listening to your students as you give them feedback.
- Plan classroom activities to teach your students how to build trust and a sense of belonging.

CONCLUSION

Social Emotional Learning has many benefits for both students and teachers. Research shows that social and emotional factors play an important role in the teaching and learning process, and schools must be active agents in fostering students' social emotional skills. Learning is a social process and students learn better in collaboration with their teachers and in partnership with their peers. Cognition alone is not enough for success in the classroom. Emotions and learning are inseparable, and they can either facilitate or hinder students' learning.

Educators can benefit tremendously from implementing SEL into their classrooms based on CASEL's competencies. SEL improves academic achievement and students' attitudes, motivation, impulse control, and commitment to schoolwork, increases appropriate social behavior, and reduces depression and stress. Teachers with SEL skills are better able to manage their classrooms and foster a healthy learning environment. Furthermore, teachers who incorporate SEL into the classroom experience higher satisfaction with their work, improved

sense of well-being, and higher emotional intelligence as they model the behavior they are teaching to their students.

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APPENDICES

Figure 1
Social and emotional learning competencies



Note: From "How Project-Based Learning Can Promote Social-Emotional Learning Skills" by Teach Thought Staff. Copyright 2023 by TeachThought. https://www.teachthought.com/project-based-learning/teaching-social-emotional-learning-skills/

Table 1
Example of an emotion word wall

FEAR	JOY	SADNESS	ANGER	HAPPY
Afraid	Blissful	Anguished	Agitated	Bright
Alarmed	Calm	Dejected	Annoyed	Content
Anxious	Cheerful	Depressed	Appalled	Cheerful
Apprehensive	Content	Despondent	Cranky	Chirpy
Baffled	Delighted	Down	Critical	Delighted
Cautious	Ecstatic	Downcast	Cross	Glad
Confused	Elated	Drained	Defensive	Joyful
Distressed	Encouraged	Gloomy	Disgusted	Merry
Distrustful	Enthralled	Heartbroken	Enraged	Optimistic
Embarrassed	Excited	Melancholy	Exasperated	Overjoyed
Frightened	Friendly	Miserable	Frustrated	Pleased
Hesitant	Happy	Mournful	Furious	Positive
Horrified	Hopeful	Pessimistic	Hateful	Upbeat
Nervous	Joyful	Unhappy	Horrified	
Paralyzed	Jubilant	Weepy	Hostile	
Panicked	Lively		Irritated	
Petrified	Peaceful		Mad	
Scared	Satisfied		Offended	
Terrified	Smiling		Resentful	
Worried	Thrilled		Riled up	
			Upset	
			Vengeful	

Note: Adapted from "Social Emotional Learning and the Brain: Strategies to Help Your Students Thrive" by M. Sprenger, 2020

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THE CURRICULUM IN A CHRISTIAN SCHOOL: WHAT MAKES IT CHRIST-CENTERED

Ebenezer Danquah[1]

Abstract
The demand for Christ-like character that transforms society has made Christian education more relevant in the 21st century. Moral decadence is rife, giving rise to the call for religion in the curriculum (Donovan, 2017). A Christ-centered curriculum is inevitable if students are to develop faith and the character of Christ through the integration of content and pedagogy. However, there is little information available concerning what makes the curriculum Christ-centered (Dernlan, 2013). The purpose of the study was to explore what makes the curriculum Christ-centered in a Christian School. The developmental faith theory by Fowler (1981) and corroborated by Love and Talbolt (2000). It states that students are influenced by the academic environment where the curriculum serves as a pillar to the foundation of faith. This case study used data gathered through in-depth interviews, focus group discussions, observation, and document analysis. The study was conducted at an international Christian high school in Southeast Asia. A total of 13 individual participants and 2 groups participated in this study. The data analysis was done by identifying patterns and themes, noting links and differences to the forming of concepts explaining the case study. The findings indicated that a curriculum based on Christ makes it Christ-centered. The character of the curriculum designers is molded by Christ who has a vision of building good student character. Christ-centered curriculum content has a connection with Christ and is founded on faith. Teachers who teach such a curriculum must show good character and help high school students to develop faith.

Keywords
Curriculum, Christ-centered, Christian school, Case study, High school students, Integrating content and pedagogy, Faith

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INTRODUCTION

One of the main aims of teaching is to boost the understanding and learning of students. Integrating the content and pedagogy of a Christ-centered curriculum in the classroom can help students learn, understand the biblical worldview, and develop faith in Christ (Manning, 2012; Smith, 2018). A Christ-centered curriculum is based on a biblical worldview of Christ (Scifo, 2018). The biblical worldview of Christ means that the contents of the whole curriculum should be based on and explained using the Bible (Flynt, Flor, & Overstreet, 2017; Garcia-Huidobro, 2017; Scifo, 2018). A Christ-centered curriculum is, therefore, made up of a series of materials based on a biblical worldview of Christ, required for a Christian school to lay the foundation of learning (Boeve, 2012; Harris, 2004; Scifo, 2018).

There is a general call for society to revert to values that lead to the development of civic virtues such as faithfulness and service for the good of society and care for others (Barb, 2017; Hartley, 2004; Kaźmierczak, 2017). The call is epitomized in a statement by Donovan (2017) who remarked, "Indeed, the court itself has suggested that there might be room for religion in the curriculum" (p. 210). He was discussing how religion could be re-introduced in the curriculum of public schools after it was outlawed some years back in the United States by the courts. Private Christian institutions have religion in their curriculum and can lead the call to Christlikeness. but there is still a need for Christian schools to strengthen their role in helping students in their faith development (Hartley, 2004). A well-thought-out plan of Christian education can work better through a Christ-centered curriculum (Hoffman, 2018).

Many Christian schools have a well-thought-out mission statement, but an impeccable mission statement alone cannot develop faith in students (Fuller & Johnson, 2014). Christian

schools must engage in thorough planning of their curriculum and pedagogy to reach their goals. Anything less than that is putting into jeopardy the aim of establishing the school (Dernlan, 2013). The problem is that a Christ-centered curriculum has not been well-defined in many Christian institutions leading to its misapplication in such institutions. There is also little information available concerning what makes the curriculum Christ-centered (Dernlan, 2013). This has led to the use of any curriculum in many Christian institutions, whether Christ-centered or not. The purpose of the study is to explore what actually makes the curriculum Christ-centered in a Christian School.

High school students, in their adolescence age, are more inclined to build their faith as depicted by the developmental faith theory by Fowler (1981) and corroborated by Love and Talbolt (2000). During the adolescence stage, most high school students are greatly influenced by the academic environment where the teacher plays a vital role as a spiritual guide and the curriculum as a pillar to the foundation of faith (Banez, 2016; Christie & Christian, 2012). Fowler (1981) proposed that faith development evolves in stages in the lives of humans. Stage three of Fowler's (1981) theory states that personal belief, identity, and faith development, are influenced by relationships formed with either peers or teachers who are outside the family. This makes a Christ-centered curriculum a pillar in Christian education.

REVIEW OF LITERATURE

An important part of research is reviewing related literature to the current study. This gives a supportive base and builds on existing knowledge. This section deals with the literature related to this study.

What makes a curriculum Christ-centered

Curriculum can be described in many ways. English (2010) describes the curriculum as "the content of schooling in all its forms" (p. 4). The Curriculum is the total learning opportunities and student experiences that happen in an educational environment (Hall & Smyth, 2016; Hollingsworth, 2017). It is the lessons of academic content espoused in an educational institution or in a particular course or program (Beck, 2018). Whiles Young (2013) says curriculum gives knowledge, brings about development, and gives meaning and hope to humanity, Pinar (2011) sees curriculum differently and describes it as what can be recollected in the past, what the present holds, and what the future will be for humans. Curriculum can be said to be a plan for learning in schools or all other activities in a school where students learn. A curriculum serves as a source of knowledge obtained from, and about the past, so that future generations can develop the knowledge gained and improve upon it (Maudlin, 2014; Young, 2013).

The Curriculum is very important for the running of any academic institution. It determines the success or otherwise of students in their learning. Through the curriculum, students are able to cultivate knowledge that makes them useful to their communities, thereby achieving the goal of education. In view of this, a curriculum must have a series of materials with good guidelines as teaching aids (Barn & Mahdany, 2017; Beck, 2018; Guzman, 2015; Maudlin, 2014; Pinar, 2011; Young, 2013). For such a curriculum to become Christ-centered, it must be based on a biblical worldview of Christ. The biblical worldview of Christ means that the contents of the whole curriculum should be based on, and explained using the teachings of the Bible about Christ (Flynt et al., 2017; Garcia-Huidobro, 2017; Scifo, 2018). Schultz and Swezey (2013) on the other hand describe a Christ-centered curriculum as measured "by a lifestyle of character, leadership, service, stewardship, and

worship" (p. 228). In their view, a Christ-centered curriculum affects every aspect of a student's life and can help them to develop faith.

Van der Walt (2012) gives a different meaning of what constitutes a Christ-centered curriculum. He says that a Christ-centered curriculum is a stewardship. According to him, a stewardship Christ-centered curriculum should teach students to care for their neighbors instead of focusing on the academic score they will receive in school. Van der Walt (2012) is of the opinion that the greatest achievement of student learning is acquiring knowledge to live a life of value centered on finding their purpose, to which they have been called to lead.

According to Knight (2016), a Christ-centered curriculum goes beyond just having a religion class separately from other classes. A Christ-centered curriculum requires that all subjects should be taught in the light of an existing God who has revealed Himself to humans through Jesus Christ. Christ is integrated into every aspect of the school curriculum, presenting Him as the center of all knowledge. Christ must permeate the entirety of the curricula (Boeve, 2012; Flynt et al., 2017; Garcia-Huidobro, 2017). Finally, when a curriculum is made Christ-centered, it ultimately encourages students to build a relationship with God that prepares them for service to humans on this earth and in the future world expected to be established by Christ (White, 1952).

Different descriptions by various authors on what makes a curriculum Christ-centered have been espoused, but the idea of White (1948) in *Proper Education* aligns with this study on what a Christ-centered curriculum means. She explained that the curriculum should be centered on Christ. When the curriculum is based on Christ, students will be balanced in their training of head, heart, and hand (Anderson, 1975; Greenleaf, 2005; White, 1948). The purpose of education will then be fulfilled as students defend the teachings of the Bible about Christ.

Christ-centered curriculum and integration of faith and learning

A Christ-centered curriculum and integration of faith and learning are all geared towards impacting learners in their worldview of faith (Beardsley-Hardy, 2017; Daniels & Gustafson, 2016; Knight, 2017; White, 1952). The end product of the two seeks to transform the lives of students and draw them closer to Christ (Daniels & Gustafson, 2016; Guptill, 2004; Larson & Larson, 1992; Wilkerson, 2015). A Christ-centered curriculum and integration of faith and learning are important and needed in the classroom to aid teachers in positively impacting the faith of students (Schultz & Swezey, 2013).

Christ-centered curriculum

As already stated, What Makes a Curriculum Christ-centered; the curriculum must have series of materials with good guidelines as a teaching aid (Barn & Mahdany, 2017; Beck, 2018; Guzman, 2015; Maudlin, 2014; Pinar, 2011; Young, 2013). The materials must be based on a biblical worldview of Christ. The contents of the materials that form the curriculum should be based on and explained using the teachings of the Bible (Flynt et al., 2017; Garcia-Huidobro, 2017). A Christ-centered curriculum is, therefore, made up of a series of materials based on a biblical worldview of Christ, required for a Christian school to lay the foundation of learning (Boeve, 2012; Harris, 2004; Scifo, 2018). The learning is expected to result in faith development in students in the school (Schultz & Swezey, 2013). As students develop in faith, they are prepared and enabled to experience the Christian faith and develop the character of Christ (Semenye, 2013).

Integration of faith and learning

The term Integration of Faith and Learning (IFL) has been widely used by Protestants and Catholics to describe Christian

education (Beck, 2008). The emergence of IFL was in response to the lack of biblical truth in the curriculum of Christian schools in the United States, after the Second World War (Badley, 1994; Beck, 2008; Clark, Johnson, & Sloat, 1991). IFL was meant to address the shortcoming in Christian education (Badley, 1994; Beck, 2008; Clark et al., 1991; Glanzer, 2008; Jacobsen, Jacobsen, & Sawatsky, 2004; Marsden, 1994; Ponyatovska, 2015; Ribera, 2012; Thomas, 2011). The term IFL was coined by Gaebelein (1968) to describe Christian education (Badley, 2009).

Various definitions of IFL and what it involves have been given by Christian educators from different groups of denominations (Akers & Moon, 1980; Gaebelein, 1968; Glanzer, 2008; Korniejczuk, 1994; Nwosu, 1999; Ribera, 2012). But IFL for this study is based on Rasi's (2000) definition from the SDA perspective. He says that IFL is a "deliberate and systematic process of approaching the entire educational enterprises, both curricular and co-curricular from a biblical Christian perspective" (Rasi, 2000, p. 40). This definition makes it clear that IFL transcends classroom activities. The learning and training of students in all school activities are connected to Christ so that whatever contents are learned becomes an integral part of the student's life-long experience of faith. Faith and learning are naturally intertwined (Badley, 1994; White, 1952).

In making IFL practical, Taylor (2005) mentions four instructional strategies, which can be employed by teachers for effective learning of students. The first strategy is contextual, which has three methods, (a) tactical, (b) ornamental, and (c) environmental. Tactically, IFL takes place when the policy, philosophy, and academic programs of a Christian school are formulated biblically (Taylor, 2005). When school classrooms, bulletin boards, and pavements are all well decorated with biblical quotations and pictures, the ornamental strategies are fully utilized to portray Christ (Taylor, 2005).

Environmental strategies happen when the relationship between teachers and students is cordial, healthy, and peaceful. The peaceful atmosphere becomes conducive to faith development (Taylor, 2005; Wilkerson, 2015).

The second strategy listed by Taylor (2005) is illustrative, which involves (a) analogous, (b) narrative, and (c) exemplary. Analogous is when IFL practitioners use spiritual and professional linkage in their teaching just like Jesus who used parables when He taught. When biblical stories are told to relate to what is being studied inside or outside the classroom, the narrative strategy has been used (Roller, 2013). The exemplary strategy happens when the IFL teacher is a good model for the students just like Jesus was a model to His followers (Taylor, 2005; Wilkerson, 2015). The teacher's attitude and behavior are closely watched by students who tend to imitate him or her. The teacher's good example for the students can shape their lives for the future.

The conceptual strategy, which is the third on the list, has (a) textual, (b) thematic, and (c) valuative strategies. The textual strategy involves using Bible passages to illustrate an important point in the contents being taught. The thematic strategy is when students can critically think and form worldviews that are Christ-centered about the subject being discussed (Roller, 2013; Taylor; 2005). In the valuative strategy, topics that are controversial, such as abortion or euthanasia could be researched by students from different angles, and the reason behind each angle is discussed in terms of biblical principles. Their ethical reasoning will help them to develop a biblical position (Taylor, 2005).

The last strategy, which is experiential includes (a) personal, (b) inter-relational, and (c) declarative. When students are encouraged to have a personal relationship with God through chapel services, counseling sessions, and personal time with God, a personal strategy has been employed (Roller, 2013; Taylor, 2005; Wilkerson, 2015). Through inter-

relationships with others, students can collaborate in their learning to become effective. Finally, the declarative strategy happens when students can witness to others what they have been able to learn in school. When students are convinced about a subject discussed, they become excited to share their new knowledge with others (Wilkerson, 2015).

Summary of Christ-centered curriculum and integration of faith and learning

Given what has been discussed in this section concerning Christ-centered curriculum and IFL, it is explicit that both are the same. A Christ-centered curriculum is made up of a series of materials based on Christ, required for a Christian school to lay the foundation of learning (Scifo, 2018). On the other hand, IFL builds on the foundation established in the Christ-centered curriculum to include instructional strategies needed to impart knowledge in curricular and co-curricular activities from a biblical point of view (Rasi, 2000).

METHODOLOGY

A well-planned methodology ensures that an organized approach is followed in the course of conducting a study since specific content is outlined by the researcher (Wa-Mbaleka, 2018). The content outlined for this study includes the following components: (a) research design, (b) research context, (c) sample and sampling procedure, (d) description of the participants, (e) data collection methods, (f) data collection procedures, (g) data analysis, (h) trustworthiness, and (i) ethical considerations. The aim of this study is to explore what makes a curriculum a Christ-centered one.

The methodology that was used for this study was qualitative. Qualitative research today presents researchers with an alternative to the traditional form of research, which is quantitative (Creswell, 2008). The design for this study was a case

study. Case study research is the study of cases within a real-life bounded system over time through comprehensive data collection using different sources of information (Creswell, 2013).

Research context

This study was done at a high school in Southeast Asia. The study explored what makes the curriculum Christ-centered. Given the ethical considerations behind this study, the high school was not mentioned. The boundary of this case study was an international Christian high school.

Sample and sampling procedure

The main participants of this study were made up of 4 renowned educators who are curriculum specialists and have been using a Christ-centered curriculum for many years in teaching and mentoring teachers. They were interviewed about their experiences in developing a Christ-centered curriculum.

Similarly, 4 teachers from the selected high school who have been trained and using Christ-centered curriculum and have the knowledge of the content of an academic subject including the skill to teach to the understanding of students, were interviewed and observed during teaching for a month. The selected teachers, with at least a first degree in education, were all Christians dedicated to the training of adolescents to know Christ. To ensure that what they do enhances faith formation or otherwise, 4 high school students from Grades 11 and 12 were interviewed and 2 focus group discussions, made up of 6 high school students in each group of the selected high school teachers were also conducted. The teachers and students used in this study come from the same high school. Their school is established and managed by the educational institution where all the mentors work. Finally, the curriculum administrator of

the selected high school was interviewed to ascertain how a Christ-centered curriculum is put together.

Purposive sampling was used to select participants from the different categories. Purposeful sampling in case study research helps the researcher to select and learn from the most promising participants on the phenomenon under study. This is because they have knowledge of the phenomenon and could answer questions satisfactorily (Merriam, 2009). For this purpose, the criteria for selecting mentors as participants of this study was by their experience of using a Christ-centered curriculum and mentoring teachers for 10 years or more. In addition, teachers who had 5 years of teaching experience and students in Grades 11 and 12 were selected to take part in this study.

Data collection methods

Data collection methods in qualitative case studies are multiple. The data collection methods include interviews, observation, document and record analysis, and physical artifacts (Creswell, 2013). To test the acceptability of the interview protocol and guide, a pilot test was conducted with three participants who were not part of this study but with interest in a Christ-centered curriculum. The pilot test helped me know where to probe for more clarification during the interview with participants of this study.

Trustworthiness

Trustworthiness indicates how a researcher is able to convince readers that the findings of the study are credible. Trustworthiness, therefore, deals with the validity and reliability of the research undertaken to prove to the reader that the data analyzed has credibility (Lincoln & Guba, 2000). The study underwent five attributes of credibility, transferability,

dependability, consistency, and confirmability to ensure its trustworthiness.

Data analysis

Qualitative case study research gathers a large amount of raw data. It is, therefore, important to keep the data in a planned and timely manner. Creswell (2013) maintains that doing a case study analysis comprises giving a comprehensive description of the case and its setting. He emphasized that if the description follows a pattern of events, the multiple data sources can be analyzed to show how the case developed. All the data were coded, and preliminary meaning was generated. The data analysis was done by identifying patterns and themes, noting links and differences to the forming of concepts explaining the case study (Stake, 2010).

RESULTS

A Christ-centered curriculum, as the name depicts, must have Christ at its center. The participants of this study, however, expressed diverse views on — *what makes curriculum Christ-centered*. In their responses, they explained that a Christ-centered curriculum is about the Bible, Christ, the teacher's character, and faith. The theme that emerged was *Christ in all spheres*.

The theme emanating from the data was Christ in all spheres. The participants were of the view that aside from the curriculum, every possible avenue should be centered on Christ so that the development of faith in high school students could become possible. This theme is supported by the theory of the theological-psychological approach (Loder, 1998). The theory states that adolescents develop faith and their identity at that level of age; hence, a curriculum with Christ at its center will help high school students who are mostly adolescents to establish a good spiritual foundation. To buttress the point

that Christ should be showcased in all spheres, participants said a Christ-centered curriculum is made possible through, (a) Christ as the center of the curriculum, (b) character building, (c) character of the curriculum designer, (d) connection of the curriculum content with Christ, (e) foundation of faith, and (f) teacher's character. The above categories according to participants ensure that Christ permeates every aspect of the class.

Christ as the center of the curriculum

Referencing Christ plays an important role in a Christ-centered curriculum. Biblical references to Christ are needed if the curriculum is to be centered on Christ (Vanden, 2016). This fact was emphasized by Mentor 1. According to Mentor 1, Christ being at the center of the curriculum ensures that a teacher incorporates Christ in all avenues in class.

> Biblical relationships in the content, the way it points Christ throughout is a very deliberate way of including integration in the written work, in the course outline, the objectives, the lesson plans, if it's an online class throughout the lecture that you write, throughout the places that you can incorporate biblical ideas of Christ and belief systems into the written curriculum. (Folder 1, IDI-M1, p. 1)

On his part, the Curriculum Administrator stated that the goodness of Jesus should pervade every aspect of the curriculum including the whole school. When Jesus is magnified in all aspects of a school, there is Christ-centeredness (Gabriel, Woolford-Hunt, & Hooley, 2016).

> Jesus should pervade every aspect of the school. Jesus and His teachings are talked about and practiced in every classroom, in every lesson, in every aspect of the school, especially in the high school. (Folder 2, IDI-CA, p. 1)

To prove that a Christ-centered curriculum has Christ as its center, the curriculum administrator produced a science textbook, which had many Bible quotations referencing Christ.

The themes in the textbook were linked with Bible themes to provide a biblical explanation of the lessons in the textbook. A Bible quotation in the science textbook provided by the curriculum administrator to support lessons on creation read,

> The Bible says in Isa 43:1 that God has redeemed us and calls us by name. (Folder 5, DAG, CA, p.19, 1st para.)

Throughout the science textbook provided by the curriculum administrator, Bible text references were provided to explain the biblical worldview of the themes of the curriculum. Teacher 4 was emphatic on how the Bible was used in his class. He stated that biblical principles guided every lesson he taught in class because it will be of benefit to the students in the future.

> When I teach the class, I make sure that there is truly a biblical principle in every lesson I teach. If students should ask the question, why do I include some biblical principles in the Bible, even though I don't teach Bible subjects, I explain to them that what they learn is not temporary but it's for the future. (Folder 2, IDI-T4, p. 19)

In my observation notes on how Teacher 4 taught in class, I recorded that he was,

> Always making reference to the Bible and Christ, and instilling values in the lives of the students. (Folder 5, OG-T4, p. 18)

This statement buttressed the point Teacher 4 made, that when he teaches, he made sure that the principles of the Bible are included in his lessons (Manning, 2012). Confirming that biblical values were made part of their lessons in class, some student participants of this study mentioned that when a Christ-centered curriculum is being taught in class, they see it as God's character being reflected.

> Christian education is like an education that reflects God's character or the teaching of the Bible, an education that

> reflects God's character and teaching of Christ-like character. (Folder 3, IDI-FGD, S1, G12, p. 17)
>
> It sounds good and cool to see that someone is able to put together the Bible and what we have learned in class. (Folder 3, IDI-S1, G11, p.1)

Supporting the assertion that when the Bible is at the center of the curriculum with an emphasis on Christ, it becomes Christ-centered, Cafferky (2017) made it clear that "through its grand themes, the Bible presents a foundation for learning in all disciples" (p. 1). Gettys and Plemons (2017) emphasized that it is important for a Christian institution to have an established biblical worldview in all courses to introduce students to Christ.

Character building

A Christ-centered curriculum should be able to help build the character of students (Almerico, 2014). The participants intimated that character building is the purpose of a Christian institution and this is what makes the curriculum Christ-centered. The participants, stating the importance of character building through a Christ-centered curriculum, said that teaching students to be of the right behavior in and out of the classroom should not be neglected. Obtaining good grades is important, but helping students exhibit good behavior should be cherished by teachers.

> For me, it is when you are being taught more about your behavior instead of your performance in class such as grades. Mostly, it is about grades, but in a Christian environment, you will be taught more about on your behavior, how you behave, outside or inside school. (Folder 3, IDI-FGD, G12, S2, p. 17)

According to Mentor 1, instilling good morals in high school students is the prime purpose of Christian education. To her, Christian institutions should not exist if they fail to

achieve their prime purpose, which is instilling good morals in students.

> The main purpose of our classes is character building, content is just a tool, so if we are not looking at the prime purpose, which is instilling good morals in students, we are just doing what the world does and nothing more than that we don't need to exist as an institution. (Folder 1, IDI-M1, p.1)

In the science class of Teacher 2, the students did an experiment called Cup and String Telephone. After the experiment, the students were asked to write a reflection journal on what they learned in class by responding to the question, how will you connect the experiment with your relationship with Jesus? The journal of two students read,

> If you go closer to God, you will hear Him clearly, but if you go further away from Him, you will not hear Him. (Folder 5, DAG-T2, p. 9)

> The string is like a connection with God, if Satan holds the middle of the string, we will no longer be connected with God. We need to always pray to be connected with God. (Folder 5, DAG-T2, p. 9)

The values shared in the class indicated the building of character at that stage of student development. That made the curriculum Christ-centered. In describing the importance of character building in students, Almerico (2014) declared that "it is a deliberate effort to develop noble character and cultivate core virtues that are worthy for the individual and society as a whole" (p. 2). Character building is necessary for people to be responsible citizens, and also the foundation of people who are confident and reliable (Almerico, 2014; Cafferky). Character-building themes should be incorporated into the curriculum, not only in Christian institutions but in public schools as well (Cafferky, 2017).

The character of the curriculum designers

One of the intriguing categories that emerged was the character of the designer of the curriculum. Participants argued that a Christ-centered curriculum cannot materialize if the authors of the curriculum are not themselves in tune with Christ. The curriculum designers must be Christ-centered persons to be able to author a Christ-centered curriculum. Without the designers being Christ-centered persons, the impact of Christ will not be felt in the curriculum (Boeve, 2012). The participants expressed that curriculum designers must be biblically based and must put Christ above everything.

> The person cannot make a good Christ-centered curriculum. It will be something written on paper, which does not have value, so the values of the person, if not Christ-centered or biblically-based, then whatever he said is superficial and does have not much value. Therefore, for any Christ-centered curriculum, one must be a Christ-centered person, one who puts Christ above everything and one who has learned from the life of Jesus Christ. That person only can make a good Christ-Centered curriculum. The person preparing the curriculum must have Christian values. You cannot ask anybody to make a Christ-centered curriculum, it doesn't work without Christian values. (Folder 1, IDI-M2, p. 6)

Mentor 2 emphasized that Christian values in curriculum designers will reflect in their work.

> If there are truly Christian values in a person, they will automatically be translated because once you have those values internalized, and you have become a Christ-Centered person, that will show in all walks of your life. And so when you sit to make a curriculum, it will automatically be seen that it is there in the curriculum. (Folder 1, IDI-M2, p. 6)

The Curriculum Administrator also stressed the importance of the link between the designers of the curriculum and the curriculum itself. The designers must have a dynamic and close

relationship with God, which will have an impact on the curriculum. In this way, the curriculum could be referred to as a Christ-centered curriculum.

> A curriculum becomes Christ-centered when the creators have a dynamic and close relationship with Christ. (Folder 2, IDI-CA, p. 1)

Touching on the importance of being a Christ-centered person to be able to create a Christ-centered curriculum, Raveloharimisy (2017) was of the opinion that designers of a Christ-centered curriculum must themselves be Christians first. Designers of the curriculum must not only be a Christian in name but a Christian with a relationship with Christ. When Christ does not dwell in a human being, no one will see Christ in him. Christ is seen in the curriculum when He resides in its creators.

Connection of curriculum content with Christ

Some participants were of the view that connecting the curriculum to Christ makes it Christ-centered. When Christ is not connected to the curriculum, its essence is lost. All efforts should, therefore, be geared toward making Christ part of the curriculum by pointing to the teachings of Jesus (Knight, 2016).

> For my curriculum to be Christ-centered, it should always point to the teachings of Jesus. I don't talk about Jesus at the end, no, Jesus should be part of the discussion, he should be there. In my head, the picture should be there from the beginning because the essence of what was going to be discussed is not in the right place when we don't start with Christ. (Folder 2, IDI-T3, p. 15)

Teacher 2 stated that the presence of God is felt when teaching a Christ-centered curriculum and this encourages him to connect the curriculum to Christ.

> It is not difficult for me to connect my curriculum to a Christ-centered lesson because, I think every time you look at your lesson, every time you see your students, you will always see that God is good and He is there whenever we have classes. (Folder 2, IDI-T2, p. 11)

Relating how a teacher taught a Christ-centered curriculum in class, a student said the teacher would always make an effort to connect the lesson to Christ or the Bible.

> He tries to relate everything back to Christ or the Bible. (Folder 3, IDI-S3, G12, p. 6)

In my observation of Teacher 3 in his business communication class, he asked students at the end of the lesson to make connections of what they learned to Christ. He had earlier stated that he teaches by always pointing to Jesus. I noted the following,

> The teacher made connections with Christ at the end of the lesson. Students were asked to link what they learned to the values of Christ. (Folder 5, OG-T3, p. 13)

My observation statement above supported the teacher's statement that he always points to Christ in his class lessons. According to Knight (2016), a Christ-centered curriculum goes beyond just having a religion class separately from other classes. A Christ-centered curriculum requires that all subjects should be taught in the light of an existing God who has revealed Himself to humans through Jesus Christ, His Son. Christ is integrated into every aspect of the school curricula, presenting Him as the center of all knowledge.

Connecting the curriculum to Christ makes it Christ-centered. Christ is made the focus of what is being learned. The virtues He portrayed are learned and cherished by students. When a curriculum is connected to Christ, students are empowered to link their lives to what they learned from Christ (Jones et al., 2017).

Foundation of faith

Faith development in students is crucial at their adolescent age (Hartley, 2004). This is why some participants of this study reiterated that the curriculum should address faith at the high school level. The participants held the view that when matters of faith are addressed in the curriculum by pointing to the faith of Christ, it sets a good foundation to build faith. According to teacher 3, matters of faith can be addressed through object lessons.

> The student should feel in the lesson that there is something that is significant, so in my lesson, I put an object lesson pertaining to faith. (Folder 2, IDI-T3, p. 15)

The Curriculum Administrator inferred that strategies that promote faith and Christ should be explicitly or implicitly connected to the curriculum.

> As the curriculum is being crafted, the base or the foundation should be faith. Points in the curriculum that could be explicitly or implicitly connected to faith or faith lessons should be identified. Strategies that promote faith and Christ should be matched to these points. (Folder 2, IDI-CA, p. 1)

A student confirmed how a curriculum connected to faith builds a good foundation in Christ. According to the student, faith is developed when they are guided and encouraged to pray.

> It helps a lot in my faith because teachers, before the lesson always ask us to pray, or give advice on how God will help. (Folder 3, IDI-S3, G12, p. 6)

Discussing the importance of establishing faith in the curriculum, Taylor (2017) made it clear that it helps students to "develop faith in Him and His plan for their lives" (p. 5). Gettys and Plemons (2017) established that the foundation of faith in curriculum can potentially help students to come to terms with a biblical worldview of Christ. The faith- based

curriculum also helps students to be guided by the Bible as they make critical decisions in their lives.

Teacher's character

The teacher's character came up many times as participants of the study were convinced that teachers play an important role in the faith development of students. Although a direct question was not asked pertaining to a teacher's character and how it is linked to a Christ-centered curriculum, participants mentioned it as being one of the central points of making curriculum Christ-centered. In describing how a teacher's character makes the curriculum Christ-centered, the mentors said teachers' attitudes are crucial in and out of the classroom. Their positive attitudes can inspire and be a blessing to students.

> Now if the curriculum is looked at as an experience or outcome, then we have as the teacher teaches, the written plan is still implemented, that's good, but there are instances when your body language, and your words spoken can edify or bless the students. (Folder 1, IDI-M1, p. 1)

Teachers could become good role models to students by exhibiting understanding, having the willingness to help students in difficult situations, and showing unconditional love to them. As students see teachers portraying such characters, they are encouraged to emulate them because teachers' actions match their words. Teachers with such positive attitudes show Christlikeness (Adamiak, 2018).

> The life of the teacher, how you treat your students, how you interact with your colleagues, everything is being watched by the student. Going a second mile, understanding the problems of your students, your willingness to forgive, your willingness to take time to understand the difficulties of children. Your willingness to provide for those who need extra help and those who may be challenged one way or the

> other, once you take care of those needs and when they see these things in you, your helping nature, they will know that the faith is practiced in your life. And so it will become a challenge for them to emulate your life because it shows Christ-likeness. And that is the integration of faith. (Folder 1, IDI-M2, p.8)

Mentor 3 explained that high school age is critical because students tend to pick up things quickly. According to him, students can decipher whether a teacher is being a hypocrite or not.

> It's evident that your character, what you do, what you say, and whether those things match is important to young people, particularly you talking about high school academy age. They pick up those things quickly, especially because they know what hypocrisy means and they know when they see somebody doing things differently and they reading their Bibles when they go to church when they see somebody do things differently than what they have said than what they have been taught. So yes, the character is important; if it isn't important then I don't know what else is. What you do, what you say is tremendously important to them. (Folder 1, IDI-M3, p. 15)

Teachers supported the idea that their characters could play a major role in making curriculum Christ-centered. They, therefore, want students to see Christ in them and be good role models to them (Celic et al., 2016).

> As a teacher, as an English teacher, even before I teach the lesson, I want my students to see Christ in me. For me, I think showing true example is even more effective than teaching the lesson itself. (Folder 2, IDI-T2, p. 11)

Teacher 3 was of the opinion that modeling goes far than teaching reputation because students tend to behave like their teachers.

> The students also see how you model in the classroom. Modeling is very important. In fact, I have been here for some time now and I found out that my modeling goes far than my teaching reputation. Students come to me and say, teacher, what you did for me when I was having this challenge really helped me to find myself. So as a Christian teacher, I must model, modeling is very important. (Folder, 2, IDI-T3, p.16)

Students confirmed what teachers' characters meant to them. They said teachers' characters and lives they live meant more to them than the subjects they teach. This is a form of a hidden curriculum because; teachers affect the learning and belief systems of students. It is a demanded norm expected by social beliefs of the students.

> For me basically, it's not really on the subjects they're teaching, but on their character and how they portray their lives the lives. (Folder 3, IDI-S2, G11, p. 4)

> The way the teacher teaches is very humbling and the attitude is very Christlike. (Folder 3, IDI-S4, G12, p. 10)

It is important for Christian teachers to have the spirit of God to be good examples for students. Having the spirit of God is essential since character formation hinges on divine values (Taylor, 2016). Teachers in the classroom represent Christ as an example for their students. Raveloharimisy (2017) pointed out that "students have high expectations for teachers to live up to their faith because they learn better with what they see than what is told to them" (p. 4). Teachers in the discharge of their duties must make sure that their characters are in tune with their behavior in class.

Christ being showcased in all spheres was visible in the school where this study was conducted. I observed four teachers in four different classrooms. In each of the classrooms, they had different Christian materials depicted on the wall. In one classroom, the 10 commandments of the Bible and pictures of

Jesus were displayed on the wall (Folder 5, OG, p. 6). Inspirational messages from the Bible like Grow in Christ and Trust in the Lord Always were also displayed in the classrooms (Folder 5, OG, p. 6). Another classroom had a place created as a prayer corner where students could go to have their devotion (Folder 5, OG, p. 6). Christ was displayed in all avenues in class.

Theoretical implications

Christ being in the center of the curriculum and in every sphere of the school, is based on the theory of theological-psychological approach to curriculum (Loder, 1998). The theory explained that adolescents develop faith (theological) and their identity (psychological) at that level of age; hence, a curriculum with Christ at its center will help high school students who are mostly adolescents to establish a good spiritual foundation. The theory further intimates that adolescents are in their age of disequilibrium, which is a good period to search for God. As adolescents self-examine themselves and reflect, it possibly opens an avenue for them to develop in faith through an opportunity of being taught with a Christ-centered curriculum.

Practical implications

Christ should be the main reference point when a lesson is being taught. He should be the main yardstick to measure all the themes in the lesson being taught. The practical reality is that images of Christ and inspirational Bible quotations should be displayed inside and outside classrooms.

CONCLUSIONS

A Christ-centered curriculum requires that all subjects should be taught in the light of an existing God who has

revealed Himself to humans through Jesus Christ. Christ is integrated into every aspect of the school curriculum, presenting Him as the center of all knowledge. A Christ-centered curriculum has benefits for students in Christian institutions. First, it offers high school students the opportunity of knowing Christ. Students can compare what they studied to the character of Christ. This gives students an alternative to which they can compare and contrast so that they make a value choice in life. Second, a Christ-centered curriculum is a way of introducing high school students to Christ. Encountering Christ at the high school level, which is normally the adolescent age, is the right stage in their lives to know about Christ. At the adolescence stage, high school students are highly open and receptive to new information.

Recommendations

1. School administrators must organize regular workshops and seminars on Christ-centered curriculum training so that teachers will be abreast with current developments in teaching and learning.

2. Teachers should endeavor to practice Christ-Centered teaching daily in the classroom. There should be class devotion before the lesson starts. Students should be encouraged to lead out in conducting class devotions.

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TEACHERS' PERSPECTIVES ON GENERATION Z'S USE OF SOCIAL MEDIA

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Abstract
The development of social networks has determined some changes in the behavior of users, especially those of Generation Z, who spend a lot of time online. Every connection brings benefits, but also some negative consequences for the younger generation. The impact of social networks is also visible in the educational process, in the interactions between students and teachers. The research methodology was based on interviews with 30 teachers. The main results indicate that, from the teachers' perspective, there are advantages for Generation Z using social networks, but also certain risks. The educational process can be improved by the new means of communication, but at the same time it promotes the superficiality and inattentiveness of the students. A balanced coverage and the maximum use of the advantages offered by social networks can contribute to the bio-psycho-social development of the representatives of Generation Z.

Keywords
Social Media, Generation Z, Teachers

INTRODUCTION

Social media has been a game changer in people's lifestyles. Nowadays, it represents an evolving environment that offers new perspectives regarding how people interact. Technological means are directly related to communication in various

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fields. The number of users is on the rise year after year, and the younger generation is interested in having daily access.

A study by Clement (2020) shows that in 2019, the average daily use of social media worldwide will be 144 minutes per day. This compares to 142 minutes the previous year. The Philippines is currently ranked as the country with the highest daily social media usage, with users averaging three hours and 53 minutes daily.

Social media encompasses any digital technology that allows users to connect with other users. Generally, the opportunity to comment on or modify the content of information is a hallmark of social media (Greenhow, 2017). The virtual environment is challenging because of the potential for uncensored expression, socialization, and the creation of new friendships.

In a digitized society, virtual communication is a sine qua non (indispensable ingredient) for interactions between people. Most of the people involved in the educational act (teachers, students) are active members of the new means of communication. Socialization involves the transmission - the assimilation of values, attitudes, or behavioral patterns specific to a group or community from the perspective of the formation, adaptation, and social integration of another person (Zamfir et al., 1998). The use of social networks involves an interactive process of communication in which participants are both senders and receivers.

Teachers can use social networks in the educational act for organization, planning and information. They can also join different groups where the latest information in the field they are involved in is posted. Then there is the possibility of attending seminars that help in personal development and at the same time keep in touch with teachers from different areas of the country and beyond its borders.

However, young people, Generation Z, are the most active on social networks. According to Samsung's Innovation

Report study, Generation Z, also known as the iGeneration, Centennials or Digital Natives, refers to people born between 1995 and 2012. At this moment, 32% of the world's population belongs to Generation Z, making it the category with the largest representation worldwide, and in Romania there are approximately 2.26 million people from Generation Z, between the ages of 13 and 23 (Seol, 2020). It is worth noting that the majority of Facebook users are over the age of 40, according to a study conducted by the Pew Research Center between the 25th of January and the 8th of February 2021 (Figure 1). Teenagers are more interested in Instagram, and children pay more attention to the platform of TikTok.

The new social network is sought by the younger generation, but studies are still being done to discover the psychological and social impact on users (McCashin et al., 2023). Mental health can be affected by how often you go online. However, the younger generation prefers activity on Instagram and TikTok. The most searched content is related to humor (Martínez-Estrella et al., 2023), and users are interested in maintaining a positive self-image.

On the other hand, TikTok helps to appreciate images from various activities and lived experiences, promotes creativity among users by providing various tools for video editing. However, specialists warn about the danger of dependence on the new social network (Bin Salam et al., 2022).

REVIEW OF LITERATURE

Bopp and Stellefson (2020) note that the rapid development of social networking has led to increased use by the younger generation for educational purposes. The authors believe that the new means of communication should also be used from a physical activity perspective. Sedentary lifestyles are a danger for young people who spend a lot of time online.

In studies on the relationship between social media and education, the most discussed topics are related to the introduction, use and effects of new media in the educational process (Denen et al., 2020). The authors believe that it is worthwhile to carry out more complex analyses in order to understand the pedagogical usefulness of social networks.

The opportunities offered by the online environment are also an advantage for students in the academic development process (Rahman et al., 2019). The responses of young people in the higher education system are positive. The use of social media provides a high level of satisfaction and security. Young people value online interactions and find them rewarding in the educational process.

Teachers are challenged by new communication systems not to limit themselves to traditional teaching methods (Namaziandost et al., 2019). In the classical version, teachers did a lot of talking and students became mere spectators. Frequent interactions should take place in every classroom session, and the teacher-student relationship should be close by changing the roles of sender and receiver.

Social networks have become useful tools for teacher training activities. As in the case of Generation Z, the time teachers spend online offers some benefits, but also some risks. The impact of online activities affects intrapersonal and interpersonal communication, as well as interactions with students and other teachers (Carpenter et al., 2019). Therefore, teachers can use the online environment constructively or it can become a harmful environment.

Many adolescents spend time in the virtual world on a daily basis and are not only consumers, but also producers of social media content. Each post conveys a story of the user and followers can discover the mood of the sender (Rubio-Hurtado et al., 2022). Specific training is needed to make young people aware of the dangers of disclosing some of their personal information online in educational activities.

A study conducted in several educational institutions in Pakistan (Abbas et al., 2019) shows that the use of social media has a predominantly negative impact on the behavior of a young person involved in the educational process, beyond the positive aspects of online communication. The benefits, but also the risks of the new means of communication have been analyzed (Goodyer et al., 2019), and the majority of respondents believe that users are no longer effective in educational activities, considering the time spent in the virtual world.

In the virtual environment, young people are attracted by the fast communication and the new possibility of entertainment (Palanisamy et al., 2020). Over time, the younger generation has been attracted to social networks, and adults in families have been surprised by the attraction of new modern media. Today, there is a need to educate parents to protect children from accessing inappropriate sites. There are many dangers, including sending sexual messages, being exposed to vulgar language, or interacting with people who hide their identity.

Some research mentions the great potential of social networks for formal as well as informal education (Greenhow et al., 2018). To get the most out of the online environment, users must not be content to be consumers, but creators of useful material. Specialized educational programs can help the younger generation take advantage of the online environment in the educational process.

The topic of the relationship between social media and the younger generation is topical, and there is a need after media literacy for young people to develop their critical thinking and become intelligent consumers of the online environment (Sachdeva et al., 2019). Involving decision makers (government, educational institutions) by providing training courses would solve some of the current problems. Some information can be added to subjects that are in the curriculum.

The development of social networks has brought changes in several areas, including education. People with advanced online skills are valued in the job market worldwide. A disadvantage is that many countries still use traditional learning methods, which means memorizing information without developing the application side (Vukmirović et al., 2019). The online environment is integrated into the daily activities of young people, and its use in education would be an advantage. Other research mentions the link between mental health and social media use (Holmes et al., 2020). Therefore, the online environment can be an educational tool to raise awareness of the importance of mental health among the younger generation. Useful information from professionals can help prevent some of the conditions that characterize online addiction. There are other risks associated with the use of social media, such as misinformation, cyberbullying, and privacy violations. Therefore, any means of prevention through the promotion of educational materials, even though the virtual environment, can help users.

The impact of online platforms on the younger generation is directly related to their lack of involvement in real socialization. The priority has become online interaction at the expense of real-life interaction (Goswami et al, 2021). Over time, social media users are unable to prioritize the activities that really matter because online presence comes first every day. Lifestyle, social life, leisure activities are directly affected by frequent interactions in the virtual world.

In the educational process, active participation in online communication by using very limited language and relying on automatic spelling on mobile phones severely affects the individual's long-term ability to apply correct spelling (Tilak et al, 2021). The use of emoticons, abbreviations and certain symbols are common in texts sent by the younger generation. However, a more complex mental exercise is needed to achieve creativity in writing and analyzing immediate aspects of life.

The development of technological means has prompted research in several areas to understand the impact, positive or negative, of the virtual world on the user (Wong et al., 2023). The influence is direct on young people and is also related to their diet. Campaigns to promote products through social media have been successful among the younger generation. As a result, some products are consumed based on the existing advertisements and thus the diet is changed.

Excessive use of social media leads to drug-like behavior among individuals. Sleep disturbances and depressive symptoms are also observed (De Donccker et al., 2022). Young people spend the most time online and are the most affected. Studies are needed to understand the consequences of prolonged use of social media.

On the other hand, the positive impact of the online environment in the educational process is highlighted in the study by Ansari and Ali Khan (2020). Social networks play an important role in effective interaction with other students and teachers. Used intelligently, new communication media can contribute to academic achievement. Young people can be more creative, dynamic, and research-oriented in order to acquire new information in a given field.

There are also many teachers who do not use social networks, not having the necessary training and at the same time considering that there are certain risks in the online environment. However, academic staff who use the new technology appreciate the fast communication, promoted information and creativity on social networks (Chugh et al., 2020).

For pupils and students, the new means of communication represent an advantage in the educational process. Accessibility, quick interaction and diversity of materials are aspects appreciated by the younger generation. Through the use of social networks students believe that academic performance is improved (Al-Adwan et al., 2020). The online promotion of some educational institutions is appreciated by young people.

Modern technology also helps learning a foreign language much easier, such as English (Yu et al., 2022). Classic methods cannot be adapted to a high performing level like social networks. Thus, social, cognitive and emotional engagement is greatly enhanced. Updating data from the online environment is fast, and access to information is permanent by connecting to social networks.

METHODOLOGY

Within the framework of the present qualitative analysis, the following objectives were established to contribute to the achievement of concrete results: (1) identify the benefits of using social networks by Generation Z; (2) identify the risks of using social networks by Generation Z; (3) analyze the influence of social networks on the educational process.

Research questions

The research questions used in the research are as follows:

1. How do members of Generation Z relate to social media?
2. What are the main reasons why young people are connected to new technological means?
3. What are the opportunities and risks perceived by teachers regarding the new means of communication?
4. How and to what extent does the use of social networks influence the educational process?

Data collection methods

The methodology used was qualitative, based on a semi-structured interview. The time allotted for the interview was 15-20 minutes, and the interviews took place during school breaks or during teachers' free time. The tool used was

designed by the author to be able to include the aspects pursued by the study.

The research is a case study to analyze the connection between social networks and the educational process from the perspective of teachers. The instrument used in the study was the interview guide that was designed for the teaching staff. The questions asked during the interviews were the following:

1. What do you think are the advantages of young people's use of social networks?
2. What worries you most about the online environment?
3. How has the educational process been influenced, positively and negatively, by the use of social networks?
4. What recommendations do you have for young people addicted to social media?

Participants

The participants for the qualitative analysis consisted of 30 teachers who were selected for the semi-structured interview according to the following criteria: a) they must be teachers employed at one of the educational institutions involved in the study; b) they must teach in a high school class; c) they must be available to participate in the study. Most of the teachers (43.3%) who responded to the interview have more than 20 years of experience in education. This aspect is important because these people have experience in the educational framework and have had the opportunity to meet several generations of children. Therefore, I can highlight the aspects that have been lost over time and that were important for the full development of the students.

The number of teachers with 15-20 years of experience is also quite high (23.3%), followed by teachers with 10-15 years of experience and those with less than 5 years of

experience, with the same percentage (13.3%). The lowest index is for those who have been working in the educational system for 5 to 10 years, 6.7%.

According to the information above, it is understood that people with seniority in education were involved in the research. Those teachers have worked with multiple generations of students, including those who did not study in the era of social media development. Therefore, they were able to compare the educational outlook before and after the advent of new means of communication.

Ethical considerations regarding the role of social networks in the educational process have been the subject of many intense debates. On the one hand, there is the perspective of young people who consider them very useful, and on the other hand, the reaction of teachers who also mention the limiting aspects of the new means of communication. Interpersonal relationships represent a foundation for the structuring of personality, personality being both the result of interrelationships and the creator of interrelationships (Roratu, 2019).

On the other hand, there are concerns from users about the privacy of posted information and the exposure of personal data in the online environment (Hensley, 2023). However, both teachers and students must maximize the advantages of the new means of communication.

RESULTS

The synthesis of the answers received from the teaching staff to the questions of the research segments incorporated in the interview includes several aspects (Table 1). Each emphasizes a direction of the new means of communication.

First of all, there are the advantages of the use of social networks by young people from the teachers' perspective, as follows: easy access to information; social binder, annex of the identity domain; real-time communication; transmitting

information quickly; maintaining friendships; developing digital skills; interplay; making connections with people who share their interests, socialization; effective way of intercultural communication; expressing creativity through posts.

Second, there are concerns about spending too much time online. The teachers believe that there are some disadvantages, as follows: loss of contact with reality; invasion of privacy; pornography; violence; wasting time with trivial things; lack of means of control and protection; the circulation of uncensored information; use of personal information and data; verbal violence; the promotion of non-values; the negative influence of influencers; addiction; self-centeredness; the fact that we do not know for sure who we are talking to, what the other's intentions are; lack of related legislation, lack of safety for young people in the online environment; superficial communication; toxic environment for peddling false information; the online environment doesn't worry me.

Thirdly, from the perspective of the educational act, teachers believe that there are also positive aspects with the development of new means of communication, among which the following are mentioned: people are open to ideas different from their own; making information accessible; materials can be sent more easily to students; maintaining the school-parent link; fast communication; information reaches many people in real time; the methods and procedures used in teaching the subject have multiplied. In addition to the opportunities specified above, teachers also mention negative aspects through the development of social networks, as follows: it encourages superficial thinking; diminishes the ability to differentiate between reality and fiction; spending a long time online; affects the teacher-student relationship; limits thinking and originality; easy access to information, at the expense of research and in-depth study; functional illiteracy, distracts during classes; posting videos with other classmates without their consent; is addictive; loss of interest in constructive reading.

Fourth, teachers offered practical suggestions for young people to limit their time online. Among the teachers' advice, we mention the following: to take a break for a few months, then use in moderation; to seek help as soon as possible and to find real activities in which they can get involved; to spend time with loved ones; to give up social networks; to sell phones; make a strict schedule and stick to it; to manage time rationally; to set a time to relax in nature, socialize with friends in the real environment, not virtual; get outdoors more with colleagues and real friends, read more, really socialize; learn the differences between fact and The synthesis of the answers received from the teachers to the questions of the research segments included in the interview includes several aspects (Table 1). Each of them emphasizes a direction of the new means of communication.

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Fifth, teachers believe that life without social media would have both advantages and disadvantages. Therefore, teachers

continued the statement "life without social media would be..." in the following ways: an oasis of calm; 20 years ago; the morning dew; no stress; unchaining and unleashing; a jungle without too many dangers; food without spices; a fairyland without adventure and danger; a true friendship that you take seriously and enjoy spending quality time with; soccer without the ball; a life lived to the fullest; awkward; a house with the curtains always drawn; more beautiful, people would spend more quality time with friends.

The results of the study offer certain perspectives that can contribute to the awareness of the impact of social networks on Generation Z from the perspective of teachers. New modern means can bring a loss of security, privacy, and freedom (Taplin, 2019) for users.

DISCUSSIONS

In today's society, being connected online on a daily basis has become normalized. According to the digital consumption report for Romania, at the beginning of 2023, 67.3% of the Romanian population are users of social media platforms, while 88.9% of the total population have access to the Internet. Digitization has been successfully adopted: the equivalent of 145.4% of the total population had active telephone connections in the first months of 2023, which means almost 30 million connections from mobile devices (Kemp, 2023). Interactions in the online environment are frequent and blocking access, even for certain objective reasons, causes anxiety among young people.

The present study shows that social networks are recognized by teachers as a commonplace in the life of a young Generation Z. The impact of their use is complex, and the results are long-term. The existing debates in society are influenced by the degree of knowledge of the new modern means of communication.

The present study indicates that social networks are recognized by teachers as commonplace in the life of a young Generation Z. The impact of their use is complex, and the results are long-term. The existing debates in society are influenced by the degree of knowledge of the new modern means of communication.

For example, during the pandemic, Generation Z, more than the other age groups, spent the most time in the virtual environment. Watching videos and TV shows with the help of the Internet, but also playing online games were the favorite activities (Figure 2). Also, exponents of this generation listened to music and read the press online. Communication on social networks was part of the daily schedule, even though through social media there was a danger that the psychological state of individuals would suffer (Liua et al., 2021).

Part of the time was also used for reading, but also listening to audio materials. There was no shortage of reading the print media to learn about events around the world. In addition to other activities, the study also indicates a relatively high interest in live-streamed events. Analyzing the results of the study, we better understand why among the ten important directions that shape generation Z (Twenge, 2020), we find No rush (continuation of childhood into adolescence), Internet or Inclusion (acceptance, equality, and debates on freedom of expression).

In the educational process, there is a need to adapt teaching methods according to new technologies. Learning through these networks is an attractive educational alternative that reduces time, social, spatial, or other restrictions (Pascu, 2015). The advantages of this type of learning are multiple, among which we mention: the space in which they work is intimate and does not require formalization, the user can learn at his own pace, quickly controlling his progress, benefiting from fast and permanent feedback, the interaction with the teacher is free and non-constraining, no travel expenses or

interruption of the current professional activity are necessary, if the traditional education is organized by age groups, the online one is organized by subjects; in a virtual class, subjects of all ages, with different training, can be brought together, neglecting spatial boundaries. In conclusion, the use of social networks in education represents the recognition of the social change produced by this phenomenon.

The topic of social networks remains topical, and through constructive discussions new means of communication can help develop the educational process. Students, teachers, parents, and the level of knowledge about the new modern means of communication influences the existing debates in society.

The present study shows that social networks are recognized by teachers as a commonplace in the life of a young Generation Z. The impact of their use is complex, and the results are long-term. Existing debates in society are influenced by the level of knowledge about the new modern means of communication.

For example, during the pandemic, Generation Z spent more time in the virtual environment than any other age group. Watching videos and TV shows over the Internet and playing online games were among their favorite activities (Figure 2). They also listened to music and read the press online. Communication on social networks was part of the daily schedule, even though there was a risk that social media could affect the psychological state of individuals (Liua et al., 2021).

Some time was also spent reading, but also listening to audio materials. There was no shortage of reading print media to keep up with events around the world. Among other activities, the study also shows a relatively high interest in live-streamed events. Analyzing the results of the study, we can better understand why, among the ten important directions shaping Generation Z (Twenge, 2020), we find No rush (continuation of childhood into adolescence), Internet or Inclusion (acceptance, equality, and debates on freedom of expression).

In the educational process, there is a need to adapt teaching methods to the new technologies. Learning through these networks is an attractive educational alternative that reduces time, social, spatial, or other limitations (Pascu, 2015). The advantages of this type of learning are multiple, among which we mention: the space in which they work is intimate and does not require formalization, the user can learn at his own pace, quickly controlling his progress, benefiting from fast and permanent feedback, the interaction with the teacher is free and not constraining, no travel expenses or interruption of the current professional activity are necessary; if the traditional education is organized by age groups, the online one is organized by subjects; in a virtual classroom, subjects of all ages, with different training, can be brought together, neglecting spatial boundaries. In conclusion, the use of social networks in education is a recognition of the social changes that this phenomenon has brought about.

The subject of social networks is still topical, and, through constructive discussions, new means of communication can contribute to the development of the educational process. Students, teachers, parents, and decision makers (government, educational institutions) must work together to maximize the benefits of the online environment for the educational system.

Organizing periodic trainings for teachers, offering appropriate programs and regular meetings for the exchange of experiences can contribute to the efficiency of the educational process through the new means of communication. Also, some meetings with parents can help to provide useful information from the online environment and present some risks of the online environment.

Providing facilities from the state for the purchase of modern equipment, merit scholarships for those who promote useful methods of using social networks in the educational process are work options. The adoption of effective modern

technological methods from other countries deserves to be integrated into the country's schools.

CONCLUSIONS

The answers given by the teaching staff confirm the three hypotheses of the study. Therefore, the use of social networks by young people involves both certain opportunities and risks. Then, the development of new communication technologies directly and indirectly influences the educational process. Moreover, excessive use of social networks decreases students' bio-psycho-social well-being. There is a danger that real-life interactions are limited by spending too much time on social media (losing touch with reality, shallow communication, encourages isolation, reduced interaction with teachers).

The fundamental requirements of the human being are found in the propositions of the virtual universe: friendship, love, appreciation, joy, and a pleasant existence (Katzer, 2018). However, for members of Generation Z, by being exposed to the online environment for a long time, there is a danger of acquiring violent language, decreasing self-esteem, and being negatively influenced by a harmful online environment.

The responses of the teachers confirm the three hypotheses of the study. First, the use of social networks by young people presents both opportunities and risks. Then, the development of new communication technologies directly and indirectly influences the educational process. In addition, the excessive use of social networks reduces the bio-psycho-social well-being of students. There is a risk that too much time spent on social media will reduce real-life interactions (loss of contact with reality, shallow communication, increased isolation, reduced interaction with teachers).

The basic needs of human beings are found in the propositions of the virtual universe: friendship, love, appreciation,

joy, and a pleasant existence (Katzer, 2018). However, for members of Generation Z, prolonged exposure to the online environment can lead to the acquisition of violent language, reduced self-esteem, and the risk of being negatively influenced by harmful online environments. Teachers also acknowledge that social media has its place, but young people need to better manage their time and find a balance to avoid addiction. Outdoor activities, direct interaction with family members and friends are ways to avoid being in the virtual environment.

Most teachers believe that there are many benefits to giving up online interactions altogether. The suggested perspective needs to be evaluated considering that many of the teachers involved in the study were involved in education 20 years ago when the online world was not as developed. The new generations of teachers, although active in the online environment, recognize the negative impact of social networking on Generation Z.

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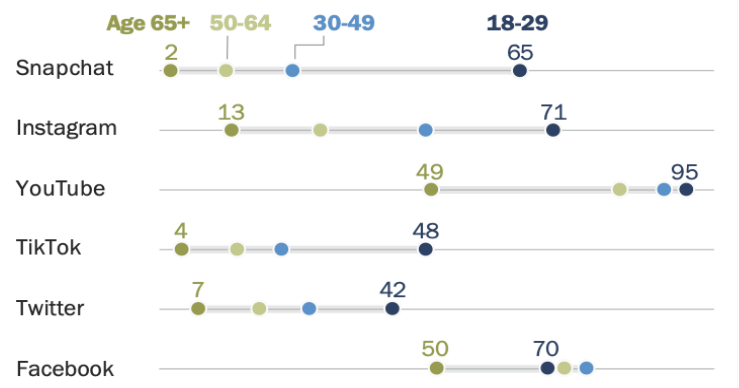
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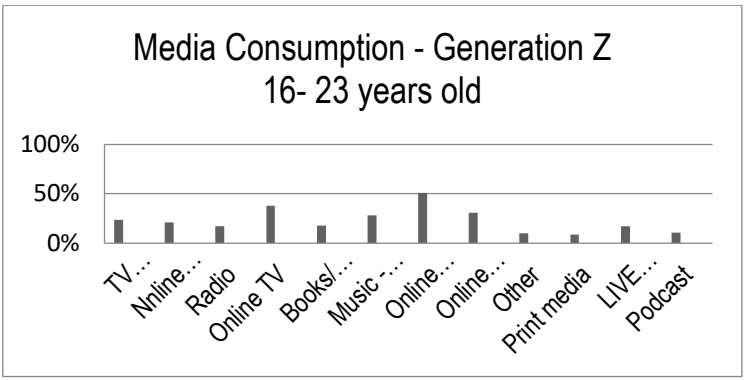
APPENDICES

Figure 1
User ages in the virtual environment



Note: Source - Pew Research Center, April 2021

Figure 2
Covid-19 media consumption by Gen Z (%)



Note: Source - Visual Capitalist, Global Web Index, Research Report Coronavirus - April 2020

Table 1

Synthesis of the answers given by the teachers to the questions of the research segments included in the interview

Research segments	The main answers
The benefits of the use of social media by young people.	Easy access to information; Social binder, appendix of the identity domain; Real-time communication; Fast transmission of information; Maintaining friendships; Developing digital skills; Interaction; Making connections with people who share your interests, socialization; Effective way of intercultural communication; Expressing creativity through posts;
Reasons to be concerned about the online environment.	Loss of contact with reality; Breach of privacy; Pornography; Violence; Wasting time with trivial things; Lack of means of control and protection; Circulation of Loss of contact with reality; Invasion of privacy; Pornography; Violence; Wasting time on trivial things; Lack of means of control and protection; Circulation of uncensored information; Use of personal information and data; Verbal violence (bullying); Promotion of non-values; Negative influence of influencers; Addiction; The fact that we don't know for sure who we are talking to, what the other person's intentions are; The lack of relevant legislation, the lack of safety for young people in the online environment; Superficial communication; Toxic environment for spreading false information; The online environment does not worry me;
The influence of social networks on the educational process.	**Positive** - People are open to ideas different from their own; making information accessible; materials can be sent to students more easily; maintaining the school-parent relationship**.** Link; fast communication; information reaches many people in real time; methods and procedures used to teach the subject have multiplied; exchange of experiences between schools from different geographical areas; quality video resources that could improve the didactic act; online hours during the pandemic; offers new perspectives for getting a message across.

Research segments	The main answers
	Negative - Encourages superficial thinking; reduces the ability to distinguish between reality and fiction; spending long hours online; affects the teacher-student relationship; limits thinking and originality; easy access to information to the detriment of research and in-depth study; functional illiteracy, distracts during class; posting videos with other classmates without their permission. consent; is addictive; loss of interest in constructive reading; cultivation of selfishness; students have run out of time because of social networking; ability to concentrate has decreased, boredom sets in quickly, desire to read books has decreased greatly; demotivation, lack of control; encourages isolation; encourages little teacher-student interaction, with serious consequences for education. It can be a useful tool in the teaching process, but ineffective in terms of actual class participation and ineffective assessment;
Recommendations for young people with a social networking addiction	To fast for several months, then use sparingly; To seek help as soon as possible and find real activities to get involved in; To spend time with loved ones; To give up social networks; To sell the phones; To make a strict schedule and stick to it; To manage time rationally; To set aside a time to relax in nature, to socialize with friends in a real environment, not virtual; To get out more with colleagues and real friends, to read more, to really socialize; To learn the difference between fact and fiction and to appreciate privacy; To make real friends; Live your life, you only have one; Control this addiction by highlighting the educational aspects that social networks can bring; Life is more beautiful free of any addiction; Get off social media as soon as possible; Don't forget that this is false socialization; Balance and filter; Build a controlled system of time spent on social networks; Do sports, go out in nature; Open the phone only after achieving their important goals for the day; Re-evaluate their priorities in life; Consciously control and replace with other constructive activities;

Research segments	The main answers
Living without social media would be...	An oasis of peace; 20 years ago; the morning dew; no stress; unchaining and releasing; a jungle without too many dangers; food without spices; a fairy tale land without adventure and danger; a true friendship that you take seriously and enjoy spending time with; soccer without a ball; a life lived to the fullest; awkward; a house with the curtains always drawn; more beautiful, the world would spend more time with friends; a summer vacation with the grandparents; an unpolluted mountain stream; a life without light; a world more eager for face-to-face communication; contemporary man in archaic times; a tree planted by the water's edge; a panorama from the top of a mountain without fog, a woman without makeup; a lake without frogs (the lake exists, but there are no sounds, which can make you happy if you hear them a little, but can stress you out if you spend too much time around them); the city without pollution.

Note: Source - Generated by the author