A Survey on the Learning Experiences of Grade 12 STEM Students in Online Distance Learning

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ABSTRACT

This study is a survey on Grade 12 STEM students' learning experience in online distance learning. The study is undertaken to determine the learning experiences of the Grade 12 STEM students. Specifically, it aims to answer the following questions: (1) What is the demographic profile of the respondents in terms of their sex? (2) What was the students' overall learning process in online distance learning? (3) What was students' perception of the learning community in online distance learning? (4) What was students' perception of student support in online distance learning? (5) What were the benefits and barriers during online distance learning? (6) Is there a significant difference in the overall learning experiences of the respondents in terms of sex?

The study utilized descriptive research design. The respondents will be utilizing researcher-modified questionnaires. The researchers also took selected statements from the review-related literature to help in answering the statement of the problem. The researchers constructed a self-made online questionnaire in Google form for the study and sent it to the respondents' Messenger accounts. On the interpretation of the data, it was revealed that majority of the respondents are agree to the statements asked about the students over all learning experiences. Lastly, findings revealed that there is no significant difference in the overall learning experiences of the respondents in terms of sex.

Keywords:- online distance learning, learning process, perception, support, barriers.

CHAPTER 1

INTRODUCTION

The World Health Organization (WHO) has declared the pandemic of the COVID-19 (2019 novel Coronavirus) infection, now known as COVID-19, it has become a major public health challenge worldwide. The infection control and physical distancing measures are crucial to prevent the virus from further spreading and to help control the pandemic situation. The policy of compulsory physical distancing has been implemented in many countries, resulting in nationwide school and university closures. In accordance with this policy, educational institutions are compelled to make appropriate and timely modifications in order to continue to deliver education and to sustain the continuation of student academic progress. The teaching and learning activities were immediately shifted to a full online distance learning.

Just like educational institutions around the world, Southeast Asia's educational institutions are now embracing virtual and distance learning. Nonetheless, the abrupt change to online distance learning has raised uncertainties about whether Southeast Asia's educational system is ready for the implementation of this new mode of learning (Jamal, 2020). Hence, the COVID-19 pandemic brought negative impacts on society, and the most affected sector in the Philippines is the academic sector (Abel &Mcqueen, 2020). This condition has led civilians in the Philippines to be worried about the country's well-being, its people's safety and health, and the future of its educational system. As the local community continues to confront different issues brought about by the COVID-19 pandemic, educational institutions have offered virtual and distance modes of learning, such as modular and online courses. The Notre Dame of Midsayap College (NDMC) also adopted online distance learning in the midst of a pandemic. Along with the researchers' course of research, the researchers found that studies on the students' learning experiences during online distance learning were few, and the closest perhaps to this study is entitled "Integrated Students' Perspectives About Online Distance Learning." This study was conducted in the year 2020. It found out that students who accepted or embraced online courses on their own merits wanted a minimum of basic online modality, teaching presence, cognitive presence, online social comfort, and social presence. Students, who preferred face-to-face classes and demanded a comparable experience, valued Online Interactive Modality and Instructional Support more highly. However, this study failed to identify the significant difference in terms of sex in the overall learning experiences of the respondents.

The current setting brought a lot of adjustments, since the new mode of learning is a new experience for the students of NDMC. In light of the ongoing situation, the researchers are determined to determine the perspective of the Grade 12 STEM students on the learning experience of online distance learning.

A. STATEMENT OF THE PROBLEM

This study aims to determine the perspective of the Grade 12 STEM students on the learning experience in online distance learning. This study is sought to answer these following questions:

1. What is the demographic profile of the respondents in terms of their sex?
2. What was the students' overall learning process in online distance learning?
3. What was students' perception of the learning community in online distance learning?
4. What was students' perception of student support in online distance learning?
5. What were the benefits and barriers during online distance learning?
6. Is there a significant difference in the overall learning experiences of the respondents in terms of sex?

B. Scope and Limitations

This study is focused on the learning experiences of the students in online distance learning. The respondents to this are the Grade 12 STEM students of Notre Dame of Midsayap College for the academic year 2021-2022. This study was conducted online distance learning with the use of technology due to health protocols that were set due to the COVID-19 pandemic and circumstances beyond our control, specifically the availability of other resources and respondents. With 120 Grade 12 STEM students covered as the respondents.

C. Significance of the Study

There is a significant meaning to the present research. In this study, we will know what the students need to adjust, todetermine the quality of education based on the student's learning experience during online distance learning.

This can be beneficial to the following:

- <u>Students</u>. This study can or may help the students to be prudent and learn/obtain better learning habits/styles that would fit to their comparability in handling particular tasks/activities
- <u>Administrators</u>. This may help the educators to acknowledge the negative habits of the students in order to find/create an educational platform that would pique the interests of students for them to obtain livelier learning habits/styles.
- <u>Department of Education</u>. This study is beneficial to the DepEd for them to know the effects of online education on the students. For them to know the students' learning habits so that they can make a move about it.
- <u>Future Researchers</u>. Generally, it aims to know the effects of online education on the learning habits of the Grade 12 STEM Students of NDMC.

D. Definition of Terms

- <u>Online distance learning</u>. It refers to the method of study where teachers and students do not meet in the classroom but use the internet, e-mail, mail, etc.
- <u>Institution-</u> a society or organization founded for a religious, educational, social, or similar purpose.
- <u>Learning experience-</u> refers to any interaction, course, program, or other experience in which learning takes place, whether it occurs in traditional academic settings (schools, classrooms) or nontraditional settings (outside-of-school locations, outdoor environments).

E. Related Literature

This section contains literature and studies on COVID 19, Online Distance Learning, Remote Learning, Learning Experience, Learning Process, Learning Community, Student Support, Benefits and Barriers during Online Distance Learning. These materials were gathered from E-sources on Google Scholar, Google Books, Academia.edu, ResearchGate, and Sage Journal. These materials provided the researchers with an exhaustive review of the topic and the essential background knowledge to pursue this study.

a) Online Distance Learning during COVID 19

COVID-19 was declared on March 12, 2020, but every week later they declared that every school would be closed because of the pandemic. The closure of schools has a huge impact on students. Understanding the barriers encountered by parents will also help school administrators and enhance the school environment for distance learning during the COVID-19 pandemic. Abuhammad, S. (2020). The COVID-19 pandemic doesn't contain the limited possible time considering that the school's academic calendar was suddenly disturbed and can affect the studying time of the students. Teachers expect a drop in the performance of Grade 12 students this school year if the COVID-19 pandemic continues to cause a rise in the number of cases, according to Sintema, E. J. (2020). Academic activities have been seriously disrupted as a result of COVID-19's lockout. Jordanian university students' learning experiences during the COVID-19 pandemic While a major proportion of students use digital learning tools, many of them face immense online learning challenges like Internet

connectivity issues, dedicated space for studying, personal devices for attending online classes, and also the feeling of anxiety. Alsoud, A. R., &Harasis, A. A. (2021). The impact wasn't limited to the educational system; it has also affected the student's learning experience when it comes to accessing research and study materials. For instance, students' ability to access textbooks and resources they have to review is often hampered by a lack of copyright limitations and exceptions. Hebebci et al. (2020).

b) Online distance learning

Online distance learning may be a methodology of education within which the learner is physically separated from the teacher and, therefore, the establishment sponsoring the instruction. According to Ghaffari (2011), it will be utilized alone in conjunction with other types of education, including face-to-face instruction. The contract between the instructor and learner, whether in a very old schoolroom or through remote education, requires that the student be tutored, assessed, guided, and, if applicable, prepared for examinations that may or may not be performed by the institution. Learning can be done alone or in groups, but in any case, it is done without the actual presence of the teacher via online distance learning. Although online distance education allows adult learners to continue their education, there are still barriers to their participation in educational processes. According to Kara, et al. (2019), it also shows that the challenges faced by adult learners vary depending on their age, gender, knowledge, and skills, which is exploratory in nature and has several implications for distance education stakeholders such as administrators, instructors, instructional designers, and policymakers.

Furthermore, rapid technological advancements have resulted in distance education being easy to understand (McBrien et al. 2009). The ability to learn from anywhere, at any time, in any rhythm, and with any means that a laptop connected to a network affords is shared by most terminologies such as online learning, open learning, web-based learning, computer-mediated learning, alloyed learning, and m-learning (Cojocariu et al. 2014). Online distance learning is termed as a tool that will make the teaching-learning method more student-centered, innovative, and even more versatile. According to the definition of online distance learning, "learning activities in a synchronous or asynchronous setting make use of a variety of internet-connected devices." Students are free to learn from and interact with professors and other students in various settings. Singh and Thurman (2019) Students attend live lectures, there are intervals of interaction between educators and learners, and there is a possibility of quick feedback in the asynchronous learning environment, but asynchronous learning settings are not well designed. Learning content is not available in the form of live lectures or seminars in such a learning environment, but it's obtainable through completely different learning systems and forums. Synchronous learning will offer heaps of opportunities for social interaction (McBrien et al. 2009). Amidst this deadly virus unfolding, such online platforms are required wherever video conferencing with a minimum of forty to fifty students is feasible, discussions with students are done to stay organic, net connections and lectures are sensible and accessible on mobile phones, the chance of looking at already recorded lectures and instant feedback from students is achieved, and assignments are taken (Basilaia et al. 2020).

c) Learning experience

According to Mokiwa&Phasha (2012), one of the learning experiences of the students using such forms of technology was the challenges of using technologies to read mathematical and scientific signs, which are related to the STEM strand. Another one was the inability to access graphic learning materials. As most learning tends to be vision-based, with graphics used to illustrate and elaborate on learning content, students with visual impairment often feel excluded. Including the incompatibility of software, these challenges pose more problems when a student is in rural areas where it will take more money and effort to travel to the closest hub to get the problem addressed. When a student is writing an exam, it's much worse. Another learning experience raised by the students was the difficulty of accessing electronic learning materials on time, particularly the difficulty of receiving the learning materials.

In the study conducted by Musingafi et al. (2015), it was found that most students showed that they had challenges in working with information and communication technologies. Late/ineffective feedback from instructors, lack of instructor contact and inadequate academic support, difficulty in attending laboratory practicals, unhelpful course information and lack of direction, lack of sufficient time for study, financial constraints, lack of family support, unfavorable home learning environment, difficulties in learning technically demanding material, and lack of experience were among the learning experiences expressed by the students. As a result, learners who are suffering from the isolation and remoteness of distance learning may be burdened by delayed and ineffective feedback. There was also the problem of unhappiness with the performance of lecturers and instructors. Students believed that most of their professors came unprepared for class and waffled on without saying anything necessary to them. Most lecturers were described as ineffective. Students were unsatisfied with delayed study materials, particularly e-modules. Students are affected intellectually, mentally, and financially in this environment.

Students may be forced to submit assignments that are not correctly written due to a lack of study resources, and they are more likely to arrive for tests without adequate preparation, resulting in poor results. It's possible that their bad performance isn't a real indication of their academic capabilities. Some students may persist at a slow pace, resulting in the late completion of programs. Others discontinue their studies. According to Mahaneswaran et al. (2020), students are still adjusting to the new working from home norms, but they are dissatisfied with certain aspects that must be considered, such as distractions, technical issues, staying motivated, time management, understanding course expectations, adapting to unfamiliar technology, lack of in-person interaction, and uncertainty about the future. During the pandemic, the majority of students were unsatisfied with the use of the virtual learning mode (Aiman, 2020). Additionally, proper technology is required to improve internet access, allowing students to use the internet for both their lessons and study resources.

d) Student support
According to recent surveys, students had and continue to have a greater need for financial help and academic guidance as a result of the pandemic, Blankstein et al. (2020). During the pandemic pivot, students' experiences were varied. Experts warn that as institutions and students face longer-term needs for remote teaching and learning, students may have more assistance than ever as they deal with new emotional, social, and financial challenges (Blankstein et al., 2020; Burke, 2020; Hinton, 2020). Students may find it even more difficult to stay motivated in their studies as they try to balance work and family obligations (Blankstein et al., 2020; Fishman &Hiler, 2020; Hinton, 2020). The overall situation has had a significant negative impact on students, with an increase in the number of cases of mental distress (Pisano et al., 2020).

According to Agrawa et al. (2020), a problem for support of the online student is that technology has been largely silent in much of the conversation about student learning support. There are individual consultations offered online, though, as our own experience demonstrates, these often prove to be quite problematic once they occur online. The main problem is that students, as mentioned, often need a quick fix and feel they need no time to develop the necessary skills and understanding, as opposed to a face-to-face situation where there's some time for the flow of questions and discussion, the referencing of relevant material, reiteration, and illustrations. For students, the online discussion process might be difficult. The SLS (Student Learning Support) model we offer here contains five primary ways to help students: one-on-one consultation (clinical model) via an "open door" policy; separate accredited subjects inside current courses; parallel classes; generic support; and teaching and learning partnerships that strive to incorporate student learning support into the main teaching program. One-on-one consultations, particularly if they are continuing, may develop into a conversational SLS model. Generic support is additionally offered in the form of workshops, summer and winter schools, fliers, and general study guides. These answers are general must-update aspects of educational skills and aren't linked to any subject or course specifically. They provide the chance for

students to explore the skill development process in itself before interpreting the applications of those skills in terms of their discipline focus. In 2020, the International Association of Student Affairs and Services (IASAS) noted the importance of addressing the essential personal needs of students through a comprehensive set of out-of-the-classroom student services. These programs are meant to "allow and empower students to concentrate more fully on their studies and personal development, both cognitively and emotionally."

They should also result in improved student learning outcomes and, as a result, increased retention and throughput (graduation) rates "(Ludeman& Schreiber, 2020, p. 10). Providing high-quality and equitable student support services isn't only important to student success; it's required by accrediting bodies (Barr, 2014; Council of Regional Accrediting Commissions, 2011; Currie, 2010). Smith (2005) argued that teaching institutions should provide an online student service that accomplishes three key objectives: (1) Determine the needs of its online and face-to-face learners. (2) make sure that services are available when the learner wants them, instead of when the institution is prepared to produce them. (3) Ensure that the virtual services are at least as good as, if not better than, their in-person counterparts. Leaders in student affairs and services see their roles as supplements to the educational function, where the assistance they provide to students lays the groundwork for student success in school and beyond, when students graduate and begin to contribute to society (Ludeman&Schreider, 2020).

Importantly, student support services foster a sense of belonging for students (Pelletier, 2020). Prior to the pandemic, most student support services were provided on-campus, and since student support personnel had less physical contact with online students, they would not have fully appreciated that specific population's expectations and perceptions (Forrester & Parkinson, 2006). According to research, institutions are not offering fair student support services to online students, with the greatest severe gaps found in student advising and counseling services. Calhoun, Green, and Burke (2017), arguing for a more balanced perspective, found that the service gap between face-to-face (F2F) and online students is also linked to inadequate coverage of online student needs in student affairs preparation programs, implying a more systemic issue with service provided to online students in practice. Interview questions during this study related to the support of online students sought to grasp this gap more fully. Not surprisingly, the sudden shift to a completely virtual environment brought thesegaps to the attention of the whole campus community and, therefore, the higher education sector generally.

e) Learning process

According to Landmark Outreach Staff (2019) many students believe that there is a "natural" way to study and learn. They are unaware that several methods are used to develop comprehension and demonstrate what has been learnt. One of the most essential things we can do as instructors is to help pupils understand their own learning processes. We frequently educate our students in the manner in which we prefer to study. If we do so, we may be losing out on opportunities to empower their learning. Landmark Outreach Staff (2019) states that being conscious of our distinct thinking and learning styles is essential to being a successful student and excellent teaching. The sixth teaching principle of Landmark encourages instructors to include students in the learning process.

When we assist them in realizing that individuals learn in different ways and guide them in identifying their own learning styles, we contribute to their academic success. Additionally, inviting students to engage in the planning of how they will learn and exhibit their learning increases their drive.

Students bring their own frames of reference to class. Their individual experiences and expertise have an impact on them as learners and should be considered. As a result, teachers should consider student feedback as much as possible during each exercise by explaining tasks, listening to recommendations, asking for ideas, and giving students an adequate opportunity to discuss their views.

Furthermore, teachers should include students in measuring their own development through test results, written reports, and educational goals by evaluating test results, written reports, and educational goals. Students can become more aware of how they learn and why particular abilities are beneficial by creating and improvising chances to include them in the learning process. As a result, learners are more motivated and inclined to use such abilities independently. In other words, an included student becomes a motivated learner who is involved in his or her education.

Involving students in the learning process is frequently related to formative assessment of learning. Formative assessment, at its most basic level, requires us to assess students while they are learning, rather than later, as summative assessment does. Why? Continuous assessment like this keeps students and instructors focused on the learning objectives and provides them with concrete proof of their strengths and needs before it's too late to make changes. Formative learning evaluation involves more teacher-student interaction than is typical in a standard classroom. It also happens to be an effective strategy for assuring student success (Landmark Outreach Staff 2019).

f) Benefits and barriers during online distance learning

Distance learning is the same as online learning in terms of implementation. Distance learning is defined as teaching and learning activities carried out through the use of technology and information in a structured manner in which there is regular, substantive, and supportive communication/relationships between students and teachers (Bozkurt et al., 2015; Bueli, 2017; Griffiths, 2016). Distance learning emphasizes the absence of face-to-face meetings between students and professors, which can be replaced by virtual meetings in the form of video shows, written material presentations, graphics, and pictures, both in real time and delayed (Griffiths, 2016). (Some of the benefits of distance learning include: overcoming geographical barriers in student communication; flexible class hours; the ability to use it as a supplement to full-time education or as an alternative; the ability to educate people with special needs (people with disabilities); a simplified way of organizing educational activities for teachers; and reduced material costs (there are no costs associated with distance learning) (responsibility, self-discipline, and self-organization). Learn whenever and wherever you want because the materials are available 24 hours a day, 7 days a week, and can be accessed from any location, allowing any trainee to join a given training without the usual inconvenience; save time because there is no need to travel to training, which causes so many inconveniences and becomes a barrier to training; the student learns at their own pace and becomes autonomous, taking responsibility for their own learning. He may pick the subject and go at his own pace, and the course materials can be utilized in subsequent courses, either partially or completely, with current information.

Students in a distance learning setting frequently encounter the following challenges: (1) less student/teacher interaction, because communication is conducted over the Internet, resulting in a physical and/or temporal distance. (2) a lack of enthusiasm and rhythm drive, as well as attentiveness and student engagement (3) It necessitates extra time in the preparation of material activities and training, as well as an excess of activities and tasks to be provided to students. (4) Difficulty managing time and juggling family and academic responsibilities. (5) Technology proficiency among teachers and students. (6) There is a lack of equipment for professors and students. (7) Internet connection speed and expenses, because this system necessitates the use of the Internet as a critical communication tool, resulting in Internet usage costs. (8) Bandwidth, which does not always allow for effective content transmission.

g) Learning community

An online learning community is one kind of virtual community. It does, however, serve a specific purpose in learning and education. It's a virtual entity that brings together learning and community (Downes, 2020). There, students may learn not only how to take online classes but also how to communicate with other students. Clark (2016) presents three concepts for creating an online learning community. To begin with, he underlines that a learning community is not created, but rather nurtured. According to Clark, a community will be strong if its members mold it to establish its own environment. As a result, members should explicitly express the community's goal and establish guidelines and regulations. They will be able to see that they are all part of the same community and will be able to help one another once they have realized this. This community will be sustained if they recognize that they are all part of the same community and support one another. Second, there is a requirement for strong leaders. Leaders must take on the role as facilitators in addition to managing the community. Personal narrative is encouraged in the third principle. Personal narrative, according to Clark, is "the sun that causes communities to grow," since sharing experiences or viewpoints may bring people closer together and give them a sense of belonging. Furthermore, Downes (2020) emphasizes the need to create a feeling of commitment within learning communities. Members will be more willing to contribute their knowledge and personal experiences after they have gained confidence in the community. Downes also suggests various characteristics of effective learning communities, including course management, facilitator function, and student tasks. He suggests that content and communication be linked for course administration and that some participants be allowed to create content. Access to a variety of resources should also be available. In terms of the facilitator's role, he or she should share his or her enthusiasm with all members and participate in conversations. Furthermore, as a moderator between members and material, this facilitator should connect them. Students and members should develop trust in the community and form relationships with others in order to increase the quantity and quality of discussions.

Some guidelines for instructional design are provided on the website "principles of online design" (http://www.fgcu.edu/onlinedesign). It asserts that the instructor should have social connections with students in the instruction plan and provides an atmosphere for sharing, as well as utilizing some resources, such as e-mail or a discussion board, to boost engagement in order to promote an online learning community. It is also said that students are required to participate in conversations and communicate with others in online learning. Differding (n.d.) focuses on communication rather than course design in his online post "preparing students to join the online learning community." According to Differding, informal communication is permitted in a discussion to create one's individuality. He says that going right into the course material isn't essential right away. Instead, to "warm up" the mood, some room for casual conversation is required. Students must also identify themselves and discuss their own interests with others. Despite the fact that the purpose of the learning community is "learning," differing suggests that social interaction be strongly encouraged and that the instructor should design group projects to give students opportunities to engage in one task in order to increase peer interaction and common experiences. In other words, some scholars think that face-to-face interactions are crucial in online learning groups (Conrad, 2015; Palloff& Pratt, 2018; Edstrom, 2017). Meetings, they say, may motivate students and help them develop their social networks. In terms of the influence of communication format on online social presence, according to Tu (2015), email has the greatest degree of social presence, followed by real-time conversation, and then bulletin boards in text-based communication. To summarize, incentives are necessary to encourage students to participate in social interaction in an online learning community, which includes designed activities, face-to-face meetings, and the supply of appropriate online communication tools. It is possible to create an online learning community if all members are encouraged to eagerly participate in community activities.

F. Theoretical Framework

This study is based on the Online Collaborative Learning Theory by Yue Zhang, which uses peer-to-peer learning, also known as online groups, to help students improve their higher-order thinking, oral communication, self-management, and leadership skills. Collaborative learning is a method of teaching in which students of varying abilities work together in small groups to achieve a shared objective. Students are both accountable for each other's and their own learning (Gokhale, 1995). Online collaborative learning is an approach that shifts collaborative learning from face-to-face to online. Harasim (2012) established online collaborative learning theory (OCL) from foundations in computer-mediated communication and networked learning during the contemporaneous growth of both constructivist learning techniques and the Internet (Bates, 2015). OCL theory, according to Bates (2015), is based on and integrates cognitive development theories that focus on conversational learning, deep learning circumstances, academic knowledge progression, and knowledge creation. According to Harasim (2012), in OCL, students are encouraged to work together to solve issues rather than memorize correct answers, and the teacher or instructor plays a critical part in this process.

Teachers not only help students learn by providing suitable resources and learning activities, but they also function as members of the knowledge community being studied, ensuring that basic ideas, practices, and discipline norms are completely integrated into the learning cycle. Knowledge production through discourse is divided into three stages. The first is idea generation, which is the process of brainstorming or the phase of a group discussion where students express their thoughts and begin to generate a range of alternative viewpoints. The second stage is when students begin to interact with one another and reflect on what other students have shared. Intellectual convergence is the third type of convergence in which individuals actively participate in the co-construction of knowledge based on common understanding. For their stance on the issue, the group members combine their ideas and distinct points of view. This step consolidates the results, which might be given as an assignment, an essay, or other collaborative pieces of work. This theory relates to this study because it gives an idea of how students learn in online distance learning. This theory serves as the foundation of this study because in this research, the researchers are going to have a survey about the students' learning experiences, specifically about the students' overall learning process, the students' perception of the learning community, the students' perception of student support in online distance learning, and the benefits and barriers to online distance learning. This is applicable in our study because it discusses how the students learn collaboratively which implies to their learning experiences in online distance learning during COVID-19 pandemic.

G. Conceptual Framework

In Figure 1, the conceptual framework of the study depicts the variables as follows: the independent variable and the dependent variable. There is only one independent variable, which is online distance learning. On the other hand, the dependent variable is the learning experiences of Grade 12 STEM students.

The independent variable, online distance learning, is linked to the dependent variable, learning experiences of Grade 12 STEM students. The arrow pointing above indicates if there is a significant difference that exists between male and female respondents in their learning experiences. The conceptual framework is shown on the next page.

H. Conceptual Framework

Independent Variable   **Dependent Variable**
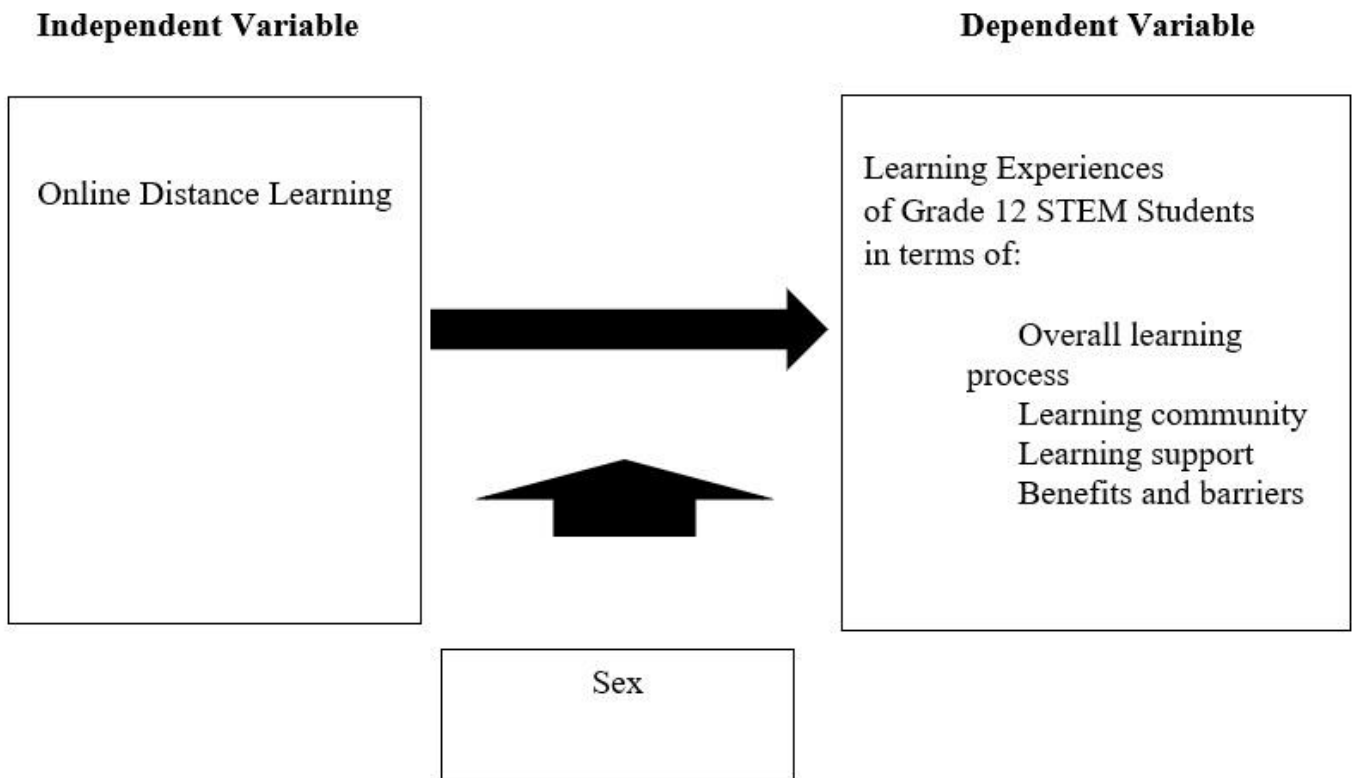
Figure 1: The Schematic Diagram of the Conceptual Framework

I. *Hypotheses*

- NULL HYPOTHESIS
  Ho_1: There is no significant difference in the overall learning experiences of the respondents in terms of sex.

- ALTERNATIVE HYPOTHESIS
  Ha_1: There is a significant difference in the overall learning experiences of the respondents in terms of sex.

I. *Hypotheses*

CHAPTER 2

METHODOLOGY

This chapter presents the methodology. It describes and explains the different procedures, including the research design, locale and respondents, sampling design, instrumentation, validity and reliability of the instrument, data gathering procedure, and statistical tools and treatment of the data.

A. Research Design

This study used a descriptive design. A descriptive design will be used to determine the students' learning experiences in online distance learning. As Creswell (2015) emphasized, descriptive research refers to scientific methodology in which observation of the sampled population is carried out in its natural surroundings. He also emphasizes that descriptive research methodology intends to find out "what" is related to a phenomenon. In this method, data is collected quantitatively and analyzed through a quantitative method.

The researchers chose descriptive research as the research method because it is the appropriate choice for this study. The research aims to identify the characteristics, frequencies, trends, and categories of the STEM 12 students at Notre Dame of Midsayap College. It is descriptive since the study uses a demographic profile in terms of age, sex, and section. It helps in deriving patterns, traits, and behaviors of respondents. It also aims to understand the attitudes and opinions that respondents hold about certain phenomena which is the learning experience in online distance learning.

B. Locale and Respondents

This study was conducted at the Senior High School Department of Notre Dame of Midsayap College, Poblacion 5, Midsayap, Cotabato. The respondents was enrolled as Grade 12 STEM students for the Second Semester, Academic Year 2021–2022. The respondents are composed of six sections: St. Nicholas, St. Jean, St. Teresa, St. Basil, St. Gabriel, and St. Catherine.

C. Sampling Design

The researchers used a purposive and convenient sampling technique. With this, the 6 sections of Grade 12 STEM students at Notre Dame of Midsayap College will be selected as the respondents of the study. The researchers chose the respondents based on their predetermined characteristics which is students who experienced or currently experiencing online distance learning, and the researchers will choose 20 respondents in each section. Since the situation limits our actions, the researchers will select the respondents in each section for convenience and easy retrieval of the survey questionnaire.

D. Instrumentation

They utilizied researcher-modified questionnaires. The researchers also took selected statements from the review-related literature to help in answering the statement of the problem. The researchers constructed a self-made online questionnaire in Google forms for the study and sent it to the respondents' Messenger accounts.

It is composed of two parts. Part 1 is the profile of the respondents, which includes name and sex. The second part of the instruments focused on the learning experience of the Grade 12 STEM students, specifically on the students' overall learning process, students' perception of the learning community, students' perception of student support in online distance learning, and the benefits and barriers to online distance learning. The measurement was rated on a scale from 1 to 5; 1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, and 5 = Strongly Agree.

E. Validity and Reliability of the Instrument

The questionnaire is submitted to the adviser and subject teacher for scrutiny. From the comments of the adviser and subject teacher, face and content validity were figured out. The pilot-testing was conducted at Notre Dame of Midsayap College. There were 35 students who served as respondents in pilot-testing the questionnaire. Cronbach Alpha was utilized to determine the reliability of the instrument, and it obtained an r-value of .933, which is indicative of a reliable instrument.

F. Data Gathering Procedure

The researchers will be using purposive and convenience sampling. The researchers chose the respondents based on their predetermined characteristics, and the researchers chose 20 respondents in each section for St. Nicholas, St. Basil, St. Jean, St. Teresa, St. Catherine, and St. Gabriel, for a total of 120 respondents. Since the situation limits our actions, the researchers will select the respondents in each section for convenience and easy retrieval of the survey questionnaire.

Before conducting a survey, the researchers will send a letter of permission to the Notre Dame of Midsayap College Senior High School principal and adviser. Once the SHS principal and adviser approve the request, the researchers will conduct pilot testing. After that, the researchers will create a Google form and send a link to conduct an online survey to the Grade 12 STEM students, to answer the research questions provided through their messenger accounts. Since this is the safest way to survey how the current situation is today.

The researchers will collect the data, and then the researchers will tabulate the results. It has been submitted to the statistician for further statistical analysis. The gathered data will be interpreted through descriptive statistics.

G. Statistical Analysis

First, to sum up the result of the profile of respondents, such as their sex frequency distribution and percentage were used. Second, the weighted mean and a standard deviation were used for the analysis of the data to determine the perception of Grade 12 STEM students' learning experiences in online distance learning.

Lastly, a t-test will be used for the analysis of the data to determine the significant difference in the perception of Grade 12 STEM students' learning experiences in online distance learning in terms of their sex. These statistical tools were used to describe and analyze the data obtained from the study.

CHAPTER 3

RESULTS

This chapter describes the analysis of data followed by an interpretation of the research findings. The findings relate to the research questions that guided the study. To complete this study, it is necessary to analyze the data collected to answer the research questions. As already indicated in the preceding chapter, data is interpreted in a descriptive form.

1. What is the demographic profile of the respondents in terms of their sex?

Profile of the Respondents		f	%
Sex			
Male		50	41.67
Female		70	58.33
	Total	120	100

Table 1: Demographic Profile of the respondents

Table 1 presents the frequency and percentage distribution of one hundred twenty respondents according to sex. 41.67 percent are male and 58.33 percent are female.

2. What was the students' overall learning process in online distance learning?

Learning Processes	Mean	Sd	Description
1. I am able to manage my study time and easily complete assignments on time.	3.65	0.88	Agree
2. I prepare myself before synchronous classes.	3.61	1.08	Agree
3. I put my time into studying according to my class schedule.	3.47	1.08	Neutral
4. I was encouraged to take responsibility for my own learning.	4.00	0.85	Agree
5. I was able to work through the subject material at my own pace.	3.91	0.91	Agree
6. It was easy to navigate the subject learning material	3.63	0.84	Agree
7. The face-to-face resource sessions were valuable when supplemented with online learning	3.68	0.81	Agree
8. Electronic communication with the subject lecturer was useful	3.78	0.79	Agree
Overall	3.72	0.90	Agree

Table2: Students' overall learning process in online distance learning

Scale	Range	Description
1	1.00 – 1.49	Strongly disagree
2	1.50 – 2.49	Disagree
3	2.50 – 3.49	Neutral
4	3.50 – 4.49	Agree
5	4.50 – 5.00	Strongly agree

3. What was the students' perception of the learning community in online distance learning?

B. Students' Perception	Mean	Sd	Description
1. Notre Dame of Midsayap College provides instructional video how to use the learning management system (Schoology)	3.94	0.89	Agree
2. I participate when the teachers provide discussion boards for the students' interaction. (Online kamustahan).	3.93	0.88	Agree
3. I felt part of a group of students and teachers committed to learning.	3.81	0.84	Agree
4. I was able to explore academic interests with teachers and students.	3.74	0.94	Agree
5. I learned to explore ideas confidently with other students.	3.67	1.02	Agree
6. Students' ideas and suggestions were used during the classes.	3.89	0.89	Agree
7. I felt I belonged to the school community.	3.80	0.93	Agree
Overall	3.83	0.91	Agree

Table 3: Students' perception of the learning community in online distance learning

Scale	Range	Description
1	1.00 – 1.49	Strongly disagree
2	1.50 – 2.49	Disagree
3	2.50 – 3.49	Neutral
4	3.50 – 4.49	Agree

Table 3 shows the overall mean score of 3.83 it is the Agree. This indicates that the respondents "Agree" in perception of the learning community in online distance learning. It revealed that item 1 was the result of the highest rating, it states, Notre Dame of Midsayap College provides instructional video how to use the learning management system (Schoology), with a mean of 3.94 described as "Agree" with an Sd of 0.89. The lowest mean, 3.67 is on item 5, which states, I learned to explore ideas confidently with other students with an Sd of 1.02.

4. What was students' perception of student support in online distance learning?

B. Students' Perception	Mean	Sd	Description
1. I am motivated even though I am trying to balance academics and family obligations	3.69	0.94	Agree
2. I consulted the guidance counselor to ask for advice.	2.56	1.21	Neutral
3. I am attending everytime there is a webinar for the students.	4.06	0.97	Agree
4. My parents provide me with gadgets such as (smart phone, laptop, and wifi) to use for online distance learning.	4.36	0.88	Agree
5. The institution monitors our needs through surveys in order to inform the planning of support services for e-learners.	3.60	1.03	Agree
6. I was able to access IT (such as Chromebook/iPad) resources when I needed them.	3.54	1.10	Agree
7. I was satisfied with the course and career advice provided.	3.72	0.91	Agree
8. Relevant learning resources (eTextbook, database, software) were accessible when I needed them.	3.79	0.84	Agree
Overall	3.66	0.98	Agree

Table 4: Students' perception of students' support in online distance learning

Scale	Range	Description
1	1.00 – 1.49	Strongly disagree
2	1.50 – 2.49	Disagree
3	2.50 – 3.49	Neutral
4	3.50 – 4.49	Agree
5	4.50 – 5.00	Strongly agree

Table 4 shows the overall mean score of 3.66 it is the Agree. This indicates that the respondents "Agree" in perception of students' support in online learning. It revealed that item 4 was the result of the highest rating. It states, "My parents provide me with gadgets such as (smart phone, laptop, and wifi) to use for online distance learning", with a mean of 4.36 described as "Agree" with an Sd of 0.88. The lowest mean, 2.56 is on item 2, which states, I consulted the guidance counselor to ask for advice with an Sd of 1.21.

5. What were the benefits and barriers during online distance learning?

B. Benefits and Barriers	Mean	Sd	Description
1. Convenience in studying.	3.72	0.81	Agree
2. Access to information and learning material.	3.88	0.81	Agree
3. Opportunities to interact with teachers.	3.48	0.93	Neutral
4. Opportunities to interact with classmates.	3.63	1.00	Agree
5. I have time to study since it is different from the face-to-face set-up.	3.73	1.00	Agree
6. I learn better through online classes compared to face to face classes.	2.86	1.22	Neutral
1. I experience inadequate opportunity to study with other classmates.	3.53	0.93	Agree
2. I experience inadequate opportunity to discuss with teachers.	3.59	0.97	Agree
3. I experience inadequate opportunity to establish peer support.	3.48	0.95	Neutral
4. I experience difficulty applying concepts taught in the subject.	3.69	0.92	Agree
5. I experience unstable internet connection during online classes.	4.11	0.94	Agree
6. I experience distraction at home during my online classes	4.13	0.89	Agree
7. I experience problems in submitting my tasks and activities.	3.73	1.01	Agree
Overall	3.66	0.95	Agree

Table 5: Benefits and barriers during online distance learning

Scale	Range	Description
1	1.00 – 1.49	Strongly disagree
2	1.50 – 2.49	Disagree
3	2.50 – 3.49	Neutral
4	3.50 – 4.49	Agree
5	4.50 – 5.00	Strongly agree

Table 5 shows the overall mean score of 3.66 it is the Agree. This indicates that the respondents "Agree" with the benefits and barriers during online distance learning. It revealed that item 6 was the result of the highest rating. It states, I experience distraction at home during online class, with a mean of 4.13 described as "Agree" with an Sd of 0.89. The Lowest mean, **2.86** is on item **6**, which states I learn better through online classes compared to face to face classes with an Sd of 1.22.

6. Is there a significant difference in the overall learning experience of the respondents in terms of sex?

Sex	N	Mean	SD	df	p - value	Decision
Male	50	3.70	0.52	118	0.98	NS
Female	70	3.70	0.51			

NS – Not Significant at 0.05 level of significance

Findings revealed a p-value of 0.98 concluding that there is no significant difference between the groups.

CHAPTER 4

DISCUSSION

This chapter discuss the results of the statistical treatment of the data and its interpretation. This section also presents the summary of findings, conclusions, and recommendations.

Demographic profile of the respondents in terms of sex

As reflected in the findings of the study, most of the respondents are female which covers 58.33% which composed of 70 female students and only 41.67% are male which composed 50 male students. Data results are gathered regardless of sex. The result of the study contradicts conducted by Glimartin and Bryant (2003) that some investigations of online survey response behaviour, in contrast to traditional surveys, men respond to web-based surveys in greater proportions than women.

Students' overall learning process in online distance learning

Table 2 shows the overall mean score of 3.72 it is the Agree. This indicates that the respondents "Agree" in learning process in online distance learning. The statement with the highest mean stated that "I was encouraged to take responsibility for my own learning.", with a mean of 4.00 described as "Agree" with an Sd of 0.85. This implies that the majority of the respondents are aware, and agree that they take responsibility of their own learning. This supports the study conducted by Nader, A and Tanju, D (2019) which suggests that most students believe that they have more responsibility for their own learning. Nader, A and Tanju, D's study found that by taking responsibility, students will be able to get a better idea of what they are best at.

This however, the lowest mean, 3.47 is on item 3, which states, "I put my time into studying according to my class schedule" with an Sd of 1.08. A study conducted by Stetson University (2018) concluded that planning enough time for studying each subject will help the students to remember and understand more the topics discussed in each subject.

Students' perception of the learning community in online distance learning

Table 3 shows the overall mean score of 3.83 it is the Agree. This indicates that the respondents "Agree" in perception of the learning community in online distance learning. It revealed that item 1 was the result of the highest rating, it states, Notre Dame of Midsayap College provides instructional video how to use the learning management system (Schoology), with a mean of 3.94 described as "Agree" with an Sd of 0.89. It indicates that the institution provides instructional video how to use the learning management system (Schoology). The use of videos in teaching and learning serves to not only benefit students, but also teachers, their affiliated institutions, and the entire school system. A 2015 study conducted by software company Kaltura concluded that 93% of students believe that the use of instructional video how to use the learning management system improves the learning experience.

As a result, educational institutions are faced with the task of meeting the rising demand for quality learning videos, online course offerings, and campus accessibility. Indeed, many are choosing to create their own instructional video learning materials.

The lowest mean, 3.67 is on item 5, which states, I learned to explore ideas confidently with other students with an Sd of 1.02. This further supports the study conducted by Dalgety, J., & Coll, R. K. (2006). It appears that students are less confident in skills such as tutoring and discussing with other students.

Students' perception of students' support in online distance learning

The results of the data in the table 4 shows that the overall mean score of 3.66 it is the Agree. This indicates that the respondents "Agree" in perception of students' support in online learning. It revealed that item 4 was the result of the highest rating. It states, "My parents provide me with gadgets such as (smart

phone, laptop, and wifi) to use for online distance learning", with a mean of 4.36 described as "Agree" with an Sd of 0.88. This implies that the majority of students agreed that they have been provided with gadgets by their parents. A study by Karim &Hartati (2020), and Bader &Fouts (2019) stated that the parents provided gadgets for their children because it could help in their education and entertainment. Another reason was that parents found it easier to communicate and maintain relationships with their children (Thakur et al., 2016; Stošić& Stošić2015; and De Lima &Castronuevo, 2016). This also supports the study conducted by Suzana S et al (2020) which suggests that parents provided gadgets for their children to use to help their education and entertainment. Another reason was that parents found it easier to communicate and maintain relationships with their children. In this case, the uses and gratification theory has developed, especially in gratification, which is often used as a core theory in the study of media use.

However, the lowest mean which states, "I consulted the guidance counselor to ask for advice.", with a mean of 2.56 described as "Neutral" and with an Sd of 1.21. This implies that the majority of students are neutral when it comes to consulting the guidance counselor to ask for advice. A study by Jenny Lukito Setiawan (2006) Willingness to seek counselling found that counselling help is not a popular choice among students. The studies have consistently found that family members and friends are those mostly selected for help.

Benefits and barriers during online distance learning

Table 5 shows the overall mean score of 3.66 it is the Agree. This indicates that the respondents "Agree" with the benefits and barriers during online distance learning. It revealed that item 6 was the result of the highest rating. It states, I experience distraction at home during online class, with a mean of 4.13 described as "Agree" with an Sd of 0.89. It indicates that most respondents experience distraction at home during online class. This supports the study conducted by Hussein, E., Daoud, S., Alrabaiah, H., & Badawi, R. (2020). It states that showed that almost 47% of the respondents found this mode ineffective because they get distracted so easily because of the comfortable environment they are in. They also prefer face to face classes because they can focus more in this learning format.

However, the lowest mean which states, "I learn better through online classes compared to face to face classes.", with a mean of 2.86 described as "Neutral" and with an Sd of 1.22. This implies that the majority of students are neutral when it comes through learning online compared to face-to-face classes. A study by Russel (2001) a majority of his research indicates no statistically significant differences existed in student outcomes based on delivery mode. Clark (1994) stated that it was the teaching methods and not the delivery medium used that influenced learning.

Significant difference in the overall learning experiences of the respondents in terms of sex

Based on the correlational findings of the study, the researchers have determined that there is no significant difference in the overall learning experiences of the respondents in terms of sex. Based on the p-value of 0.98 which not significant at 0.05 level of significance. It implies that the null hypothesis is accepted since there is no significant difference in the overall learning experiences of the respondents in terms of sex.

Overall, the idea is supported by the study of Yu, Z (2021). Females had stronger self-regulation than males, which also led to their significantly more positive online learning outcomes than males (Alghamdi et al., 2020). However, no significant gender differences were revealed in leaning outcomes because males were more stable in attitudes, while females performed well in engagement (Nistor, 2013). Furthermore, no significant gender differences in learning outcomes were found based on learning styles. There were also no significant gender differences in the learning satisfaction of online millennial learners (Harvey et al., 2017).

Summary of the findings

Based on the data gathered, majority of the respondents were female. On the interpretation of the data, it was revealed that majority of the respondents are agree to the statements asked about the students' learning

experiences, specifically about the students' overall learning process, the students' perception of the learning community, the students' perception of student support in online distance learning, and the benefits and barriers to online distance learning.

Lastly, findings reveal that there is no significant difference in the overall learning experiences of the respondents in terms of sex.

CHAPTER 5

CONCLUSIONS

The findings of the study, the following conclusions were drawn:

- Based on the data gathered, majority of the Grade 12 STEM students who answered the survey were female.
- Majority of the Grade 12 STEM students agreed to the statements regarding the students' overall learning process.
- Majority of the Grade 12 STEM students agreed to the statements regarding the students' perception of the learning community.
- Majority of the Grade 12 STEM students agreed to the statements regarding the students' perception of student support in online distance learning.
- Majority of the Grade 12 STEM students agreed to the statements regarding the students' perception of the benefits and barriers to online distance learning.
- Study revealed that there is no significant difference in the overall learning experiences of the respondents in terms of sex.

CHAPTER 6

RECOMMENDATIONS

Based on the findings and conclusions of the study, the following are recommended:
- Further study on the students' learning experiences in online distance learning.
- To further gather more data about the students' learning experiences.
- To use the data gathered for further research about the said topic.
- The survey is better conducted in a face-to-face setting to ensure the prevention of mockery from the respondents.

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Reliability Statistics

Cronbach's Alpha	N of Items
.933	36

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
VAR00001	130.8824	291.077	.675	.930
VAR00002	130.8529	290.796	.614	.930
VAR00003	131.2059	290.290	.590	.930
VAR00004	130.4118	299.522	.481	.932
VAR00005	130.7059	298.153	.487	.932
VAR00006	131.0588	294.421	.576	.931
VAR00007	130.7941	297.259	.632	.931
VAR00008	130.7941	294.835	.651	.930
VAR00009	130.5294	290.439	.642	.930
VAR00010	130.5588	291.284	.626	.930
VAR00011	130.7941	284.290	.861	.928
VAR00012	130.6765	291.983	.696	.930
VAR00013	130.7059	287.790	.802	.928
VAR00014	130.6176	286.061	.832	.928
VAR00015	130.8235	289.604	.656	.930
VAR00016	130.5882	299.037	.617	.931
VAR00017	131.5294	301.711	.259	.934
VAR00018	130.7059	290.396	.632	.930
VAR00019	130.4118	294.856	.602	.931

VAR00020	130.9118	293.719	.636	.930
VAR00021	131.1471	295.099	.397	.933
VAR00022	130.5882	298.492	.463	.932
VAR00023	130.8529	290.129	.712	.929
VAR00024	130.7647	295.155	.648	.930
VAR00025	130.7059	304.638	.302	.933
VAR00026	131.0882	291.477	.531	.931
VAR00027	130.7059	297.608	.394	.933
VAR00028	130.4706	295.832	.534	.931
VAR00029	131.6471	305.872	.129	.936
VAR00030	130.8529	302.190	.334	.933
VAR00031	130.7647	299.398	.374	.933
VAR00032	130.8824	301.622	.351	.933
VAR00033	130.8529	303.705	.279	.933
VAR00034	130.2353	304.246	.262	.934
VAR00035	130.6176	302.486	.234	.935
VAR00036	130.7941	298.168	.334	.934

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
134.5294	312.196	17.66907	36

APPENDICES

Research title: "A Survey on Grade 12 STEM Students' Learning Experiences in Online Distance Learning"

The researchers made a questionnaire. The researchers took selected statements from the review-related literature to help in answering the statement of the problem. It is composed of two parts. Part 1 is the profile of the respondents which includes age, sex, and section. The second part of the instruments focused on the learning experience in online distance learning of the Grade 12 STEM students.

Dear Respondents,

We, the students of STEM 12- St. Catherine of Sienna is currently gathering data for our research entitled "A Survey on Grade 12 STEM Students' Learning Experience in Online Distance Learning". You are highly encouraged to participate in this survey to discern the students' learning experiences, specifically on the students' overall learning process, students' perception of the learning community, students' perception of student support in online distance learning, and the benefits and barriers during online distance learning.

Rest assured that all information collected in this survey will be kept with utmost confidentiality. We ought that all of the information collected will be used for academic purposes and the objectives of this research only. Please do not hesitate to contact the researchers if you have questions about this survey.

We would like to express our gratitude in advance for your participation and assistance in fulfillment of our research.

Sincerely yours,

JeloRedoble

Research Leader

Part I: The Demographic Profile of the Respondents

Name [   ]

1. Sex
◯ Male   ◯ Female

Part II: The Learning Experience in Online Distance Learning of the Grade 12 STEM Students.

Likert Scale	Description
(5) Strongly agree	Choose if you completely agree with the statement. (Very positive)
(4) Agree	Choose if you agree with the statement. (Positive)
(3) Neutral	Choose if you neither agree nor disagree with the statement. (Moderate)
(2) Disagree	Choose if you disagree with the statement. (Negative)
(1) Strongly Disagree	Choose if you completely disagree with the statement. (Very negative)

a. **Overall Learning Process**
   Please indicate your agreement degree with the following statements.

5 = Strongly Agree   4 = Agree   3 = Neutral   2 = Disagree   1 = Strongly Disagree

Questions	5	4	3	2	1
1. I am able to manage my study time and easily complete assignments on time.					
2. I prepare myself before synchronous classes.					
3. I put my time into studying according to my class schedule.					
4. I was encouraged to take responsibility for my own learning.					
5. I was able to work through the subject material at my own pace.					
6. It was easy to navigate the subject learning material					
7. The face-to-face resource sessions were valuable when supplemented with online learning					
8. Electronic communication with the subject lecturer was useful					

b. **Perception of learning community**

   Please indicate your agreement degree with the following statements about your study support.

5 = Strongly Agree   4 = Agree   3 = Neutral   2 = Disagree   1 = Strongly Disagree

Questions	5	4	3	2	1

1. Notre Dame of Midsayap College provides instructional video how to use the learning management system (Schoology)					
2. I participate when the teachers provide discussion boards for the students' interaction. (Online kamustahan).					
3. I felt part of a group of students and teachers committed to learning.					
4. I was able to explore academic interests with teachers and students.					
5. I learned to explore ideas confidently with other students.					
6. Students' ideas and suggestions were used during the classes.					
7. I felt I belonged to the school community.					

c. Perception of student support

Please indicate your agreement degree with the following statements about your study support.

5 = Strongly Agree   4 = Agree   3 = Neutral   2 = Disagree   1 = Strongly Disagree

Questions	5	4	3	2	1
1. I am motivated even though I am trying to balance academics and family obligations					
2. I consulted the guidance counselor to ask for advice.					
3. I am attending everytime there is a webinar for the students.					
4. My parents provide me with gadgets such as (smart phone, laptop, and wifi) to use for online distance learning.					
5. The institution monitors our needs through surveys in order to inform the planning of support services for e-learners.					
6. I was able to access IT (such as Chromebook/iPad) resources when I needed them.					
7. I was satisfied with the course and career advice provided.					
8. Relevant learning resources (eTextbook, database, software) were accessible when I needed them.					

d. Benefits and barriers during online distance learning

● **Benefits during online distance learning**

5 = Strongly Agree   4 = Agree   3 = Neutral   2 = Disagree   1 = Strongly Disagree

For my remote learning, I am satisfied with . . .

Questions	5	4	3	2	1
1. Convenience in studying.					
2. Access to information and learning material.					
3. Opportunities to interact with teachers.					
4. Opportunities to interact with classmates.					
5. I have time to study since it is different from the face-to-face set-up.					
6. I learn better through online classes compared to face to face classes.					

● **Barriers during online distance learning**

5 = Strongly Agree   4 = Agree   3 = Neutral   2 = Disagree   1 = Strongly Disagree

What are your learning hindrances with remote learning?

Questions	5	4	3	2	1
1. I experience inadequate opportunity to study with other classmates.					
2. I experience inadequate opportunity to discuss with teachers.					
3. I experience inadequate opportunity to establish peer support.					
4. I experience difficulty applying concepts taught in the subject.					
5. I experience unstable internet connection during online classes.					
6. I experience distraction at home during my online classes					
7. I experience problems in submitting my tasks and activities.					