

Short Paper

# Senior High School Self-Directed Learning amid COVID-19 Pandemic: An Assessment

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## Abstract

The outbreak of COVID-19 affected the educational sector worldwide. The education that usually takes place in schools had to be conducted from a distance because of the pandemic. Hence, a lot of responsibilities were given to teachers, parents, students, and other stakeholders. This paper assessed the process and outcomes of self-directed learning of the students during this time of the pandemic. The researchers of this study used the questionnaire from the PISA global crises questionnaire module and utilized a survey in gathering the data. Based on the results of the study, the majority of senior high school students used a smartphone as a digital device for school work. The majority of the respondents said they had "a few times" when it comes to the problems encountered in self-directed learning. Furthermore, there were recorded school actions/activities to sustain learning but the majority of the senior high school students said they learned less when the school building was closed. The researchers of this study recommended that the schools must apply different learning modalities based on the needs of the students. The schools must implement solutions to the problems encountered by the students in self-learning and more activities to sustain learning. Additionally, the stakeholders must work together to help the students in this time of the pandemic, and more research on self-directed learning using other variables must be done.



## INTRODUCTION

The outbreak of COVID-19 affected all the sectors worldwide. Sad to say, one of the sectors affected is education. According to United Nations (2020), the COVID-19 pandemic has created the largest disruption of education systems in history which affected nearly 1.6 billion learners in more than 190 countries worldwide. Moreover, the closures of schools and other learning spaces have impacted 94% of the world's student population, up to 99% in low and lower-middle-income countries. The United Nations (2020) also added that the crisis due to the COVID-19 pandemic is exacerbating pre-existing education disparities by reducing the opportunities for many of the most vulnerable children, youth, and adults especially those living in poor or rural areas, girls, refugees, persons with disabilities and forcibly displaced persons – to continue their learning. Indeed, these reports are alarming.

In the report of Handog (2020) of Rappler, in the Philippines, the reopening of classes (S.Y.2020-2021) despite the pandemic has been the subject of debates for many. Some are pushing for the education sector to skip this school year so that no student gets left behind while many parents are also still willing to try how remote learning is going to work. Moreover, remote learning indeed shows a lot of challenges for many Filipino students. Furthermore, buying a laptop, computer, or even a tablet or mobile phone plus securing an internet connection is not something that all Filipino parents can easily provide for their children no matter how much they would like to. Thus, learning in the middle of the pandemic is a big problem for poor Filipinos. Meanwhile, in the report of Simeon (2021) of Philippine Star, based on the report of the World Bank, the COVID-19 pandemic will push more children into learning poverty, specifically for low and middle-income countries like the Philippines because of the prolonged closure of schools. This means that educational institutions must do solutions in the sense that even if the schools are closed, education must continue.

Indeed, changes in the learning system are happening. Along with the implementation of different learning modalities, there are positive learning experiences reported. Because of this pandemic, the Department of Education applied so many efforts to give sustainable learning. Students had to rely more on their own to continue learning through the help of the internet, radio, television, and other sources of information and the assistance of parents, teachers, and other stakeholders. Meaning, that students are doing self-directed learning. Self-directed learning means allowing the Senior High School students to take charge of their learning. They have the freedom of choice to plan, use available learning resources, and use learning strategies in the middle of the COVID-19 pandemic.

The education that usually takes place in schools had to be conducted from a distance because of the pandemic. Education must continue, therefore, a lot of responsibilities were given to teachers, parents, and students. Truly, this pandemic has exposed so many inadequacies and inequities in the education sector like access to the internet and digital devices which are much needed in this present education, and the supportive learning environments that are needed to focus on learning and additionally the misalignment between resources and needs.

The purpose of this study was to assess the process and outcomes of self-directed learning of the students during this time of the pandemic. This study was done to be able to determine the available digital device used by the students, their encountered problems along with self-directed learning, the actions or activities taken by the schools to sustain learning, and the students' subjective impression during the closure of the school. Furthermore, this study was also done to be able to do actions to the results of the study.

## **LITERATURE REVIEW**

With the outbreak of COVID-19, students were forced to study remotely to follow the global stay-at-home order. In the study conducted by Kaisara and Bwalya (2020), mobile devices served as the primary device used to access academic information. This finding is somehow similar to the result of the study by Vargo, Zhu, Benwell, and Yan (2020) that educators and students choose to use video-based devices and platforms to continue their education. They are becoming the second largest group of digital technology users during the pandemic. According to Bacolod (2022), the rapid increase of mobile devices and web technology increases the possibilities for supporting mobile learning in the middle of a pandemic. Furthermore, students became more familiar with the use of the mobile phone in the teaching-learning process. These are strong pieces of evidence that learning is not limited to face-to-face classes. Digital technology serves as a tool for learning especially during this time of the pandemic.

As mentioned in the work of Wijaya, Ying, and Suan (2020), self-directed learning is defined as the independent process of taking driven actions without the help of others, making learning goals, making learning manpower and material resources, selecting and implementing appropriate learning strategies, and assessing learning outcomes (Wongsri, Cantwell, & Archer, 2002). However, students encountered problems in self-directed learning. As mentioned in the work of Adnan and Anwar (2020), it was a prompting of the lack of resources in different academic institutions and the marginalized students, where insufficient access and availability of the internet and the lack of latest technology affected organizational responsiveness and students' capacity to participate in learning (Zhong, 2020). This means that practicing self-directed learning has disadvantages, especially for poor students.

In the work of Jimenez (2020), many schools face a lot of challenges regarding how to operate efficiently and safely for the school year 2020-2021. Moreover, she concluded that before students can learn, their well-being, engagement, and conditions for learning must be addressed, and to do so, schools must collect these data to inform how they should respond to the challenges raised by the COVID-19 pandemic. On the other hand, schools must be ready in addressing the challenges brought by the pandemic to cater to the needs of the students. According to Rivera and Tanghal (2021), during this time of the COVID-19 pandemic, a big change in the teaching and learning process had to be embraced by educational sectors. Meaning, that educational sectors must be flexible enough in the present situation. Educational sectors need to apply contingency plans to provide quality education even in the middle of a pandemic. Meanwhile, in the study conducted by Chiu (2022), during the school closures because of the COVID-19 pandemic, remote or online learning has been adopted to help students continue to learn.

Despite having the COVID-19 pandemic and its effect on education, still, different schools applied actions or activities for sustainable learning. According to Noor, Isa, and Mazhar (2020), the creativity, dedication, and community spirit which the school teachers demonstrated in working with very limited facilities were exceptional during the time of the pandemic. With regards to education, important things to do are prayer, partnership with families, personalization, persistence, and planning (Boyle, et al., 2020). As concluded by Scott (2020), many schools were able to accomplish what some thought unworkable like keeping students engaged and learning without stepping inside of the school. These are some of the pieces of evidence that schools applied actions or activities for sustainable learning.

The new normal set-up of learning which is seen by shifting from the traditional face-to-face learning to different learning modalities earns different views, especially for the students. According to Nenko, Kybalna, and Snisarenko (2020), distance learning has become an essential part of everyday life of most students during quarantine, there is little evidence regarding its effectiveness among students. They revealed that there are factors affecting the students, namely, distance learning tools, duration of learning, types of leisure activities, the readiness of the students for distance learning, and other factors that affect distance learning like skills, internet speed, emotions, and others.

According to Durak and Çankaya (2020), with the COVID-19 pandemic, distance education applications started. The students had positive and negative views on the education system like communication with the teacher, getting feedback, socialization, motivation, academic performance, and comparison with the traditional teaching. With the different findings of the researchers mentioned above, there are many factors affecting the outcomes of this new set-up of learning.

The aforementioned studies discussed the effects of the COVID-19 pandemic in the educational sector. The studies also discussed how the students are learning, their problems encountered in learning during this time of the pandemic, and the actions or steps done by the stakeholders in continuing education. This study, like the ones cited, was conducted to be able to improve the learning outcomes of the students during this time of the pandemic. However, no local study has been conducted to determine the

learning of the students amid the COVID-19 pandemic. These are the gaps that this present study bridged.

## **RESEARCH QUESTIONS**

The researchers of this study aimed to determine the learning of the students amid the COVID-19 pandemic. Specifically, it answered the following questions:

1. What available digital device is used by the students for school work?
2. What are the problems encountered by the students in self-directed learning?
3. To what extent do schools take actions/activities to sustain learning?
4. What is students' subjective impression of learning during the closure of school?

## **METHODOLOGY**

This study employed a quantitative technique since the questions posed were answered by numerical data. Specifically, it utilized a survey. The subjects of the study were selected senior high school academic and TVL students of Juban National High School in Juban, Sorsogon, and J.P. Laurel High School in Bulan, Sorsogon. The researchers applied convenient sampling in selecting the respondents. One hundred respondents participated in the study. The researchers used the questionnaire from the PISA global crises questionnaire module. The adopted questionnaire underwent a reliability test and content validation. The adopted questionnaire was part of the questionnaires tackling the students' learning experiences in this time of pandemic that were collaboratively made by PISA policymakers, educators, and researchers (Bertling, Rojas, Alegre, & Faherty, 2020). Furthermore, the researchers of this study recognized and cited the work in which the questionnaire was adopted. The research questionnaire was distributed online to the students who were residing at the places with COVID-19 cases while a printed questionnaire was given to the students who were residing in areas with no COVID-19 cases. After the data gathering, the researchers tallied the results. The researchers applied percentages in analyzing the data gathered. Moreover, other researchers' papers were used to further explain the results.

## **RESULTS AND DISCUSSION**

### **AVAILABLE DIGITAL DEVICE USED BY THE STUDENTS FOR SCHOOL WORK**

Students are willing to embrace the use of smartphones in their learning. Even economically disadvantaged students can access smartphones though they may not have access to other gadgets like laptops and internet connections in their homes (Miller, 2018). During the closure of the school, 80% of senior high school students used their smartphones for school work. However, 11% of the senior high students used a digital device that was also used by other family members. The senior high school students who did have any digital device for school work comprised 6%. Moreover, 2% of the senior high

school students used their laptop, desktop computer, or tablet and 1% used a digital device that the school gave or lent for school work.

A cellular phone is very common nowadays and its utilization varies in every walk of life. Among senior high school students, most of the students own cellular phones (Lim & Moneva, 2018). Moreover, the use of smartphones is gradually becoming a compelling learning tool used to enhance teaching and learning in distance education. Hence, its usage ensures flexible course delivery and makes it possible for students to access different online learning platforms, access course resources, and interact in a digital world (Darko-Adjei, 2019).

Based on the findings of the researchers of this study and the findings of the aforementioned researchers, the majority of the students often used smartphones for school work. On the other hand, mobile technology is becoming universal in today's society (Ally & Wark, 2018). However, the consideration and giving attention to those students who do not have or have a problem finding digital devices for school work are needed. Table 1 summarizes the digital device often used by the students for school work during the closure of school because of COVID-19.

Table 1. Type of digital device used by the students for school work

<b>A digital device used by the students</b>	<b>Percentage</b>
1. My laptop, desktop computer, or tablet.	2 %
2. My smartphone.	80 %
3. A digital device that was also used by other family members.	11%
4. A digital device that my school gave or lent me.	1%
5. I did not have any digital device for my school work.	6%

## **PROBLEMS ENCOUNTERED BY THE STUDENTS IN SELF-DIRECTED LEARNING**

Face-to-face learning engagement of students and teachers within the school has been suspended due to the spread of COVID-19 (Dangle & Sumaong, 2020). Due to this pandemic, the Department of Education implemented different learning modalities to ensure the continuity of education. Despite the efforts made by the Department of Education, there are problems encountered by the students in self-directed learning and these problems are normal in this kind of learning situation.

The following were the highlights of the findings relative to the problems encountered by the students in self-directed learning. The majority of the respondents which comprised 52% had a few times referred to problems with access to a digital device when needed. Meanwhile, 56% of the respondents said they had a few times concerning problems with internet access. Whereas, 41% of the respondents said they had a few times in connection with problems with access to school supplies while 47% of the

respondents said they had a few times relative to problems with finding a quiet place to study.

Furthermore, 45% of the respondents said they had a few times concerning finding time to study because of household responsibilities while 51% of the respondents said they had a few times in line with problems with motivating themselves to do school work. Moreover, 59% of the respondents said they had a few times in connection with problems with understanding their school assignments while 47% of the respondents said they had a few times concerning problems with finding someone who could help them with their school work.

Table 2. Problems with self-directed learning

STATEMENTS	Never	A Few Times	About Once or Twice a Week	Every Day or Almost Every Day
1. Problems with access to a digital device when I needed it.	19%	52%	20%	9%
2. Problems with internet access.	6%	56%	19%	19%
3. Problems with access to school supplies.	39%	41%	18%	2%
4. Problems with finding a quiet place to study.	21%	47%	20%	12%
5. Problems with finding time to study because I had household responsibilities.	8%	45%	24%	23%
6. Problems with motivating myself to do school work.	21%	51%	25%	3%
7. Problems with understanding my school assignments.	11%	59%	25%	5%
8. Problems with finding someone who could help me with my school work.	28%	47%	19%	6%

Overall, the majority of the respondents said they had "a few times" when it comes to the stated problems encountered in self-directed learning. Still, the Department of Education should consider the stated problems wherein students are struggling every day or almost every day. Truly, education is one of the sectors greatly affected by the

COVID-19 pandemic. Table 2 summarizes the problems encountered by the students in self-directed learning.

### **SCHOOL ACTIONS/ACTIVITIES TO SUSTAIN LEARNING**

As the pandemic arises, there are changes fulfilled to adapt to the situation. One of the changes in the operation of the learning system is how students can learn (Quimio, Mercado, Obligar, & Angeles, 2021). The following were the highlights of the findings in connection with the school actions/activities to sustain learning. Majority of the respondents which comprised 47% said a few times the school sent learning materials to study on their own while 53% of the respondents said a few times the school sent assignments. In terms of uploading material on learning management like Edmodo and Facebook page, 37% of the respondents said never and another 37% said a few times.

Furthermore, 43% of the respondents said that a few times the school checked them to ensure that they were completing their assignments while 75% of the respondents said that the school never offered live virtual classes on a video communication program like Zoom, Skype, Google Meet, and Microsoft Teams Moreover, 35% of the respondents said a few times the school asked them to submit completed school assignments.

Additionally, 52% of the respondents said a few times the school gave them helpful tips about how to study on their own while 40% of the respondents said a few times the school checked in with them to ask how they were feeling. These results were also affected by the main learning modality applied by the schools which was modular (print) learning. According to Mahapatra and Sharma (2021), the COVID-19 pandemic created an unusual crisis for students as well as educators regarding the continuation of educational services, conducting assessments, and catering to the needs of special education and vocational rehabilitation.

According to Lepp, Aaviku, Leijen, Pedaste, and Saks (2021), teachers' teaching-related decisions were influenced by different factors that were related to the existence of digital tools as well as the ability to use them purposefully in the home settings of teachers and students. Additionally, the teachers' decisions were mostly motivated by short-term goals. Examples are maintaining students' social interaction and more broadly, supporting student motivation in this time of the pandemic. Furthermore, the desire of teachers to keep students and teachers' workloads affordable was also considered a factor influencing teachers' teaching-related decisions. On the other hand, school actions/activities to sustain learning are much needed in this time of the pandemic. Table 3 summarizes the school actions/activities to sustain learning.

Table 3. School actions/activities to sustain learning

STATEMENTS	Never	A Few Times	About Once or Twice a Week	Every Day or Almost Every Day
1. Sent you learning materials to study on your own.	13%	47%	28%	12%
2. Sent you assignments.	9%	53%	27%	11%
3. Uploaded material on a learning management (e.g. Edmodo, Facebook page, Google classroom, etc.)	37%	37%	24%	2%
4. Checked in with you to ensure that you were completing your assignments.	18%	43%	25%	14%
5. Offered live virtual classes on a video communication program (e.g. Zoom, Skype, Google Meet, and Microsoft Teams).	75%	17%	8%	0%
6. Asked you to submit completed school assignments.	11%	35%	29%	25%
7. Gave you helpful tips about how to study on your own.	12%	52%	22%	24%
8. Checked in with you to ask how you were feeling.	25%	40%	25%	10%

### **STUDENTS' SUBJECTIVE IMPRESSION OF LEARNING DURING THE CLOSURE OF SCHOOL**

According to Koçoğlu and Tekdal (2020), the COVID-19 pandemic negatively affected several aspects of life since the pandemic halted life globally. One of these aspects is education. They added that education that usually takes place in various schools had to be conducted from a distance because of the pandemic. This imposed certain responsibilities on students, teachers, and parents, who are among the most important variables in education, and also led to problems in educational activities. On the other hand, these problems affected the learning of the senior high school students.

Based on the results of the study, 71% of the respondents said they learned less when the school building was closed. In addition, 20% of the respondents said they learned about as much when the school building was closed while 9% of the respondents said they learned more when the school building was closed. According to Onyema, et al. (2020), the COVID-19 pandemic has adverse effects on education. Examples are learning disruptions and decreased access to education. As concluded by Bonal and González (2020), the closure of schools due to COVID-19 produces enormous challenges for developing effective policies to solve learning losses and learning inequalities. Table 4 summarizes the students' subjective impression of learning during the closure of school due to the COVID-19 pandemic.

Table 4. Students' subjective impression of learning during the closure of a school

Statements	Percentage
1. I learned less when my school building was closed.	71%
2. I learned about as much when my school building was closed.	20%
3. I learned more when my school building was closed.	9%

## CONCLUSIONS AND RECOMMENDATIONS

According to Tria (2020), having the COVID-19 pandemic has brought enormous challenges and has affected the educational sectors and no one knows when this pandemic ends. He added that to sustain and provide quality education despite lockdown and community quarantine, the new normal must be taken into consideration in connection with the planning and implementation of the "new normal educational policy". Based on the results of the study, the following are the conclusions: (a) many students used mobile phones in their study, (b) some students encountered problems in self-directed learning like having internet access and in finding time to study due to household activities, (c) despite the pandemic every school applied actions or activities to sustain learning, and (d) majority of the students learned less in self-directed learning.

Based on the results of the study, the following are the recommendations: (a) The schools must apply different or varied learning modalities wherein students can learn with or without a digital device. (b) The schools must implement solutions to the problems encountered by the students in self-learning. (c) The schools must do more activities to sustain learning in this time of pandemics. (d) The schools must apply more efforts to add up the learning of the students. (e) The stakeholders must work together to help the students in this time of the pandemic. (f) Further research studies on self-directed learning amid the COVID-19 pandemic using other variables must be done.

## IMPLICATIONS

Assessment of self-directed learning amid the COVID-19 pandemic is a way to determine the strengths and weaknesses of students. Furthermore, it also shows the strengths and weaknesses of the school and other stakeholders relative to achieving the vision and mission of the Department of Education. Added to these, the needs and problems of the students in self-directed learning must be addressed by the schools in partnership with other stakeholders.

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