

Flexible Learning among Criminology Students of Data Center College of the Philippines

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Abstract- This study determined the problems encountered and the effect of flexible learning to the Criminology students of the Data Center College of the Philippines of Laoag City Inc.

The study employed the descriptive method of research utilizing an online questionnaire. A total of 225 Criminology students were taken as respondents.

Percentage and frequency was used to analyze the demographic profile of the respondents and weighted mean was used to determine the problems encountered by the students, their coping mechanisms and the effect of flexible learning to their finances, psychological and academic performance.

Results show that the age of the criminology students of DCCP Laoag City Inc. ranges from 20 to 27 years old with a mean of 20 years old. Majority of the respondents are male (57.33%). In terms of type of locality, majority (61.77%) are from the rural area and 38.22 % of them lives in the urban area. Almost all respondents (72.90%), in terms of social class, belong to the poor classification based on PDIS 2018 tool.

The criminology students are experiencing various difficulties in the adaptation of flexible learning particularly in the online learning and modular learning. In the online learning, the most pressing problems are: having weak signal, not good internet connection and problems accessing the computer/gadget for online learning. Whereas in the modular learning the following problems prevailed: module is hard to understand and

needs teacher's guidance, and tasks need to be done should be with teacher's intervention.

Coping mechanisms of the Criminology students towards problems encountered in the flexible learning. The criminology students, despite of the problems encountered were able to cope up with the lessons in the flexible learning. In the online learning, Criminology students when not motivated tends to think of their future and sacrifices of their families. In addition, students with internet problems at home tend to look for a place with strong signal or they go to computer shops just to attend their classes. In the Modular Learning, Criminology students do time-management to accomplish all the tasks given to them, they also engage in physical activities to make them focused on their studies, in addition they also created a study place to do their tasks.

Effects of Flexible learning to the Criminology students to their financial, psychological and academic performance. The results showed that the flexible learning affected the students financially and psychologically, however their academic performance is not that affected.

Based on the findings, it is therefore recommended that: the DCCP management to consider the issues and problems faced by the students in flexible learning, such as internet connectivity, computer literacy and teacher-student relationship should be improved; the students having weak internet connectivity should tap local government units, the school administrator and other agencies that can render help into their problems; for the teacher to be more considerate towards their students' situation; For the conduct of flexible learning: (1) in the

online learning, a more realistic set-up should be developed like production of pre-recorded videos, (2) in the modular learning, there should be pre-recorded videos highlighting the instructions and the things that needs to be accomplished by the students; and lastly the DCCP management to consider the implementation of the proposed action plan made so that there is improvement in the learning environment of criminology student.

Keywords:- Flexible Learning, Criminology Studet, Modular Learning, Online Learning.

I. THE PROBLEM AND ITS SETTING

Introduction

With the onset of the Coronavirus Disease 2019 (COVID-19) spreading all around the world, all schools throughout the globe opted to use the online platforms available in each country. In this time of pandemic, Zoom, Google Meet, and Facebook are some of the online platforms that had been used as the medium of education around the globe to continue the learning for the school year 2020-2021. Online schooling provides virtual classes that needs proper online equipment's such as a smartphone that can support calls or videos, moreover, a stable and uninterrupted internet connection is needed to have smooth flow of interaction between the students and the instructor. (Magsambol, 2020)

In the Philippines during the onset of the pandemic, Chairman Prospero de Vera of Commission on Higher Education (CHED) insisted that learning must still continue. He stated that flexible learning can be adapted by state colleges and universities and private higher education institution (HEIs), stating further that they have the freedom to choose the mode of instruction under the flexible learning (Magsambol, 2020). So due to the increasing cases of the COVID-19, most universities and colleges opted to choose flexible learning, adapting either online classes or self-learning modules or both.

Investigations have been conducted by different researches to examine and understand the connection between factors influencing learning results, particularly in mixed learning (Ellis, Pardon, et al, 2016). Zanchris (2015) led an investigation of students partaking in the Learning Management System (LMS)-framework Moodle and discovered that reading and posting message, content creation contribution, test endeavours and quantity of records are four variables which has influence on the scholastic performance of student. Garrison et al. (2005)

One of the many problems usually encountered by students in online learning is adaptability struggle, switching from the traditional classroom and face-to-face training to a virtual classroom makes the learning process a novel experience for students (Kirem, 2015). With the abrupt and sudden change, students might find it hard and it may take time for them to adapt. Another is technical and computer literacy, Kirem (2015) stated that students are not provided with strong internet connection that the online courses require and some students might fail to catch-up because of glitching,

moreover, having fundamental basic know-how of computers can also be tiresome and troublesome. In addition, self-motivation is also an essential factor in online learning because there might be difficulties in handling technological medium and the amount of work can be insurmountable, thus, having parent, peer, and self-support is vital in online learning (Kirem, 2015). In connection with flexible learning, self-learning modules are also given to students so as to supplement the gap of online classes. However, some problems encountered with these modalities are greater self-discipline and self-motivation required for students, increased preparation time and lack of concrete rewards for teachers and staff, and greater administrative resources needed to track students and operate multiple modules. (Dochy et al., 1989)

The Data Center College of the Philippines (DCCP) of Laoag City, Inc. is an educational institution offering higher learning education like Bachelor of Science in Criminology. The institution is one with the government in adapting flexible learning to prevent the spread of the virus and to be able to still continue on spreading knowledge to student's despite of the pandemic. Flexible learning is new to the institution, so problems are inevitable. With the problems posed by flexible learning, the general objective of this study was to identify the problems encountered by the students on the adaption of flexible learning together with their coping mechanisms. It also aimed to know how online and modular affected the criminology students on their finances, psychological and academic performance.

Statement of the Problem

The study generally aimed to know the effects of flexible learning to criminology students.

Specifically, it aimed to investigate,

1. What is the demographic profile of the respondent as to:
 - a. age;
 - b. sex;
 - c. place of locality and;
 - d. social class?
2. What are the problems encountered as to:
 - a. online learning;
 - b. modular learning?
3. What are their coping mechanism as to:
 - a. online learning;
 - b. modular learning?
4. What are the effects of flexible learning as to:
 - a. financial;
 - b. psychological;
 - c. academic performance?

Theoretical Framework

The following are the theories used in the study;

Predominant Learning Theory

Predominant learning theory which is constructivism theory, asserts that learning is an active procedure as students enter the process of building knowledge by trying to clarify

the events of the world environment. Constructivists believe that learning only happens when there is active processing of information and so they ask students to create their own motifs by linking new knowledge to those motives. As a result, this enables them to constantly undergo the cultivation of their post-cognitive skills (Technology in Education, n.d.; Kostaditidis, 2005). Actions in the constructivist model enhance the ability to solve the problems of those involved and the ability to conduct research and work within a group. At the same time, the educator plays the role of the assistant-supporter of the learning process and their students, encouraging them to formulate their own ideas and conclusions (Weegar & Pacis, 2012).

This theory emphasized that although the mind has an important role in learning, the environment stimulus and student response is indicative of learning success. Moreover, constructivist approach says that people construct their own understanding by experiencing things and reflecting on these things. With these in mind, this study will learn of the effect on flexible learning through online class and self-learning modules modalities to criminology students. Most importantly how the environment affects the construction and application of knowledge when they are just in their homes without any real-world scenarios that they may experience which they associate the knowledge that they've learn usually in a traditional and face-to-face classroom.

It advanced from a positivist perspective identified with cause and effect. In layman's terms, an activity produces response. In education, behaviorism inspects how learners carry on while learning. Behaviorism centers around seeing how learners react to specific stimuli that, when repeated, can be assessed, evaluated, and inevitably controlled for every person. The accentuation in behaviorism is on that which is recognizable and not on the brain or cognitive cycles (Picciano, 2017).

This theory emphasized that students behave in a certain stimuli and they react on it on different ways, same as through with the focus of this study. The researchers considered the flexible learning as a stimulus and the learners have different response with the said stimulus. In relation to these, the researchers interpreted a data on how these different students react on flexible learnings.

Theory of Distance Learning

Universities even there, have developed distance learning as a way to reach the under privilege or people who need to work on jobs by day and study at night and with development of new technologies, it has promoted an astounding growth in distance education, both in the number of students enrolling and in the number of universities adding education at a distance to their curriculum (Garrison, 1990).

With the occurrence of a pandemic, distance education had been the option of some universities which has been described by some (Garrison, 1990; Hayes, 1990) as no more than a hodgepodge of ideas and practices taken from traditional classroom settings and imposed on learners who just happen to be separated physically from an instructor. Because of the very nature of distance education as learner-centered instruction, distance educators must move ahead to investigate how the learner, the instructor, and the technology collaborate to generate knowledge.

Distance education was not quite accepted during the early times, which led Holmberg, Keegan and Rumble explore the different assumption and justify the importance of this nontraditional kind of education. With an early vision of what it meant to be a nontraditional learner, these pioneers in distance education defined the distance learner as one who is physically separated from the teacher (Rumble, 1986), has a planned and guided learning experience (Holmberg, 1986), and participates in a two-way structured form of distance education that is distinct from the traditional form of classroom instruction (Keegan, 1988). Wedemeyer (1981) identifies essential elements of independent learning as greater student responsibility, widely available instruction, effective mix of media and methods, adaptation to individual differences, and a wide variety of start, stop, and learn times. Holmberg (1989) calls for foundations of theory construction around the concepts of independence, learning, and teaching

Since time immemorial, distance learning had been a norm of leading universities and with pioneers backing up the said non-traditional education, this study will then assess some of the problems encountered by criminology students and its effect to their finances, psychological and academic performance.

Conceptual Framework

The schematic diagram shown in Figure 1 illustrates the conceptual framework of the study which used the Input – Process – Output (IPO) model.

Inputs. The inputs of this study have four components: the demographic profile of the students, problems encountered by the students in the flexible learning as well as their coping mechanisms and the effect of flexible learning to the students.

Process. The process focused on the descriptive analysis of the survey data. The analysis was followed by the formulation of the Action Plan that Bridges the Gap of Flexible Learning which was based on the findings, implications and insights from the survey.

Outputs. The output of the study was the approved Action Plan that Bridges the Gap of Flexible Learning.

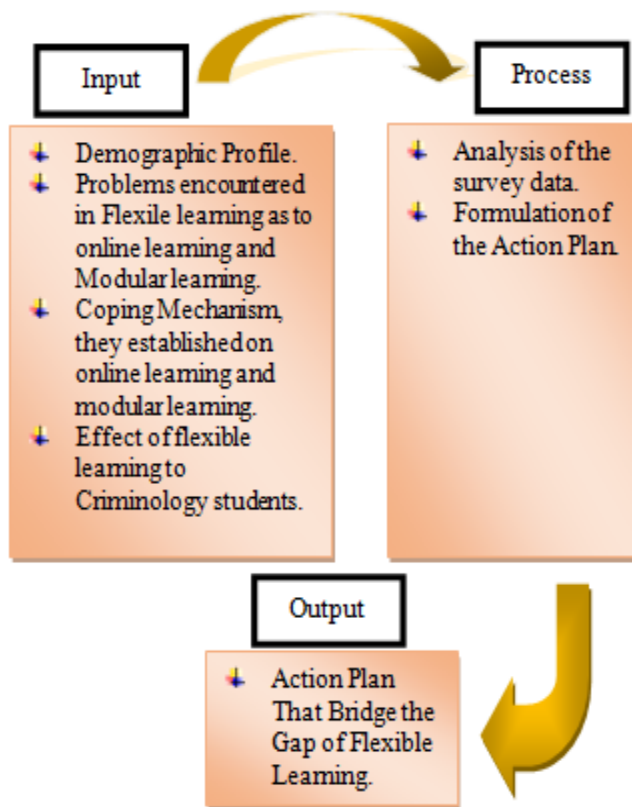


Figure 1. The Research Paradig

Significance of the Study

This research study is beneficial to the following;

Students. This study is beneficial to the students, most importantly, the criminology students on how flexible learning have affected them in their studies which will serve as their reflection to adapt the changes in the learning environment. Furthermore, this will inform students with an action plan to help them cope-up with flexible learning if in the future there will be a pandemic again.

Teachers. This study will give teachers knowledge on how flexible learning affects students. This will give teachers the idea on how to deal with flexible learning considering the situation and environment of the students.

School Administration. The result of the study will give valuable information to the school administration that may help them in making decisions on the improvement of the implementation of flexible learning in the institution.

Researchers. This study served as an authentic learning experience that will help the researchers sharpen their skills and acquire new knowledge.

Future researchers. This will give them baseline information based on the data collected for future researchers and an action plan that they can improve.

Parents. This study helps parent understand flexible learning and how their sons or daughters are affected from it. Through the result of the study, the parents will be able to identify their learning needs in this new normal of education.

Scope and Limitations of the Study

This research study focused on the development of an action plan that bridges the gap of flexible learning. The study looked into the description of the demographic profile of the students, the problems encountered by them in the conduct of flexible learning and their coping mechanisms with those problems. Further, it also looked into the effect of flexible learning to the students' financial, psychological and academic performance.

The results of the survey were the bases for the crafting of the Action Plan that Bridges the Gap of Flexible Learning.

The respondents of the study were the Criminology students of the Data Center College of the Philippines of Laoag City Inc.

The study was conducted from December to January 2020-2021.

Definition of Terms

For the purpose of clarification, these terms were used in this study and was defined as follows:

Coping Mechanism. It is the psychological strategy that the Criminology students adapted or relied on to cope up with the problems they have encountered with flexible learning.

Criminology Students. These are the students enrolled in Bachelor of Science in Criminology at the Data Center College of the Philippines of Laoag City, Inc. for the first semester of SY 2020-2021.

Demographic Profile. This refers to the description of the Criminology students as to their age, sex, locality and social class.

Flexible Learning. This refers to the method of learning adapted by the institution for the new normal of education, particularly the online and modular learning.

Modular learning. This pertains to the mode of flexible learning that uses Self-Learning Modules.

Online Learning. This refers to the mode of flexible learning where discussions take place over the internet.

Problems encountered. This pertains to the hindrances, challenges and concerns, both on the online and modular learning encountered by the criminology students.

Effect of Flexible learning. This refers to the impact of the flexible learning to the Criminology students' financial, psychological and academic performance.

II. REVIEW OF RELATED LITERATURE AND STUDIES

This chapter presents an extensive review of literature and research on flexible learning.

Impact of Modular Learning

Modular courses have been widely implemented as part of the competency-based training agenda. However, there is emerging concern that modular courses are not promoting effective learning although pragmatic considerations indicate they will continue to be widely used since there appear to be numerous advantages associated with their employment. A major inherent weakness of modularization as a method of content organization is it tends to fragment knowledge. The cognitive psychology and skill learning literatures, largely ignored in the development and implementation of competency-based training, indicate principles, which if followed, will help to ensure effective learning from modular courses. (Conford, 1997)

A study explores the development of modular education and its application in the Dutch Open University. The origins of modular education are examined from the first applications in American higher education and the development of electives and the credit system to the role of modular instruction as the basis of higher education curriculum. Advantages of modular instruction include more choice and self-pacing for students; more variety and flexibility for teachers and staff; and increased adaptability of instructional materials. Disadvantages include greater self-discipline and self-motivation required for students, increased preparation time and lack of concrete rewards for teachers and staff, and greater administrative resources needed to track students and operate multiple modules. Changes in educational practices in the Dutch speaking world are reviewed, comparing traditional to modular approaches. The modular education program at the Dutch Open University, is described, and including three modular course models (study unit model, the textbook-workbook model, and the essay/thesis model) with the advantages and disadvantages of each one outlined. Finally, the paper looks at the importance of prior knowledge, suggesting that in a modular education environment, according to the changing ideas today on personal development, students will request a kind of instruction more fully in accordance with and appropriate to their personal characteristics and their prior knowledge state resulting in a more efficient and effective education for the learner. There is also the opportunity for students to skip a module or to work through it more quickly based on prior knowledge. (Dochy et al., 1989)

Impact of Online Learning

Chou et al. (2010) has defined active interaction in online learning activities including the types of interaction: the learner-self, learner-learner, learner-instructor, learner-content, and learner interface. The learning activities in the course is a combination of forms of interaction between the subjects involved in the teaching and learning activities include: student-content, student-instructor, and student-student interaction (Gradel et al., 2010). Popular LMS

systems currently provide essential tools that allow interactive activities in the course, such as forums, message, online forms of assignments, exercises in wiki format, virtual classroom, etc. These tools also assist teachers in tracking and monitoring the student learning process, such as status submitted assignments reports, the frequency of access statistics, activity logs on the system. There have been many studies propose solutions to make interactive activities effectively support the learning process of students. Evans et al. (2003) implemented three interactive activities: the pace control, self-assessment, interactive simulation of his research and time of using the system is a factor affecting student results. The results of their study showed that students with better results and need less time learning when interacting more with the system. However, the research no conducted with other interactive forms.

Similarly, according to research results Damianov, et al., (2009), there is a positive influence in the direction of time spent online and the results calculated by the scores of students, especially students in the group above average. Contrary to the judgment of Eom (2006) showed that there was no relationship between other forms of interaction to the learning outcomes of students. Early research found out interactive activities online in the blended learning course have an impact on student learning outcomes.

The Student-Teacher Interaction

Student - teacher interaction is a key activity in the traditional teaching method when the teachers play a central role. With blended learning environment, learners play the central role, interaction between teacher and students become more flexible in many different forms. Kang et al. (2013), said that the interactive activities between teachers and students have an impact on learning outcomes of students when implementing learning activities such as learning assistance, and social intimacy, communication and instructional Q & A, instructor presence, Instructional support.

The Student - Student Interaction

Blended learning environment allows students to have more favorable conditions of time, space to perform the interactive operation. With the supported technology, the forms of interaction between the students in the course are increasingly diverse and more efficient. The previous studies have shown that this kind of interaction student - student that affect learning outcomes. The online learning activities different to be tested to determine whether the effects of this interaction. Dawson et al. (2008) indicate that interaction via discussion forums is 80% of interaction in online learning environments. However, studies have not mentioned the influence of activities through the forum on learning outcomes. Schrire (2006) suggests that students obtain better academic results when participating in discussions with each other rather than proceed with the teacher. Song et al. (2011) examined the interaction through discussion measured by the number of postings and log-in with academic results and showed no correlation between the numbers of scores posted to results. Besides, in this study, the authors implemented only in the asynchronous interactive type.

Similarly, Macfadyen (2010) constructed regression model that results showed a tight correlation between the study results to the number of forum posts, the number of completed assignments. Kent et al. (2016) analyzed the quantitative data based on the number of post and view of the 231 students in online discussion activities. Considering the role of teamwork, Mitchell (2007) noted that working groups have a positive impact on learning outcomes of students. Consider factors influenced by social networks, Sparrowe et al. (2001) suggests that social networks have a direct impact on the final learning outcomes of learners. However, Kayode (2014) review the impact of the interaction on learning outcomes, with interactive activities including reading the contents of the blog, interacting with other learners, and engaging in the blog context with 342 students participated in the experiment. The results showed that this form of interaction between the students together no significant impact on student learning outcomes.

The Student - Content Interaction

With the support tools, learning content design is increasingly diverse in forms and ways to communicate the sense of excitement generated for learners to learn. Moallem (2003) stated that “it became clear that developing an online course that encourages student exploration and reflection required much more thinking, time, and effort than had been predicted.” (p.99). Anderson (2003) also stated that “Content, having only volition ascribed to it by humans, is the most flexible of actors, “willing” to undertake any combination and quantity of interaction” (p. 3). Lee (2016) and Sim (2010) shows that the impact of experience using blogs to the learning outcomes of students. Yang et al. (2016) developed Col framework model proposed by Garrison et al. (2008) develop blog content course, and online presence shows there impact on academic performance. Similarly, video blog in the course content is also used to improve the efficiency of learning (Liu, 2016). Asterhan (2015) showed a positive effect on the content reads to the learning outcomes, which are also shown in the study by Ramos (2008) when they analyzed correlation keep the number of pages viewed, discussion posts, discussion reads to the learning outcomes of students. Nandi et al. (2011) also showed that the number of posts increases in the time students have to submit assignments or take exams, students have better academic results time more online during the course.

Learning management systems to help design and develop the course in the form of blended or online learning easier and more convenient. Through providing learning activities such as lessons, forum, quiz, wikis, surveys help students easily interact with the learning environment. Steel and colleagues (2010) showed that the relationship between the frequency of the LMS system access (via counting the number of clicks) affect student scores. Wei and colleagues (2015) have examined the impact of the interaction via the LMS tools. Data of 381 undergraduate students through analysis of the results of assignments form (online discussion, exam, group project) and the data access (access time, the number of posts, the time to read the document), the research results show that the relative activity this can affect their academic performance. Notice that the LMS system or

technological factors play a major role in promoting the interactive learning activities. Zacharis (2015) have demonstrated the Wiki edit learning activities, content creation contribution, mail messages read, and assignments submitted quiz engagement affect 10% to 27% of the learning outcomes of students in the blended learning courses when considering 29 online Activities.

Strengths of Online Learning

Lindeman et al. (2002) stated that there are many reasons why online programs have become a popular form of distance learning in higher education today. The online environment offers unprecedented opportunities for people who would otherwise have limited access to education, as well as a new paradigm for educators in which dynamic courses of the highest quality can be developed. Here is a list of some of the major benefits of online programs: The main advantage of asynchronous online learning is that it allows students to participate in high quality learning situations when distance and schedule make on-ground learning difficult-to-impossible. Students can participate in classes from anywhere in the world, provided they have a computer and Internet connection. In addition, the online format allows physically challenged students (and teachers) more freedom to participate in class. Participants access the Virtual Classroom through their computers instead of having to “go to class” physically.

The Virtual Classroom is accessible 24 hours a day, seven days a week. Time efficiency is another strength brought by the online learning format. Asynchronous communication through online conferencing programs allows the professional juggling work, family, and study schedules to participate in class discussions. There is no question about doing the work; just do it at the times that are more convenient. Students can access their courses at any time of day or night. Further, they have continuous access to lectures, course materials, and class discussions. This is particularly convenient for those who may need to reread a lecture or take more time to reflect on some material before moving on.

Synergy. Lindeman et al. (2002) indicated that online format allows a dynamic interaction between the instructor and students and among the students themselves. Resources and ideas are shared, and continuous synergy will be generated through the learning process. Everyone can contribute to the course discussions and comments on the work of others. The synergy that exists in the student-centered Virtual Classroom is one of the most unique and vital traits that the online learning format possesses.

High Quality Dialog. Within an online asynchronous discussion structure, the learner may reflect on comments from others before responding or moving on to the next item. This structure allows students time to articulate responses with much more depth and forethought than in a traditional face-to-face discussion situation where the participant must analyze the comment of another on the spot and formulate a response or otherwise lose the chance to contribute to the discussion. (Lindeman et al. 2002)

Student Centered. Within an online discussion, the individual student responds to the course material (lectures and course books, for example) and to comments from other students. Students usually respond to those topics within the broader conversation that most clearly speak to their individual concerns. These situations result in smaller conversations taking place simultaneously within the group. While students should read all their classmates' contributions, they actively engage in only those parts of the dialog most relevant to their own interests. In this way, students control their own learning experience and tailor the class discussions to meet their own specific needs. Ideally, students make their own individual contributions to the course while at the same time taking away a unique mix of relevant information. (Lindeman et al. 2002)

Level Playing Field. In the online environment, learners have a certain measure of anonymity. Discriminating factors such as age, dress, physical appearance, disabilities, race, and gender are largely absent. Instead, the focus of attention is clearly on the content of the discussion and the individual's ability to respond and contribute thoughtfully and intelligently to the material at hand. (Lindeman et al. 2002)

Access to Resources. It is easy to include distinguished guest experts or students from other institutions in an online class. Furthermore, today's students have access to resources and materials that may be physically located anywhere in the world. An instructor can compile a resource section online with links to scholarly articles, institutions, and other materials relevant to the course topic for students to access for research, extension, or in-depth analysis of course content material. (Lindeman et al. 2002)

Creative Teaching. The literature of adult education supports the use of interactive learning environments as contributing to self-direction and critical thinking. Some educators have made great strides in applying these concepts to their on-ground teaching. However, many classes still exist which are based on lectures and rote memorization of material. The nature of the semi-autonomous and self-directed world of the Virtual Classroom makes innovative and creative approaches to instruction even more important. In the online environment, the facilitator and student collaborate to create a dynamic learning experience. The realization of a shift in technology creates the hope that those who move into the new technology will also leave behind bad habits as they adopt this new paradigm of teaching. As educators transform their courses to take full advantage of the online format, they must reflect on their course objectives and teaching styles. Many of the qualities that make a successful online facilitator are also tremendously effective in the traditional classroom. (Lindeman et al. 2002)

Weaknesses of Online Learning

While online programs have significant strengths and offer unprecedented accessibility to quality education, there are weaknesses inherent in the use of this medium that can pose potential threats to the success of any online program. These problems fall into six main categories:

Technology: Equity and Accessibility to Technology. Before any online program can hope to succeed, it must have students who are able to access the online learning environment. Lack of access, whether it be for economic or logistic reasons, will exclude otherwise eligible students from the course. This is a significant issue in rural and lower socioeconomic neighborhoods. Furthermore, speaking from an administrative point of view, if students cannot afford the technology the institution employs, they are lost as customers. As far as Internet accessibility is concerned, it is not universal, and in some areas of the United States and other countries, Internet access poses a significant cost to the user. Some users pay a fixed monthly rate for their Internet connection, while others are charged for the time they spend online. If the participants' time online is limited by the amount of Internet access they can afford, then instruction and participation in the online program will not be equitable for all students in the course. (Lindeman et al. 2002)

Computer Literacy. Both students and facilitators must possess a minimum level of computer knowledge to function successfully in an online environment. For example, they must be able to use a variety of search engines and be comfortable navigating on the World Wide Web, as well as be familiar with Newsgroups, FTP procedures, and email. If they do not possess these technology tools, they will not succeed in an online program; a student or faculty member who cannot function on the system will drag the entire program down. (Lindeman et al. 2002)

Limitations of Technology. User friendly and reliable technology is critical to a successful online program. However, even the most sophisticated technology is not 100% reliable. Unfortunately, it is not a question of if the equipment used in an online program will fail, but when. When everything is running smoothly, technology is intended to be low profile and is used as a tool in the learning process. However, breakdowns can occur at any point along the system. For example, the server which hosts the program could crash and cut all participants off from the class; a participant may access the class through a networked computer which could go down; individual PCs can have numerous problems which could limit students' access; finally, the Internet connection could fail, or the institution hosting the connection could become bogged down with users and either slow down or fail altogether. In situations like these, the technology is neither seamless nor reliable, and it can detract from the learning experience. (Lindeman et al. 2002)

The Students. While an online method of education can be a highly effective alternative medium of education for the mature, self-disciplined student, it is an inappropriate learning environment for more dependent learners. Online asynchronous education gives students control over their learning experience and allows for flexibility of study schedules for non-traditional students; however, this places a greater responsibility on the student. In order to successfully participate in an online program, students must be well organized, self-motivated, and possess a high degree of time management skills in order to keep up with the pace of the

course. For these reasons, online education is not appropriate for younger students (i.e. elementary or secondary school age) and other students who are dependent learners and have difficulty assuming responsibilities required by the online paradigm. (Lindeman et al. 2002)

The Facilitator: Lack of Essential Online Qualities. Successful on-ground instruction does not always translate to successful online instruction. If facilitators are not properly trained in online delivery and methodologies, the success of the online program will be compromised. An instructor must be able to communicate well in writing and in the language in which the course is offered. An online program will be weakened if its facilitators are not adequately prepared to function in the Virtual Classroom.

An online instructor must be able to compensate for lack of physical presence by creating a supportive environment in the Virtual Classroom where all students feel comfortable participating and especially where students know that their instructor is accessible. Failure to do this can alienate the class both from each other and from the instructor. However, even if a virtual professor is competent enough to create a comfortable virtual environment in which the class can operate, still the lack of physical presence at an institution can be a limitation for an online program. For the faculty as well as the participants, such things as being left out of meetings and other events that require on-site interaction could present a limiting factor in an online program. (Lindeman et al. 2002)

The Administration and Faculty. Some environments are disruptive to the successful implementation of an online program. Administrators and/or faculty members who are uncomfortable with change and working with technology, or feel that online programs cannot offer quality education, often inhibit the process of implementation. These people represent a considerable weakness in an online program because they can inhibit its success.

Sometimes administration cannot see beyond the bottom line and look at online programs only as ways to increase revenues and are thus not committed to seeing online programs as a means of providing quality education to people who would otherwise not be able to access it. In such a case, an institution that is not aware of the importance of proper facilitator training, essential facilitator characteristics, and limitations of class size would not understand the impact that these elements can have on the success of an online program. (Lindeman et al. 2002)

The Online Environment: Levels of Synergy. Online learning has its most promising potential in the high synergy represented by active dialog among the participants, one of the most important sources of learning in a Virtual Classroom. However, in larger classes (20 or more students), the synergy level starts to shift on the learning continuum until it eventually becomes independent study to accommodate the large class. At this point, dialog is limited as well as interaction among participants and the facilitator.

The medium is not being used to its greatest potential. (Lindeman et al. 2002)

What Should Not Be Taught Online

Even with recently generated excitement and enthusiasm for online programs, it is important to recognize that some subjects should not be taught online because the electronic medium does not permit the best method on instruction. Examples include hands-on subjects such as public speaking, surgery, dental hygiene, and sports where physical movement and practice contribute to the achievement of the learning objectives. These subjects are probably best taught in a face-to-face traditional learning environment. Hybrid courses may represent a temporary solution to this problem, thus making that portion of the course more accessible to a greater number of people who would otherwise have difficulty getting to campus. However, solutions of that sort still underline the fact that online teaching cannot satisfy all educational needs and goals. Just because it may be technologically possible to simulate a physical learning experience, this does not necessarily mean that it is the best way to teach it. (Lindeman et al. 2002)

The Curriculum

The curriculum of any online program must be carefully considered and developed in order to be successful. Many times, in an institution's haste to develop distance education programs, the importance of the curriculum and the need for qualified professionals to develop it are overlooked. Curriculum and teaching methodology that are successful in on-ground instruction will not always translate to a successful online program where learning and instructional paradigms are quite different. Online curriculum must reflect the use of dialog among students (in the form of written communication) and group interaction and participation. Traditional classroom lectures have no place in a successful online program. Education of the highest quality can and will occur in an online program provided that the curriculum has been developed or converted to meet the needs of the online medium.

Today is a very exciting time for technology and education. Online programs offer technology-based instructional environments that expand learning opportunities and can provide top quality education through a variety of formats and modalities. With the special needs of adult learners who need or want to continue their education, online programs offer a convenient solution to conflicts with work, family, and study schedules. Institutions of higher education have found that online programs are essential in providing access to education for the populations they wish to serve. For an online program to be successful, the curriculum, the facilitator, the technology, and the students must be carefully considered and balanced in order to take full advantage of the strengths of this format and at the same time avoid pitfalls that could result from its weaknesses. (Lindeman et al. 2002)

The literature and studies reviewed were important inputs to the researchers in the conceptualization of the study in terms of the variables studied, the research design followed, the questionnaire used and in the analysis of the

data. Further, the literature and studies served as relevant guide of the researcher in the formulation of an action plan that can bridge the gap of flexible learning.

III. METHODOLOGY

This chapter presents the research design, locale and population, instrumentation and data collection and the tools for data analysis.

Research Method

This research study applied the descriptive research design. According to Shona McCombes (2020), descriptive research aims to accurately and systematically describe a population, situation or phenomenon. More simply put, descriptive research is all about describing people or existing conditions which, in this study were the demographic profile of the students, problems encountered by the students in the flexible learning as well as their coping mechanisms and the effect of flexible learning to the students.

Population and Locale

The population of the study was composed of 225 criminology students: 93 first year students 74 second year students, 48 third year students and 10 fourth year students. Random sampling was used in choosing the respondents from 1,430 students enrolled during the first semester school year 2020-2021.

The study was conducted in Data Center College of the Philippines of Laoag City Inc. located at Brgy. 1 Laoag City, Ilocos Norte.

Data Gathering Instruments

The data needed were gathered through an electronic questionnaire via google forms. This platform was used in gathering data because of health protocols.

The survey questionnaire was composed of two parts. Part 1 gathered the personal information of the students such as age, sex, type of locality, and social status adapted from the PDIS, 2018. Part 2 gathered information on flexible learning. This part was subdivided into five subcomponents: problems encountered in online learning, problems encountered in modular learning, coping mechanisms in online learning, coping mechanisms in modular learning, effect flexible learning in the financial, psychological and academic performance of the students.

Data Gathering Procedure

Brainstorming was conducted. Questionnaires was first checked, validated and approved by the adviser. After it was approved, researcher encoded the validated questionnaires in the google forms. Before the administration of the questionnaires to the respondents a letter requesting permission to conduct the study was secured. After its approval, questionnaires are sent via Facebook messenger of every class president who was in charge in the distribution of the link to his/her classmates. Afterwards, the collected data was tallied, tabulated and interpreted.

Statistical Treatment of Data

Percentage and frequency was used to analyze and interpret the data on the demographic profile of the respondents. Weighted mean was used to analyze the data on the problems encountered in modular and online learning, coping mechanisms and on the effect of flexible learning to the financial, psychological and academic performance of the criminology students of the DCCP of LAoag City, Inc.

The responses of the student on the problems encountered on flexible learning and their coping mechanisms were coded and interpreted as follows:

Value	Range	Descriptive Interpretation	Verbal Description
4	3.26 – 4.00	Always	Problem encountered daily in flexible learning.
3	2.51 - 3.25	Often	Problem encountered in flexible learning twice or thrice a week.
2	1.76 - 2.50	Rarely	Problem encountered in flexible learning once a week.
1	1.00 - 1.75	Never	Never encountered any problem in flexible learning.

The responses of the student on the effect of flexible learning in their financial, psychological and academic performance was coded and interpreted as follows:

Value	Range	Descriptive Interpretation
4	3.26 – 4.00	Strongly Agree
3	2.51 - 3.25	Agree
2	1.76 - 2.50	Disagree
1	1.00 - 1.75	Strongly Disagree

IV. PRESENTATION, INTERPRETATION, AND ANALYSIS OF DATA

This chapter presents the results in view of the different questions dealt within the study. Presentation of findings, their interpretation, and analysis are discussed in this chapter.

Demographic Profile of the Respondents

The demographic profile of the criminology students of Data Center College of the Philippines of Laoag City were described in terms of their age, sex, type of locality, and their social status.

Age. Findings implies that most of the respondents are still in their young adulthood phase in life. This stage in life according to Erik Erikson’s theory of psychosocial development, focuses on the intimacy versus isolation period. This is a stage where people focus on building their positive intimacy with one another.

TABLE 1. AGE OF THE RESPONDENTS n=225

Age	Frequency	Percentage
18	36	16.00%
19	85	37.78%
20	47	21.00%
21	36	16.00%
22	8	03.56%
23	8	03.56%
24	4	01.78%
27	1	00.40%

Table 1 shows the age of the criminology student ranges from 18 to 27 years old with a mean of 20 years old. Majority (37.78%) of them are 19 years old while the least frequency falls with the age of 27 years old (0.40%). The age 19 and 20 which has the highest percentage are usually the age of freshmen and sophomore students.

Sex. In the study, males outrank the females in number. However, according to Hassan et al (2016) females tend to outperform males because they are more hardworking and studious. Criminology’s historical analytical focus on men may be somewhat distinctive to the discipline. However, the exclusion or marginalization of women within the field is something common among many, if not nearly all, academic disciplines (Jenkins, 2014).

TABLE 2. SEX OF THE RESPONDENTS n=255

Sex	Frequency	Percentage
Male	129	57.33%
Female	40	42.67%

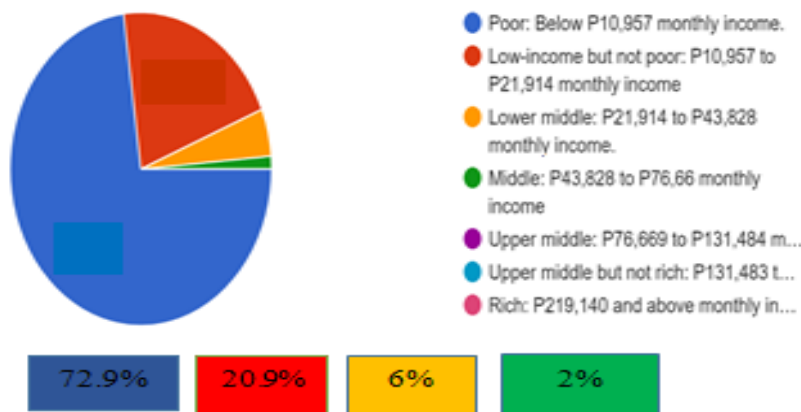


Figure 21. Social Class

In figure 2, it showed that majority (72.90%) are within the poor classification with a monthly income of below P 10,957.00 and only 2% are considered as middle class. The middle class is crucial in society. With better educational attainment and savings, middle-class workers hold critical roles in higher value-added sectors, particularly in services (Doepke and Zilibotti 2005, 2007). They are also willing to pay for better quality products and services, and their demands encourage investments in production and marketing, raising general income levels (Murphy et al. 1989).

Table 2 shows that majority of the respondents are male (53.33% or 129) while female is only 96 or 17.78 of the total respondents. This shows that criminology students are still dominated by male in terms of number.

Type of Locality. In the flexible learning, most problems of internet connection arise from those living in the rural areas due to geographical reasons.

TABLE3. TYPE OF LOCALITY OF THE RESPONDENT n=225

Locality	Frequency	Percentage
Urban	86	38.22%
Rural	139	61.77%

The table shows that most (61.77%) of the criminology students live in the countryside and only 38.22% live in the urban areas. This is one of the reasons why most of the students of the institution prefer modular learning than online learning. Internet connectivity in online learning is a significant issue in rural and lower socioeconomic neighborhoods. (Lindeman et al. 2002)

Social class. Social class shows the income brackets in the country as per the PIDS. Social classes play a major role for the government in identifying the right investment for the good of all. Albert et. Al (2015) states that middle class is a key to enhancing human capital due to large investments in education and health care to them. In the flexible learning, particularly in the online learning, needs more resources to continue education.

Problems Encountered in Flexible Learning

The challenges faced by the Criminology Students regarding the adaptation of flexible learning in the online and modular learning mode.

A. Problems Encountered in Online Learning.

The problems that the DCCP Laoag City Inc. Criminology students faced regarding the adaptation of online learning mode of education are depicted in Table 4.

TABLE 4. PROBLEMS ENCOUNTERED IN ONLINE LEARNING n=225

Problems Encountered	Mean	DESCRIPTIVE INTERPRETATION
1. I do not have good internet connection at home.	2.90	Often
2. The weak signal in my place affects my participation in online learning.	3.02	Often
3. I do have problems accessing my computer/gadget for my online learning.	2.80	Often
4. I do not have any gadgets such as phone or laptop for my online learning.	2.03	Rarely
5. I find it hard to follow the instructions made by the teacher through online.	2.68	Often
6. Even if my internet connection is strong, I cannot fully focus my attention on what I am doing because of distractions such as playing mobile legends or streaming social media at home.	2.41	Rarely
7. I have questions to the teacher and does not provided me immediate feedback or nothing at all.	2.10	Rarely
8. Even through online learning, my collaboration efforts with my classmates are not affected.	2.60	Often
9. My communication with my classmates was affected by online learning because of no internet connection and signal.	2.68	Often
10. I am not motivated to attend the virtual classes.	2.23	Rarely
11. I do not make my tasks on time or I delay and wait for the deadline.	2.35	Rarely
12. I am not happy with the current online learning.	2.76	Often

LEGEND:

Value	Range	Descriptive Interpretation	Verbal description
4	3.26-4.00	Always	Problem encountered daily inflexible learning.
3	2.51-3.25	Often	Problem encountered in flexible learning twice or thrice a week.
2	1.76-2.59	Rarely	Problem encountered in flexible leaning once a week
1	1.00-0.75	Never	Never encountered any problem in flexible learning.

The results indicated that the Criminology students of DCCP Laoag City Inc. encountered various challenges in this mode of flexible learning.

The data shows that most of the students experienced different level of difficulties along the indicators relative to the problems encountered in online learning.

The three most common challenges that the student faced are the following: *The weak signal in my place affects my participation in online learning (3.02), I do not have good internet connection at home (2.90), I do have problems accessing my computer/gadget for my online learning (2.80).* Regarding internet connectivity, most students are from rural areas where they are challenged geographically which makes them hard to follow instruction online. If the participants' time online is limited by the amount of internet access they can afford, then instruction and participation in the online program will not be equitable for all students in the course (Lindeman et al. 2002). And breakdowns can occur at any point along the system due to reasons like failure of internet connection. In situations like these, the technology is neither seamless nor reliable, and it can detract from the learning experience. (Lindeman et al. 2002). In terms computer literacy results of the study shows that some students often have problems accessing their computer and laptops with a mean score of 2.80 interpreted as *often*. According to studies, about 70% of the Philippine public schools do not even have a single computer unit. This is true in far-flung

barangays in the countryside. Computer lessons are still being conducted but only using sketches of the keyboard, monitor, and other parts of the computer. This condition has resulted in an imbalance of education to our youth and might have affected criminology students. If they do not possess these technology tools, they will not succeed in an online program; a student or faculty member who cannot function on the system will drag the entire program down. (Lindeman et al. 2002)

Interestingly students using online learning mode rarely encountered the following problems: *I do not have any gadgets such as phone or laptop for my online learning (2.3), I have questions to the teacher and does not provided me immediate feedback or nothing at all (2.10), I am not motivated to attend the virtual classes (2.23).* This means that though alongside with this positive reaction with teacher feedback because they rarely have problems when they ask teachers about their quarries.

B. Problems Encountered in Modular Learning

In line with flexible learning, self-learning modules are also given to students to supplement the gap of online classes. The problems that the DCCP Laoag City Inc. Criminology students faced regarding the adaptation of modular learning mode of flexible learning are depicted in Table 5.

The results indicated that the Criminology students of DCCP Laoag City Inc. encountered various challenges in this mode of flexible learning. Data shows that most of the

students experienced different level of difficulties along the indicators relative to the problems encountered in modular learning.

TABLE 5. PROBLEMS ENCOUNTERED IN MODULAR LEARNING

n=225

Problems Encountered	Mean	Descriptive Interpretation
1. It is hard for me to understand the modules given to me.	2.75	Often
2. I am not learning a from the modules given to me.	2.34	Rarely
3. I cannot follow the instructions in every given assessment / tasks.	2.31	Rarely
4. The task that needs to be done should be with teachers' interventions.	2.68	Often
5. I cannot answer the modules on time and independently.	2.33	Rarely
6. I do not feel motivated in modular learning.	2.34	Rarely
7. I feel that the modules given to me is not interesting enough that I cannot spent reading it on the specified time.	2.32	Rarely
8. I am not able to pass required outputs on time due to the number of tasks in one subject.	2.33	Rarely
9. Teacher/s do not provide feedback on questions I asked to keep me on track.	2.16	Rarely
10. The module provided information that is hard to understand and needs a teacher's guidance.	2.77	Often
11. I do have problems with the modules in terms of access.	2.55	Rarely

Legend

Value	Range	Descriptive Interpretation	Verbal description
4	3.26-4.00	Always	Problem encountered daily inflexible learning.
3	2.51-3.25	Often	Problem encountered in flexible learning twice or thrice a week.
2	1.76-2.59	Rarely	Problem encountered in flexible leaning once a week
1	1.00-0.75	Never	Never encountered any problem in flexible learning.

It is hard for me to understand the modules given to me (2.75), The modules provided information that is hard to understand and needs a teacher's guidance (2.77), The task that needs to be done should be with teacher's intervention (2.68) are the three most common problems encountered by the students. Modular learning used self-learning modules wherein students are obliged to read and understand them on their own. So the shift of learning from the traditional to flexible makes it difficult for them to adjust and cope up with the studies, because they are used to the scenario that the teacher is always there to discuss things and guide them with their assessments. According to Lindeman et al. (2002) it is important in learning to have a dynamic interaction between the instructor and students and among the students themselves. For with interaction, resources and ideas are shared, and continuous synergy will be generated through the learning process and everyone can contribute to the course discussions and comments on the work of others which makes the topic easier to understand and grasp. In addition, the interactive activities between teachers and students have an impact on learning outcomes of students when implementing learning activities such as learning assistance, and social intimacy, communication and instructional question and answer, instructor presence, Instructional support, Kang et al. (2013).

Interestingly students using modular learning mode rarely encountered the following problems: *Teacher/s do not provide feedback on questions I asked to keep me on track (2.16), I cannot follow the instructions in every given assessment / task (2.31), I feel that the modules given to me is*

not interesting enough that I cannot spent reading it on the specified time (2.32). This means that though modular learning, students can still somewhat track their development academically, and though there is a lack of interaction between students and teachers, they still find a way to do their assessments and still somewhat motivated to read the modules regardless of how hard it is.

Coping mechanism in Flexible Learning

These are the strategy adapted by the Criminology students to cope up with the challenges of the online learning ad modular learning.

A. Coping Mechanism in Online learning.

The coping mechanisms of the Criminology students in the adaptation of online learning is presented in table 6.

The results show that the Criminology students, despite of the problems encountered were able to cope up with the lessons in the online learning mode.

The results show that in cases students do not feel motivated in learning in this kind of mode Criminology students tried to think of their future and the sacrifices of their family to feel encourage again (3.24). In addition, students with connectivity problems still finds a way to join their classes through going to a place where there is signal or to a computer shops as evidence in the mean score of 2.90. In addition students ways to cope up with online learning includes the following item: *I eliminate distractions such as deleting applications like mobile legends just too focus on my*

studies (2.87); the weak signal in my place affects my participation in online learning so I hold myself accountable and find ways to cope up even if the internet connection is not good such as going to an internet café (2.85); since collaboration with my friends is not affected even in online learning, I am confident to be able to pass my subject (2.76); and I ask my classmates or ask Google instead (2.75). This results just shows that even there is the sudden shift from the physical classroom to virtual space and is creating a disruption among students, the Criminology students still finds a way to cope up with this challenges.

On the other hand, the following are the least coping mechanisms adopted by the students: Since I do not have any gadgets such as phone or laptop for my online learning, I borrow from my relatives who has one (2.17); since my communication with my classmates is affected due to low internet connection, I go to their houses instead (2.30); when I do not make my task on time or delay the submission until the deadline, I ask for extension and understanding to the teachers (2.40).

TABLE 6. COPING MECHANISM IN ONLINE LEARNING n=255

Coping Mechanism	Mean	Descriptive Interpretation
1. I do not have a good internet connection at home, so I figure out the time of the online classes and go to a place where the signal is good or even go to the computer shops.	2.90	Often
2. The weak signal in my place affects my participation in online learning so I hold myself accountable and find ways to cope up even if the internet connection is not good such as going to an internet café.	2.85	Often.
3. I find it hard to access my computer or cellphone, so I search online videos to know more about my gadgets.	2.51	Rarely
4. Since I do not have any gadgets such as phone or laptop for my online learning, I borrow from my relatives who has one.	2.17	Rarely
5. Since I find it hard to follow the instructions of the teacher, I sometimes call or text them for clarification.	2.46	Rarely
6. I eliminate distractions such as deleting applications like mobile legends just too focus on my studies.	2.87	Often
7. I ask my classmates or ask Google instead.	2.75	Often
8. Since collaboration with my friends is not affected even in online learning, I am confident to be able to pass my subject.	2.76	Often
9. Since my communication with my classmates is affected due to low internet connection, I go to their houses instead.	2.30	Rarely
10. When I am not motivated to attend virtual classes, I think of my future and my family’s sacrifices.	3.24	Often
11. When I do not make my tasks on time or delay the submission until the deadline, I ask for extension and understanding to the teacher.	2.40	Rarely
12. Since I am not happy with online learning, I will raise this problem to the administration and suggest other solution.	2.44	Rarely

Legend

Value	Range	Descriptive Interpretation
4	3.26-4.00	Always
3	2.51-3.25	Often
2	1.76-2.59	Rarely
1	1.00-0.75	Never

Verbal description

- Problem encountered daily inflexible learning.
- Problem encountered in flexible learning twice or thrice a week.
- Problem encountered in flexible leaning once a wee
- Never encountered any problem in flexible learning.

B. Coping mechanisms in Modular Learning

In the modular learning, self-learning modules are a given to students to supplement the gap of online classes. Criminology students based on the study faced challenges to

cope up. However, despite this problems, they were able to cope up with their lessons. Table 7 are the results of the coping mechanisms of the student in this mode of learning.

TABLE 7 COPING MECHANISMS FROM PROBLEMS ENCOUNTERED

n=225

Coping Mechanisms	Mean	Descriptive Interpretation
1. I organize the module in a way that I start with the hardest down to the easiest and highlight important information with different ballpens or highlighters to quickly identify details.	3.16	Often
2. I keep notes in my notebooks especially difficult terms/concept I am not familiar with and ask them to my teacher.	2.99	Often
3. I take note of the assessment/task given and ask for clarification from the teacher.	2.98	Often
4. I contact my teacher as much as possible to provide information.	2.66	Often
5. I will do time-management in my studies to accomplish all the tasks given to me and answer them independently	3.24	Always
6. I engage in physical activities to motivate myself to keep my mind focus on the modules given to me.	3.10	Often
7. When the modules are not interesting, I search for other books either online or visit book shops to supplement my learning.	2.61	Often
8. I created a study place and stay organize to cope up with the time constraint impose by modular learning and practice time-management.	3.05	Often
9. I ask the teacher directly if he/she do not give feedback immediately.	2.35	Rarely
10. I take note of the information and ask for teacher’s guidance.	2.77	Often
11. I ask for the teacher’s instruction and even contact the student organization to provide me access to the modules.	2.61	Often
12. I ask for teacher’s approval and positive remarks to keep me motivated.	2.61	Often

Legend

Value	Range	Descriptive Interpretation
4	3.26-4.00	Always
3	2.51-3.25	Often
2	1.76-2.59	Rarely
1	1.00-0.75	Never

Verbal description
Problem encountered daily inflexible learning.
Problem encountered in flexible learning twice or thrice a week.
Problem encountered in flexible leaning once a wee
Never encountered any problem in flexible learning.

In the modular learning, the results indicated that the following mechanisms are the strategy adopted by the students to cope up with the learning process: *I will do time-management in my studies to accomplish all the tasks given to me and answer them independently (3.24); I engage in physical activities to motivate myself to keep my mind focus on the modules given to me (3.10); I created a study place and stay organize to cope up with the time constraint impose by modular learning and practice time-management (3.05).* In time management, Todorov (2017) said that in online learning, time management is essential. Accordingly, with regular classroom learning, every student has a specific place and needs to be at a specific time. But, learning online requires student to set aside some time on their own to study and go through the lessons. This requires discipline and a real understanding about how to wisely use time throughout the day. In the modular learning, Gillin (2020) said that it is necessary to note that physical activity helps with brain function and cognition. When compared to those with lower fitness levels, those with higher fitness levels get higher ratings and test scores. On a more immediate basis, physical activity also increases concentration and attention, which directly impacts learning preparedness.

In addition, the following are the other coping mechanisms adopted by the students: *I keep notes in my notebooks especially difficult terms/concept I am not familiar with and ask them to my teacher (2.99); I take note of the*

assessment/task given and ask for clarification from the teacher (2.98); I take note of the information and ask for teacher’s guidance (2.77); I contact my teacher as much as possible to provide information (2.66); when the modules are not interesting, I search for other books either online or visit book shops to supplement my learning (2.61); I ask for the teacher’s instruction and even contact the student organization to provide me access to the modules (2.61); I ask for teacher’s approval and positive remarks to keep me motivated (2.61). The least coping mechanisms adopted by the student in the modular learning is: *I ask for the teacher’s directly is he/she do not give feedback immediately (2.35).*

Effect of Flexible Learning

The results show the impact of the flexible learning to the Criminology students’ financial, psychological and academic performance.

A. Financial Effect of Flexible Learning

In the attempt to slow the spread of virus institutions have adapted flexible learning. This shift impacted wreaked havoc on the financial situation of every family. Back to school is already a costly time of year. The additional requirements for successful learning through distance are strapping parents of cash more than ever before, especially for low-income families. The effect of flexible learning on the financial aspect of the students are presented in table 8

TABLE 8. FINANCIAL EFFECT OF FLEXIBLE LEARNING n=225

Variable	Mean	Descriptive Interpretation
1. I spent a lot of money on online class.	3.15	Agree
2. When online class started, it affected my day-to-day decision on where my money goes.	2.98	Agree
3. I am spending money lesser as compared to going to school every day.	2.85	Agree
4. I never spent more than my day-to-day allowance in a week for online class.	2.78	Agree
5. I borrowed money just so I could participate in the online class.	2.81	Agree

Legend

Value	Range	Descriptive Interpretation	Verbal description
4	3.26-4.00	Strongly Agree	Problem encountered daily inflexible learning.
3	2.51-3.25	Agree	Problem encountered in flexible learning twice or thrice a week.
2	1.76-2.59	Disagree	Problem encountered in flexible learning once a week
1	1.00-0.75	Strongly Disagree	Never encountered any problem in flexible learning

Results show that students have spent lot of money on online class comparing it to the tradition class as seen in the mean score of 3.15. The flexible learning also affected their daily spending allowances and some borrowed money to participate in online class.

B. Psychological Effect of flexible learning

This pandemic carries not only the risk of death from a viral infection but also psychological stress for people specially the students (Xiao, 2020).

TABLE 9. PSYCHOLOGICAL EFFECT OF FLEXIBLE LEARNING n=225

Effect	Mean	Descriptive Interpretation
1. I never had mental block when discussion is happening in online learning.	2.54	Agree
2. Flexible learning affected my physical weight.	2.66	Agree
3. I think I was more physically and mentally active in traditional classroom than flexible learning.	3.28	Agree
4. I have spent my days questioning what I have learned and making good progress with my studies.	3.12	Agree
5. I feel more confident and safer when I am in my home and interacting online.	2.92	Agree

Legend

Value	Range	Descriptive Interpretation	Verbal description
4	3.26-4.00	Strongly Agree	Problem encountered daily inflexible learning.
3	2.51-3.25	Agree	Problem encountered in flexible learning twice or thrice a week.
2	1.76-2.59	Disagree	Problem encountered in flexible learning once a week
1	1.00-0.75	Strongly Disagree	Never encountered any problem in flexible learning

The results show that Criminology are somewhat affected psychologically for they mentioned that they are more physically and mentally active in traditional classroom than flexible learning as shown in the mean score of 3.28. Also, student agreed that flexible learning had affected their physical weight (2.66) and most respondents agree that they have spent their days questioning what they have learned and making good progress with their studies (3.12).

collaborate to solve this problem by providing psychological services (Irawan, Dwisona, & Lestari, M, 2020).

Interestingly, Criminology students agree that most of them did not experience having mental block when discussion is happening in online learning and they feel more confident and safer when they are at home and interacting online.

C. Effect of Flexible Learning in their Academic Performance

Flexible learning has been implemented all throughout the world for students to obtain their education amidst the breakout of COVID-19. Academic performance of the students is expected to be affected in this mode of learning. Interestingly Criminology students are not that affected academically in the adaption of flexible learning as presented in table 10.

TABLE 10. EFFECT OF FLEXIBLE LEARNING ON ACADEMIC PERFORMANCE n=225

Effect	Mean	Descriptive Interpretation
1. My scores in my quizzes/long exams increased during the onset of flexible learning.	2.61	Agree
2. I feel more confident that I have learned tremendously and can elaborate on topics when questioned	2.71	Agree
3. I think that I will pass my subject without any failing grade.	2.76	Agree
4. I am happy with flexible learning because of great academic performance.	2.49	Disagree
5. I feel no pressure at all with flexible learning because I am learning as much as in traditional/face to face interaction.	2.54	Agree

Legend

Value	Range	Descriptive Interpretation	Verbal description
4	3.26-4.00	Strongly Agree	Problem encountered daily inflexible learning.
3	2.51-3.25	Agree	Problem encountered in flexible learning twice or thrice a week.
2	1.76-2.59	Disagree	Problem encountered in flexible leaning once a week
1	1.00-0.75	Strongly Disagree	Never encountered any problem in flexible learning

Based on the result students agreed that they feel confident that they learned something and can elaborate on topics when questioned. Moreover, the respondents agree that they will pass their subjects without a failing grade. In addition, criminology students do not feel pressure at all because they are learning as much in traditional face to face interaction. However, disagreed that they are happy with flexible learning even if they have great academic performance.

V. SUMMARY, CONCLUSIONS, AND RECOMMENDATION

This chapter presents the summary of findings, conclusion, and recommendation of the study.

Summary of Findings

This study was undertaken to determine effect of flexible learning to the Criminology students of the Data Center College of the Philippines. The study employed descriptive research utilizing a online questionnaire to gather data.

The salient findings of the study were:

Demographic Profile. The age of the criminology students of DCCP Laoag City Inc. ranges from 20 to 27 years old with a mean of 20 years old. Majority of the respondents are male (57.33%). In terms of type of locality, majority (61.77%) are from the rural area and 38.22 % of them lives in the urban area. Almost all respondents (72.90%), in terms of social class, belong to the poor classification based on PDIS 2018 tool.

Problems Encountered in the Flexible Learning. The criminology students are experiencing various difficulties in the adaptation of flexible learning particularly in the online learning and modular learning.

In the online learning, the most pressing problems are: *having weak signal, not good internet connection and problems accessing the computer/gadget for online learning*

Whereas in the modular learning the following problems prevailed: *module is hard to understand and needs teacher’s guidance, and tasks need to be done should be with teacher’s intervention.* Criminology students are hard up in understanding modules so they need teacher’s intervention and guidance.

Coping Mechanisms. Coping mechanisms of the Criminology students towards problems encountered in the flexible learning. The criminology students, despite of the problems encountered were able to cope up with the lessons in the flexible learning.

In the online learning, Criminology students when not motivated tends to think of their future and sacrifices of their families. In addition, students with internet problems at home tend to look for a place with strong signal or they go to computer shops just to attend their classes. To be able to cope up and to be focused on their studies, online game applications were un installed, and for hard topics, they asked their classmates about it or search the hard topic in the Google and study them.

In the Modular Learning, Criminology students do time-management to accomplish all the tasks given to them, they also engage in physical activities to make them focused on their studies, in addition they also created a study place to do their tasks.

Effects of Flexible learning to the Criminology students to their financial, psychological and academic performance.

In the effect of flexible learning on the finances of the students, they agreed that they are spending more money in the online class comparing it to the traditional class as seen in the mean score of 3.15. In addition, flexible learning also affected their daily spending allowance, some even resort to borrowing just to participate online classes.

In the effect of flexible learning on the psychological performance of the student, the results showed that they are somewhat affected psychologically, physical and mental, for according to them with a mean score of 3.28, they are more

active physically and mentally in a traditional classroom setting comparing it to the new normal of education.

In the effect of flexible learning on their academic performance, study shows that majority of the students still believe they will pass the semester without failing grades even though they disapprove the flexible learning system.

Conclusion

The study yielded that Criminology students encountered problems in the adaptation of flexible learning. However, despite the problems they were able to cope up. It is also yielded in the study that the flexible learning of students affected them financially and psychologically, however their academic performance is not that affected. Based on the findings, it can be concluded that there is a need to formulate an action plan that bridges the gap of flexible learning, a plan that can help students adapt efficiently and effectively flexible learning.

Recommendation

Based on the data, findings and conclusions, a more complex and elucidative study should be conducted to unlock the real effect of flexible learning. To enhance the effectiveness of the adaptation of the flexible learning, the researcher recommended the following:

1. The DCCP management to consider the issues and problems faced by the students in flexible learning, such as internet connectivity, computer literacy and teacher-student relationship should be improved.
2. The students having weak internet connectivity should tap local government units, the school administrator and other agencies that can render help into their problems.
3. For the teacher to be more considerate towards their students' situation.
4. For the conduct of flexible learning:
 - In the online learning, a more realistic set-up should be developed like production of pre-recorded videos. This will be more of help rather than have synchronous discussion in the Zoom, Google Meet or etc.
 - In the modular learning, there should be pre-recorded videos highlighting the instructions and the things that needs to be accomplished by the students.
5. The DCCP management to consider the implementation of the proposed action plan made so that there is improvement in the learning environment of criminology student.

REFERENCES

[1]. Allen, D.W. & P.R. Christensen. (1974). Using, time, space and people effectively. In: Allen, D.W. & J.C. Hect (eds.), *Controversies in Education*. New York, W.B. Saunders.

[2]. Abdous, M. and CJ. Yen. (2010). A predictive study of learner satisfaction and outcomes in face-to-face, satellite broadcast, and live video-streaming learning environments. *The Internet and Higher Education*, 13 (4), 248–257.

[3]. Anderson, T. (2003). Getting the mix right again: An updated and theoretical rationale for interaction. *The International Review of Research in Open and ...* article.

[4]. Asterhan, C., & Hever, R. (2015). Learning from reading argumentive group discussions in Facebook: Rhetoric style matters (again), 53, 570–576. article. <http://doi.org/10.1016/j.chb.2015.05.020>

[5]. Cornford, Ian R. (1997) Ensuring effective learning from modular courses: a cognitive, *Journal of Vocational Education & Training*, 49:2, 237–251, DOI: [10.1080/13636829700200014](https://doi.org/10.1080/13636829700200014)

[6]. Chou, C., Peng, H., & Chang, C. Y. (2010). The technical framework of interactive functions for course-management systems: Students' perceptions, uses, and evaluations. *Computers and Education*, 55(3), 1004–1017. <http://doi.org/10.1016/j.compedu.2010.04.011>

[7]. Damianov, D. S., Kupczynski, L., & Calafiore, P. (2009). Time spent online and student performance in online business courses: A multinomial logit analysis. *Journal of Economics ...* article.

[8]. Dochy, F. J. et al. (1989). Modularisation and Student Learning in Modular Instruction in Relation with Prior Knowledge. Open Univ., Heerlen (Netherlands). Centre for Educational Technological Innovation.

[9]. Dawson, S. P., E, M., & Tan, J. P. L. (2008). Teaching smarter: How mining {ICT} data can inform and improve learning and teaching practice. article.

[10]. Ellis, R, A Pardo and F Han [2016] Quality in blended learning environments — Significant differences in how students approach learning collaborations. *Computers Education*, 102, 90–102. Available at <http://doi.org/10.1016/j.compedu.2016.07.006>. Accessed on 15 September 2017.

[11]. Evans, C., & Sabry, K. (2003). Evaluation of the interactivity of web-based learning systems: Principles and process. *Innovations in Education and Teaching ...* article. <http://doi.org/10.1080/1355800032000038787>

[12]. Eom, S. B., Wen, H. J., & Ashill, N. (2006). The determinants of students' perceived learning outcomes and satisfaction in university online education: An empirical investigation. *Decision Sciences Journal of ...* article. <http://doi.org/10.1111/j.1540-4609.2006.00114.x>

[13]. Garrison, D. R., & Vaughan, N. D. (2008). *Blended learning in higher education: Framework, principles, and guidelines*. *booksgooglecom* (Vol. 1st). Retrieved from <http://www.amazon.com/dp/0787987700>

[14]. Gradel, K., & Edson, A. J. (2010). Cooperative Learning: Smart Pedagogy and Tools for Online and Hybrid Courses, 39(2), 193–212. article. <http://doi.org/10.2190/ET.39.2.i>

[15]. Higgins, E. Tory. 1987. Self-discrepancy: A Theory Relating Self and Affect. *Psychological Review* 94 (3): 319–340.

[16]. Jenkins, F. (2014). Epistemic credibility and women in philosophy. *Australian Feminist Studies*, 29, 161-170. doi:10.1080/08164649.2014.928190

- [17]. Kang, M., & Im, T. (2013). Factors of learner instructor interaction which predict perceived learning outcomes in online learning environment, *29*(3), 292–301. article. <http://doi.org/10.1111/jcal.12005>
- [18]. Kayode, E.-O., & Teng, T.-L. (2014). The impact of transactional distance dialogic interactions on student learning outcomes in online and blended environments. *Comput Educ*, *78*, 414–427. article. <http://doi.org/10.1016/j.compedu.2014.06.011>
- [19]. Kirem, S. (2015). 5 common problems faced by students in elearning and how to overcome them. Article. Retrieved from <https://elearningindustry.com/5-common-problems-faced-by-students-in-elearning-overcome-on-November-11,2020>
- [20]. Kent, C., Laslo, E., & Rafaei, S. (2016). Interactivity in online discussions and learning outcomes. *Comput Educ*, *97*, 116–128. article. <http://doi.org/10.1016/j.compedu.2016.03.002>
- [21]. Kostantinidis, A. (2005). Learning Theories and Their Effects on Educational Software Design (Dissertation, Aristotle University of Thessaloniki, 2005).
- [22]. Lee, J., & Bonk, C. J. (2016). Social network analysis of peer relationships and online interactions in a blended class using blogs. *The Internet and Higher Education*. article.
- [23]. Lindeman, M et al. (2002) Strength and weaknesses of online learning. Retrieve from <https://www.uis.edu/ion/resources/tutorials/online-education-overview/> on November 01, 2020.
- [24]. Liu, M. (2016). Blending a class video blog to optimize student learning outcomes in higher education. *Internet High Educ*, *30*, 44–53. article. <http://doi.org/10.1016/j.iheduc.2016.03.001>
- [25]. Lou, Y, RM Bernard and PC Abrami [2006] Media and pedagogy in undergraduate distance education: A theory-based meta-analysis of empirical literature. *Educational Technology Research and Development*, *54* (2), 141–176. Available at <http://doi.org/10.1007/s11423-006-8252-x>. Accessed on 15 September 2017.
- [26]. Macfadyen, L. P., & Dawson, S. (2010). Mining {LMS} data to develop an “early warning system” for educators: A proof of concept, *54*(2), 588–599. article. <http://doi.org/10.1016/j.compedu.2009.09.008>
- [27]. Mitchell, A., & Honore, S. (2007). Criteria for successful blended learning. *Industrial and Commercial Training*. article. <http://doi.org/10.1108/00197850710742243>
- [28]. Means, B, Y Toyama, R Murphy, M Bakia and K Jones (2009) Evaluation of evidence-based practices in online learning: A meta-analysis and review of online learning studies. U.S. Department of Education. Available at <http://files.eric.ed.gov/fulltext/ED505824.pdf>. Accessed on 15 September 2017.
- [29]. Moallem, M. (2003). An Interactive Online Course: A Collaborative Design Model. *Educational Technology Research and Development*, *51*(4), 85–103. Retrieved from <http://www.scopus.com/inward/record.url?eid=2-s2.0-1142277588&partnerID=40&md5=c34c96b89db8ec437d9521eaaacd2f4>
- [30]. Morris, LV, C Finnegan and SS Wu [2005] Tracking student behavior, persistence, and achievement in online courses. *Internet and Higher Education*, *8* (3), 221–231. Available at <http://doi.org/10.1016/j.iheduc.2005.06.009>. Accessed on 15 September 2017.
- [31]. Nandi, D., Hamilton, M., Harland, J., & Warburton, G. (2011). How active are students in online discussion forums?, 125–134. article.
- [32]. Picciano, A. G. (2017). Theories and frameworks for online education: Seeking an integrated model. *Online Learning*, *21*(3), 166–190. doi: 10.24059/olj.v21i3.1225
- [33]. Ramos, C., & Yudko, E. (2008). {"Hits"} (not {"Discussion"} Posts”) predict student success in online courses: A double cross-validation study. *Comput Educ*, *50*(4), 1174–1182. article. <http://doi.org/10.1016/j.compedu.2006.11.003>
- [34]. Russo, T and S Benson [2005] Learning with invisible others: Perceptions of online presence and their relationship to cognitive and affective learning. *Educational Technology and Society*, *8*(1), 54–62. Available at http://doi.org/ica_proceeding_11822.PDF. Accessed on 15 September 2017.
- [35]. Steel, C., Keppell, M., Gerbic, P., & Housego, S. (2010). Curriculum, technology & transformation for an unknown future. Proceedings ascilite Sydney 2010. *Ascilite 2010*. article.
- [36]. Schrire, S. (2006). Knowledge building in asynchronous discussion groups: Going beyond quantitative analysis. *Computers & Education*. article.
- [37]. Shurville, S., O'Grady, T., and Mayall, P. (2008). Educational and institutional flexibility of Australian Educational Software. *Campus-Wide Information Systems*, Emerald Group Publishing Limited, *25* (2), 74–84.
- [38]. Song, L., & SW, M. (2011). Understanding students' online interaction: Analysis of discussion board postings. *Journal of Interactive Online Learning*. article.
- [39]. Sparrowe, R. T., Liden, R. C., Wayne, S. J., & Kraimer, M. L. (2001). Social networks and the performance of individuals and groups. *Academy of Management Journal*, *44*(2), 316–325. <http://doi.org/10.2307/3069458>
- [40]. Strauman, Timothy J. 1992. Self-guides, Autobiographical Memory, and Anxiety and Dysphoria: Toward a Cognitive Model of Vulnerability to Emotional Distress. *Journal of Abnormal Psychology* *101*: 87–95.
- [41]. Weegar, M.A. & Pacis, D. (2012). A Comparison of Two Theories of Learning - Behaviorism and Constructivism as applied to Face-to-Face and Online Learning. Presented at the E-Leader Conference. Manila, Philippines.
- [42]. Wei, H.-C., Peng, H., & Chou, C. (2015). Can more interactivity improve learning achievement in an online course? Effects of college students' perception and actual use of a course-management system on their learning achievement. *Comput Educ*, *83*, 10–21. article. <http://doi.org/10.1016/j.compedu.2014.12.013>

- [43]. Yang, J., Quadir, B., Chen, N.-S., & Miao, Q. (2016). Effects of online presence on learning performance in a blog-based online course. *Internet High Educ*, 30, 11–20. article. <http://doi.org/10.1016/j.iheduc.2016.04.002>
- [44]. Zacharis, N (2015). A multivariate approach to predicting student outcomes in web-enabled blended learning courses. *The Internet and Higher Education*, 27, 44–53. Available at <http://doi.org/10.1016/j.iheduc.2015.05.002>. Accessed on 15 September 2017.
- [45]. Todorov, G. (2017). The Importance Of Time Management In Online Learning. eLearning Industry. Retrieved from: <https://elearningindustry.com/time-management-in-online-learning-importance>
- [46]. Gillin, H. (2020). Integrating Physical Activity Into Distance Education. Texas A&M Today. Retrieved from: <https://today.tamu.edu/2020/04/08/integrating-physical-activity-into-distance-education/>
- [47]. Xiao, C. (2020). A novel approach of consultation on 2019 novel coronavirus (COVID-19)- related psychological and mental problems: structured letter therapy. *Psychiatry Investigation*,
- [48]. Irawan, A, Dwisona, D., & Lestari, M (2020). Psychological Impacts of Students on Online Learning During the Pandemic COVID-19. *KONSELI : Jurnal Bimbingan dan Konseling (E-Journal)*. 7. 53-60. [10.24042/kons.v7i1.6389](https://doi.org/10.24042/kons.v7i1.6389).

Proposed Action Plan That Will Bridge, The Gap of Flexible Learning

Action Plan Rationale

Technology always had an important role in the educational arena. Cheap electronic devices are everywhere, and internet connectivity is becoming increasingly common and important more than ever. Face it or not, technology is here to stay and will continue to be an alternative method of learning. Most especially if a pandemic occurs again like the Covid-19, which shifted educational and traditional curriculum of this generation. In line with this, the research created on action plan that can bridge the gap of flexible learning.

Objectives

The general objective of this action plan is to bridge the gap of flexible learning based on the problem that are encountered by criminology students.

Specific objectives include:

- a. To ease the gap of online learning through production of pre-recorded videos.
- b. To ease the gap of modular learning through creating individualize self-learning modules.
- c. To normalize flexible learning as an option for future students who wants this kind of set-up.
- d. To increase the knowledge of students on technology/computer literacy subjects.

Strategies

The following are the strategies which will facilitate the bridging of the gap of flexible learning to the students, teachers, and administration of the school.

- a. Coordinate with the school administration to conduct seminars and trainings for teachers, on pedagogical approaches relevant to flexible learning and especially on creating pre-recorded videos which students can easily download, copy, and share.
- b. Coordinate with the school administration and It department to make an application that will be utilized as an online learning haven for students.
- c. Coordinate with the student council to conduct seminars on computer and technology literacy.
- d. Coordinate with internet providers to sponsor internet connectivity to far-flung areas.
- e. Coordinate with local government unit in distributing self-learning modules.

Proposed Action Plan That Will Bridge The Gap of Flexible Learning (MATRIX)

Proposed Action Plan on Bridging the Gap of Flexible Learning

Activity	Area of Concern	Objective	Strategy	Time Frame	Materials Needed/Budget Allocation	Responsible Person/Agencies
Seminar and Training	Technological/Computer Literacy of Students	To increase the knowledge of students on technology/computer literacy subjects.	Coordinate with the student council to conduct training and seminar. Tap the administration for funding.	February-March 2021	PowerPoints , Internet connectivity, Speakers, etc. 10, 000	College Student Council Data Center Administration School Heads
Seminar and Training	Pedagogical Approaches and Pre-recorded Videos	To ease the gap of online learning through production of pre-recorded videos. To effectively teach through flexible learning modality.	Coordinate with the school administration to conduct seminars and trainings for teachers, on pedagogical approaches relevant to flexible learning and especially on creating pre-recorded videos which students can easily download, copy and share. Coordinate with the school administration and computer science to make an application that will be utilized as an online learning haven for students.	February 2021	PowerPoints , Internet connectivity, Speakers, etc. 20, 000	Data Center Administration School Heads