INVESTIGATING THE CHALLENGES OF CRIMINOLOGY STUDENTS IN THE COURSE OF QUESTIONED DOCUMENT EXAMINATION

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Abstract

The sudden swift away from classrooms due to the pandemic outbreak, students and faculty members had greatly challenged in the lectures, practical examination of documents; presentation of examined signatures and; submissions of specimens used in signature and document comparison. This qualitative research used thematic analysis in describing the challenges among the third-year students who were enrolled in Forensic Questioned Documents Examination at the Data Center College of the Philippines. The researcher found out several themes under the category of lectures which includes: Accessibility of recorded discussion and limited lecture time; while in the Assessment this includes: themes of multiple online platforms and platform interruptions and lastly, as to Laboratory activity, themes were identified as development and reliability of specimens, quality resolution of uploaded standard specimen and self-study in which it was attributed to the problems encountered by the students in the course of Forensic Questioned Document Examination. Hence, the result of the study implied that creation of a system with specialized features intended for signature/handwriting comparison is highly encouraged.

Keywords: Questioned Document Examination; signature; online platform;

1. Introduction

The road to becoming an expert on questioned documents is long and difficult due to the emergence of Covid-19 pandemic. The urged to explore innovative learning modalities transitioning from traditional to flexible teaching and learning options lead to the promulgation of the Guidelines on Flexible Learning to be implemented by public and private Higher Education Institutions (HEIs) Number 04 series of 2020. Thus, highlighted the role of technology in education channeled in the online learning system.

The Forensic Document Examination course demands actual experience in laboratory work. The concept of the actual experience is to engage students in demonstrating the scientific methods and discipline in identifying characteristics and techniques in examination and comparison of documents and handwritings. On the other hand, private and universities offering BS Criminology are greatly challenged in facilitating classes and laboratory activities due to the limited resources in flexible learning set ups.

According to new research, new media is both augmenting and extending the traditional classroom with a variety of technology-based tools available to both students and faculty, and has created "new" virtual classrooms for anywhere, anytime availability to education (Stewart et al., 2010b). During the pandemic, zoom and google meet were the most common applications used in virtual class or the asynchronous method of teaching and learning. The most suited for interactive online teaching is Zoom Meetings, while Zoom Webinars are better for lectures. Teachers can choose with which to work at any given time. Zoom Meetings have practical features that make online teaching easier, such as breakout rooms. These help teachers separate the students into groups, much like you would do in a normal classroom setting. There are two ways of using Zoom; Meetings and Webinars.

Meanwhile, in Google Meet features users will be able to easily schedule video conferences, in addition to video calling to instantly connect with a person or group. In Australia, webbased lecture technologies gained demand for using the tool for delivering lecture recordings to students in close real time. It was also reported that both internal and external students were both positive beneficiaries of the technologies for the learning and adopted similar strategies for their use (Woo et al., 2008b). This shows that digital media and mobile technologies provide youth with the ability to interact with others at their convenience, with time and place posing no hurdle. Likewise, in the e-learning process of education it offers the ability to facilitate online courses, share learning material in all kinds of formats, creating activities or laboratories, quizzes and examinations. Meanwhile, in the research of Gocotano et al., 2021 accorded that, students experienced the unavailability of a network, economic instability, digital divide, the shortage of digital devices, distractive learning environment, expensive internet data, health-related problems, lack of resources, lack of digital literacy skills, and loss of motivation. There are still students who are less satisfied with online classes than the traditional face-to-face learning environment due to deprivation of the education resource materials. The inadequacy of systematic academic development in teaching and learning may affect the students' academic performance. Thus, the Investigation of the challenges of Criminology students in the course of Forensic Document Examination is of great importance to address the gaps and resources needed to improve the capabilities of the institution.

2. Statement of the Problem

Due to the changes of the academic instruction in different colleges and universities caused by the pandemic. The research would like to investigate the challenges faced by the criminology students in the course of Questioned Document Examination. This study sought to know the following questions:

1. What are the problems encountered by the Criminology students of the Data Center college of the Philippines in the course of Forensic Questioned Document Examination as to:
   a. Lectures
   b. Assessment
   c. Laboratory activities

2. What learning management system can be developed for the Questioned Document Examination?

3. Theoretical Framework

In 2004, George Siemens proposed the theory of connectivism that takes the new trends in learning, the use of technology and networks, and the diminishing half-life of knowledge. It suggests that learners create knowledge as they attempt to understand their experiences. This theory of connectivism posits that the use of digital technology helps to solve problem and, in turn, deepens the understanding of a topic.

4. Scope and Delimitation

The scope of the study involves the investigation on the challenges of the criminology students in the course of Forensic Document Examination. The respondents were at least enrolled in Forensic Document Examination by means of flexible learning modality in Data Center College of the Philippines, Laoag City.

5. Significance of the Study

The result of this study will benefit the following:

Students. The study will help the students to adopt the modern learning modality. The student would be able to know how to overcome the possible struggles in the new trend or e-learning in education. The exposure of student will guide them to build their accountability and responsibility in this mode of education in many ways.

Teachers. This study will provide wider understanding on the situation of students during the online class. They can also learn significant information about their student and class set up that might help them cope up with their experience. Hence, will guide teachers to work productively using the online and traditional education at the same time.

School. This study will encourage the school to design online learning platform for their faculty and students. This study is beneficial to them to create more innovative design particularly in their respective subject course.

6. Definition of Terms

Accessibility. This refers to the ability to access resources, navigate and interact with the preferred e-learning platforms using technology by all learners during flexible learning activities and assessment.

Forensic Questioned Document Examination. This refers to the course subject of the Criminology students that examines different kind of document, handwriting and signature. Thus, this involves investigating whether forgery exist and identifying the author of a handwriting.

Online Learning. This refers to a learning environment that uses the Internet and other technological devices and tools for synchronous and asynchronous instructional delivery and management of academic program

Online Platform. This refers to the application or system used in an e-learning.

7. Review if Related Literature

Online learning offers teachers an efficient way to deliver lessons to students. Online learning has a number of tools such as videos, PDFs, words or excel, and teachers can use all these tools as part of their study plans. By extending the study plan beyond traditional textbooks to include online resources, teachers are able to become more efficient educators.

The advantage of online education is that it allows students to attend classes any location of their choice. Online lectures can be recorded, achieved and shared for future reference. This allows students to access the learning material in any time. Hence, it creates a paperless environment.

According to the new research, the education system has faced unprecedented health crisis (COVID-19 pandemic) has shaken up its foundation. Hence, different government across the globe have launched a crisis response to mitigate the adverse impact of the pandemic on education. This response includes, curriculum revisions, provision for technological resources and infrastructure, shifts in the academic calendar, and policies on instructional delivery and assessment. Inevitably, these developments compelled educational institutions to migrate to full online learning until face-to-face instruction is allowed. The current circumstance is unique as it could aggravate the challenges experienced during online learning due to restrictions in movement and health protocols (Gonzales et al., 2020; Kapasia et al., 2020). Eventually, digital transformation of higher education and challenged its ability to respond promptly and effectively. Many schools

adopted relevant technologies, prepared learning and staff resources, set systems and infrastructure, established new teaching protocols, and adjusted their curricula. However, the transition was smooth for some schools but rough for others, particularly those from developing countries with limited infrastructure (Simbulan, 2020). Schools and other learning spaces were forced to migrate to full online learning as the world continues the battle to control the vicious spread of the virus. Online learning refers to a learning environment that uses the Internet and other technological devices and tools for synchronous and asynchronous instructional delivery and management of academic programs (Usher & Barak, 2020; Huang, 2019). Synchronous online learning involves realtime interactions between the teacher and the students, while asynchronous online learning occurs without a strict schedule for different students (Singh & Thurman, 2019). Within the context of the COVID-19 pandemic, online learning has taken the status of interim remote teaching that serves as a response to an exigency.

8.   Methodology Research design

This case study research employed the semi-structured interview and adopted the thematic analysis to identify, analyse and report repeated patterns (Braun and Clarke 2006). This is also used to describe data which involves interpretation in the process of selecting codes and constructing themes. Hence, this qualitative research focused on describing the problems encountered by the Criminology students of the Data Center college of the Philippines in the course of Forensic Questioned Document Examination as to Lectures; Assessment and; Laboratory activities.

Participants of the Study

The study used the purposeful sampling technique. In this setting, the researcher is allowed to decide what needs to be known and sets out to find people who can and are willing to provide the information by virtue of knowledge or experience (*American Journal of Theoretical and Applied Statistics 2016)* Specifically, the inclusion criteria of participants were at least enrolled in the course of Forensic Document Examination by means of flexible learning modality.

9. Presentation and Data Analysis

Several themes emerged in this research. The participants stated that as to lectures, two themes were identified, the Accessibility of recorded discussion and limited lecture time; while multiple online platforms and platform interruption were themed under the category of assessment and lastly; as to laboratory activities, the theme of development and reliability of specimens and quality resolution of standard specimens for comparison and self-study attributed to the problems encountered by the students.

Theme: Lectures

Sub-theme: **Accessibility of recorded discussion**

Participants stated that some of the recorded discussions set by the instructors were not seen until before the major examination. In addition, students were out of date in their lectures due to the inaccessibility of the recorded discussion caused by the incompatibility of devices and online platforms used. One participant mentioned that sometimes recorded discussions were cut and left confusion on the related topic.

"We prefer to just read our modules because sometimes the recorded discussions are inaccessible. The files cannot support or be incompatible with the devised used." Participants narrated.

Sub-theme: **Limited lecture time**

As perceived by the participants, they claimed that in conducting their online lecture/class they used zoom meeting, google meet, YouTube and Facebook. However, according to them, the allotted time for their lecture is not enough. Questions were left unanswered.

Participants stated;

"Since our subject requires actual demonstration, our instructor has limited time to discuss or expound his/her topic. As compared to face to face class we are able to clarify every detail of the topic by asking her/him in person." Another participant also reported;

"In my case, since my internet connection is unstable. When the online class is done, it stops there. Not all students have the same strong connectivity."

Theme: Assessment Sub-theme: **Multiple online platform**

The participants reported that they experience confusion with the online platforms they use. According to them they use more than 4 platforms which includes, Facebook, Edmodo, Google drive, Google classroom and YouTube etc. They also admit that they are not very familiar with the platforms used, so sometimes it is inevitable that they will have problems accessing them especially when activities, quizzes and examinations. This might probably be the reason why they are no longer showing any interest in their class.

One participant reported;

"It's just confusing because we use different online platforms. If you are not updated on where to access lectures or quizzes you will surely be lost especially when the device you are using is not compatible with the platform."

Another participant said;

"Our problem as students is that we do not use only a centralized platform, at least we could use only one account. Then, we can avoid distraction and all our topics or activities are all organized and stored in one platform."

Sub-theme: **Platform Interruption**

Most of the participants' concern is their assessment platforms, due to the system breakdown they were not able to submit on time. It was also frustrating on their part that missing a major examination or quizzes will affect their performance in their class. They also claimed that sometimes the platforms they use are not user friendly, aggravated with unstable connection.

"It frustrates us because the platform we use is not user friendly. Although this only happens sometimes, it really has a declining effect on our class performance." Participants stated.

Participant added;

"What is difficult for us is when the submission is interrupted, most likely our assessments are considered not submitted which means we will automatically get zero score."

Theme: Laboratory activities

Sub-theme: **Development and Reliability of specimens**

Participants admitted that during their laboratory activities they used improvised materials. The source of their standard specimens is considered unreliable for what they only have is the scanned signature or handwriting in which it does not provide an accurate result of examination. Further, the lack of laboratory tools like magnifying glass, special lights and other instruments used in the actual activity reasoned for not applying the different techniques and principles of examination.

Participant said;

"We were quite unsatisfied with our laboratory activity because the specimens are not standard or genuine."

"Limited resources and specimen development were also our problems. Though our instructor provided us, they were just scanned and we just printed it." Participant added.

Sub-theme: **Quality resolution of uploaded standard specimen**

As stated by the participants, images of the specimen like signature or handwritings that were uploaded in the platforms are difficult to identify its characteristics because it lowers the resolution of the image. If the provided signatures were scanned, the color and pen emphasis of the signature specimen will change.

All participants stated;

"You can't really examine the specimen well because whether it's printed out or examined via computer to zoom in or out, it appears pixelated. Therefore, you cannot apply its thorough examination to the specimen."

10. Discussion

The integration of instructional technology, such as lecture videos, online course delivery and online assessments, has also been found to promote the development of knowledge and skills of instructors and students alike. One of the most efficient ways of disseminating information is conducting a lecture whether it is asynchronous or synchronous. Research shows that students were challenged by the inaccessibility of recorded discussions or course content due to the fact that not all students have consistent internet connection as well as a compatible device. Unfortunately, some students have limited access to the internet and sometimes do not have a compatible device to access their educational resources like lectures. Moreover, students assert that the lack of centralized platforms for the subject especially at times laboratory activities in the subject Questioned Document Examination and assessments provide unorganized submission and access to learning material in one place from any device. In some related studies, students who have shifted to an online-learning system thought of struggle and the experience of dissatisfaction of classes and lack of motivation. According to surveys, students prefer a personal interaction with their instructors to have enough discussions, for some, claimed to have a limited time particularly those subjects that needed a practical approach.

Additionally, student assessment is a fundamental aspect of instruction. As this new mode of instruction becomes more prevalent, it is concomitant to the common problems in online assessment like; cheating, time frame, unstable connectivity, power interruptions, multiple use and

sudden interruptions of platforms. Since online students cannot be directly monitored during assessments perhaps, taking advantage of the situation may sometimes complicate and result in a fraudulent test result.

The transition to online learning has also flaunted challenges in deciding which educational technology or platform is best suited for lecture, assessment and laboratory activities. For instance, in the actual examination of handwriting or signature, the availability of resources like specimens are considered to be unreliable as a consequence of using the digitized documents or signatures. In Forensic Document Examination, standard specimens shall obtain sufficiently to reach a conclusion that may range from identification or elimination. As observed in the examination of handwriting and signature, non-original things like photocopies or scanned documents may potentially lose some of details or information.

Thus, may actually affect the accuracy of the result on this account.

11. Conclusion

The unorganized submission of outputs due to the use of multiple online platforms affects the everyday performance of students in their respective subject specifically in the field of questioned documents. Also, it shows the inaccessibility of recorded lectures due to incompatibility of devices or uncontrolled down system of platforms. The study's findings indicate that the lack of systematic online platforms intended in the course subject can contribute struggles in an online learning set up.

12. Recommendation

Hence, the researcher would like to create a system/application that is intended to provide a classroom environment with specialized features in signature/handwriting comparison.

**Proposed Web-Based Application for Forensic Questioned Document Examination**
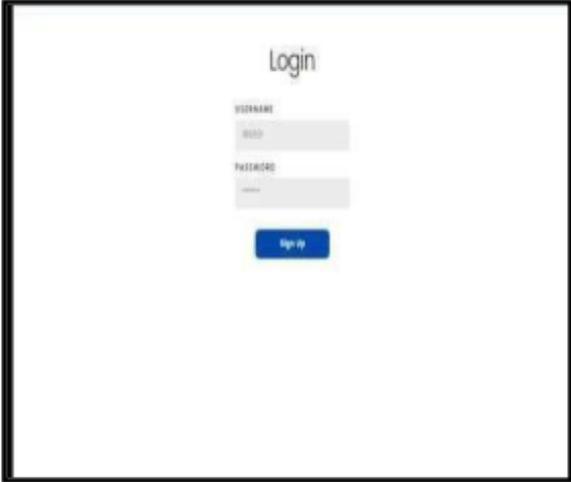

Figure 1. System Log in interface.
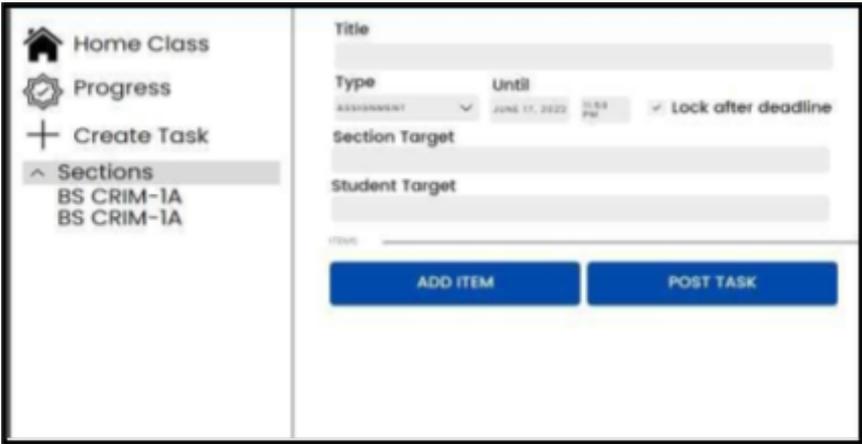
Figure 2. Instructor interface
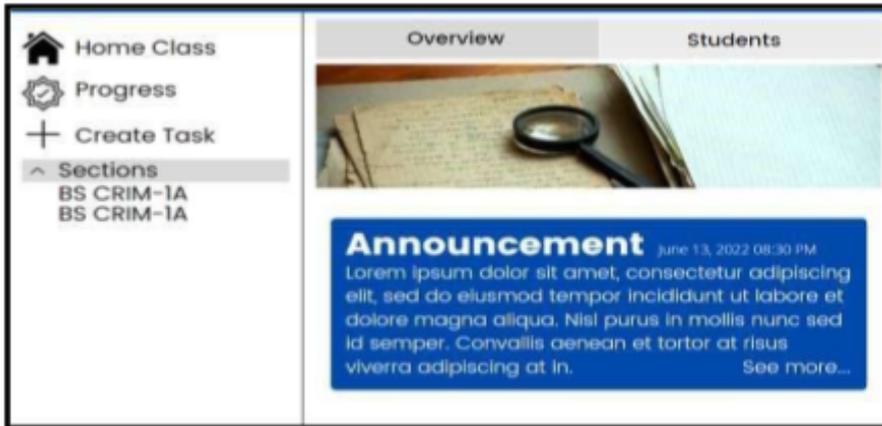
Figure 3. Student Overview
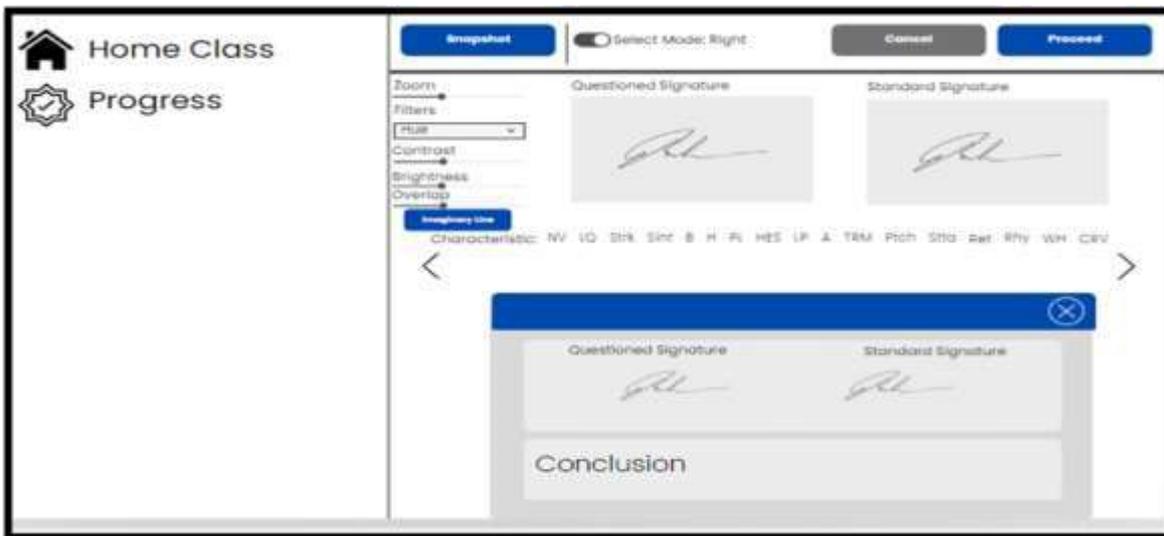
Figure 4. Comparison interface

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