

# Criminology Reviewer's Competencies and Study Skills Among Criminologists Licensure Examinees

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## ABSTRACT

This study aimed to assess the relationship between the reviewer's competencies and study skills among the two hundred forty-three (243) graduates (examinees) who took the review program conducted by PHINMA COC Criminology Review Center and took the licensure examination last December 2021 and June 2022. It was done to specifically assess the competencies of criminology reviewer in terms of knowledge of the subject matter, delivery of content, and assessment activity; to determine how respondents perceive their study skills in terms of time management and procrastination, concentration and memory; study aids and note-taking, test strategies and test anxieties, organizing and processing of information; and to find out if there is a significant relationship between the reviewer's competencies and study skills among criminologists licensure examinee. Moreover, the study employed a descriptive research design and used Google Forms as the main data-gathering tool.

The findings of the study revealed that the competencies of the Criminology reviewers have a significant impact on the study skills of the examinees. Also, reviewers need to expand their knowledge regarding the content to better enhance and prepare the examinees for the licensure examination. This can be addressed, though, by enhancing the knowledge on the subject by reiterating the content of the existing Table of Specifications duly approved and released by the Professional Regulatory Board of Criminology.

**Keywords:** competencies , criminology reviewers, study habits

## INTRODUCTION

### Background of the Study

The Criminologist Licensure Examination (CLE) is one of the Professional Regulatory Board (PRB) under the PRC. As such, it is the premier entity that manages, controls, and administers the Criminology profession in the country. It is also the primary examination conducted for those who aspire to become license criminologists among graduates who finish the Criminology Program. Sadly, out of 40,000 plus aspiring takers, only a few made and hurdled the battle. Just last December 2021, the first-ever board examination conducted after the different quarantine measures implemented in the country, the data from the Professional Regulation Commission (PRC) shows that for CLE, the national passing percentage for first takers is only 48.09%, 17.26% for repeaters, and overall performance of only 34.19%. It went even lower last June 2022, wherein the national passing percentage for first takers is only 42.96%, 21.56% for repeaters, and overall performance is only 30.39%.

During pre-pandemic times, the national passing percentage in the last six (6) licensure examinations in the last three years are as follows: November 2019 – 44.11%, June 2019 – 8.45%; December 2018 – 34.65%; June 2018 – 33.37%; December 2017 – 35.67%; and, June 2017 – 24.99%. Looking at the figures, there was no significant difference between the recent result in the licensure examination on December 2021 and June 2022, considering that these examinees were heavily affected by the lecturer (Criminology Reviewers) experienced dilemma as their teaching competencies being tested due to the existence of global pandemic. Due to an untimely situation, nonetheless, and despite the effort of competent review lecturers, underlying factors still need to be recalibrated to ensure the quality of learning processes. Technology use is also not visible until the global crisis occurs. Moreover, the application of Information Communication and Technology (ICT) in education is still new and instructors and learners are only familiar with the traditional technological teaching aids, such as Smartboards and PowerPoint. Still, their practical employability is required in teaching practices (Guillén-Gámez et al., 2018).

Meanwhile, the Criminology Program of PHINMA Cagayan de Oro College makes its way and produces a passing percentage above the national level. The recent examination in June 2022 made up to a 79.80% passing rate. It was even included in the top performing school at the national level with its top 4 last June 2019 and top 5 June 2018 and produced a good passing percentage during previous examinations as manifested as follows: November 2019 – 68.00%; June 2019 – 83.33%; December 2018 – 70.41%; June 2018 – 85.09%; December 2017 – 67.54%; June 2017 – 69.66%. The dilemma here, however, is that even though there is only roughly a 20% margin of students who fail since the number of takers is growing as years pass, it is projected that more students are still failing.

Since the School of Criminology and Criminal Justice Department of PHINMA Cagayan de Oro College is running its review program, it will be a good avenue to check the flexible teaching competency of the instructors and professors for those who are handling the review program. A good avenue to check the best practices of the program both during college days and review sessions considering the fact that the institution does not practice having a clear and defined entrance examination during enrollment. Thus, it accepts all students from all walks of life. They may be able to achieve a certain passing score and some degree of knowledge.

However, to graduate from the institution requires only a passing score of sixty (60), while the Professional Regulation Commission (PRC) requires a general weighted average of seventy-five (75). And since graduates finish the program differently – as others finish it for five (5) or even more instead of four (4) years as manifested in the curriculum, this may affect the student's performance and, thus, a good opportunity to look into to check the flexible learning teaching competencies of the reviewer if it has a positive impact on their study skills which in return, help them pass the board examination. Furthermore, to investigate deeper consideration on the matter, which should be improved to increase the passing percentage between 95% – 100%.

Being an educator requires significant knowledge and skills, making core competencies an inevitable instrument for positive change for students and their families (Zeiger, 2018). Especially since the arena of teaching is one of the most challenging professions during the pandemic, globally, it has caused significant interruptions in all aspects of human lives (Akram et al., 2021). In like manner, study skills are a set of transferable skills that enable individuals to study and learn efficiently (Skills You NEED, 2018). The skill set needed varies depending on the nature and circumstances affecting each student (Zeiger). This means that the characteristics and behavior of learners change over time, affecting their

study skills, such as listening, reading comprehension, note taking, stress management, time management, test taking, memorization, and others (Education Corner, 2022).

During the global crisis, the focus was more on upgrading the teaching competencies of the reviewers in response to the global restrictions of conducting face-to-face activities without looking into whether the study skills of the examinees were responsive to the adapted system. Further, most of the class engagement during lockdown utilizes ICT without looking at the capabilities of both reviewers and examinees. Though the passing percentage was good even in the last Board Examination (December 2021), there are still those who failed to pass the said examination, which should be taken into consideration to give life to the school's mission of making lives better through education. This raised the necessity for teachers to gain competency while applying ICT in their teaching practices and continuously improve the study skills among reviewees (Akram et al., 2021).

### **Literature and Related Studies**

Presenting the different related literature and studies that aided in providing substantive insights to further strengthen the result and discussion of this study.

### **Knowledge of the Subject Matter**

When it comes to the area of competency, knowledge of the subject matter is one factor that needs to be considered. To be effective, teachers must acquire a wide range of information, including facts, concepts, ideas, and vocabulary, according to the UNESCO International Institute for Educational Planning (2022). Teachers professional knowledge can impact all facets of teacher preparation and instruction, including how well they comprehend the curriculum and the function of textbooks. Knowledge of the subject matter, also known as content knowledge in some literature, refers not only to the body of knowledge but also to the knowledge that teachers impart to their students and that they are expected to learn in a particular subject or content area. Dimension refers to the intersection of emotions, knowledge, and experience in the context of subject knowledge. How kids think during the learning process is not entirely independent from other aspects of their thinking (Zhou, 2019).

Additionally, it was mentioned that the relationship between subject and pedagogical expertise is important for teachers to consider when making judgments on instructional strategies, materials, and student feedback. As a result, teachers' knowledge and communication skills are crucial to students' learning. This implies that as instructors work in their specialized domains and pursue the professionalization of teachers, they become more and more professionals. The ability of the teacher to use technology is part of professionalism. Zhou (2019) emphasized the value of teacher technology or the blending of technology and subject matter in his study.

Additionally, it was discovered that information technology impacts the nature and advancement of many subject areas. Technology and subject knowledge have long historical origins. This emphasizes the significance of the many online channels during the global crisis pandemic. In a study conducted by Lasley (2020) wherein he emphasized that for teachers to be successful, they must resolve first issues regarding pedagogical content (knowledge) as well as the general pedagogy which focus more on the generic teaching principles.

For teacher education to be effective at the micro level, such as in the classroom setting, it is necessary to comprehend what instructors must know and what enables them to apply knowledge. The subject matter is presented in varying degrees and ways in every field. This implies that distinct topic content

must pass different abilities in the context of classroom instruction, and the tools or information resources are characterized and presented. PPT presentations, Flash animation, and podcast videos are examples of universal software or resources (Zhou, 2019). In the recent study conducted by Luft (2020), she emphasized that any educator should know that content knowledge is important in teaching and they see subject matter knowledge as knowledge in the discipline taught by a teacher. He even added that there are different ways in which teachers are constrained in their subject matter knowledge.

In the most recent study by Jeschke et al. (2021), to teach effectively, it is emphasized that teachers must possess both subject-specific information (such as content knowledge and pedagogical content knowledge) and the ability to use that knowledge in challenging classroom scenarios. A teacher's competency should not be boiled down to information but rather manifests in the capacity to master the particular teaching needs in the classroom, according to recent studies that have added to the body of knowledge about instructors. Zhou (2019) posited that teachers must understand the significant impact of new technology on the subject knowledge system and the appropriate technology to utilize in each educational setting. This implies that a suitable technology or set of resources must exist to describe a particular instructional strategy. There is disagreement in the study as to whether this skill should be modeled as a general capacity or as a subject-specific ability (Jeschke et al., 2021). Møller et al. (2020) noted that instructors should explore innovative strategies, such as interactive online activities and case studies, to enhance the application of Knowledge in real-life scenarios during online review sessions.

### **Delivery of Content**

The University of Montevallo (2023) categorizes content delivery tools according to how learners are given the content. One tool that may be used to deliver information and content in various formats is content presentation. Buffalo University (2023) also emphasized the need to focus on teachers. As a result, delivery modes refer to how the course is given, while teaching approaches are the methods for delivering lessons and promoting learning. The way one chooses a teaching strategy or a mix of strategies, is influenced by their views on how people learn. Whether one intends to teach in person, online, or through another medium, this will impact the teaching style and the experiences given to students.

Additionally, the content will be supplied in various ways, whether asynchronously or synchronously. When students are studying collaboratively, the presentation of the teacher's lecture can also be used for the group's achievement report (Zhou, 2019). Dunn and Kennedy (2019) highlighted the benefits of incorporating technology in education and its impact on student engagement and learning outcomes.

According to the University of Buffalo (2023), situational factors are the context of the teaching scenario and the students' learning circumstances that will assist you in choosing the best instructional modality. While some aspects may be beyond your control, your instructional method may be predetermined. For instance, you may incorporate asynchronous online learning while delivering a face-to-face course. Learning outcomes can also be used to distinguish learning modes based on how complex the learning outcomes are. For instance, in a hybrid course, students may complete an online, asynchronous module to fulfill learning objectives linked to comprehending new material. During the following in-person class session, students could collaborate in groups to apply these ideas to more complicated learning.

Moreover, there are two basic methods of instruction in higher education, teacher-centered and student-centered, according to the research referenced by the University of Buffalo. These methods will substantially impact the student's educational experiences and their capacity to absorb new information

and apply it to new situations. Student-centered learning is different from teacher-centered learning in that the student builds understanding under the teacher's guidance. Student-centered learning builds understanding using existing knowledge and new experiences, as opposed to teacher-centered learning, which consists of inputs as information supplied to students and outputs such as student behavior, like performances on tests, essays, or presentations. While in student-centered learning, student action, and instructor facilitation, teacher-centered learning focuses on teacher actions and material coverage. In a teacher-centered method, the instructor typically imparts knowledge, assesses results, and reinforces behavior, whereas in a student-centered approach, the instructor offers experiences and directs meaning. Moreover, students who use a teacher-centered method, on the other hand, have a tendency to take in knowledge and be passive learners. In contrast, students with a student-centered approach participate in active learning and build an understanding process. Modeling, explanation, elaboration, lecturing, demonstration, thinking aloud through processes, and recapping or summarizing material are often used in a teacher-centered environment. Unlike a student-centered approach, the methods used focus on coaching and facilitating, such as interactive lectures, questions that guide student thought, prompts and cues, scaffolding learning and information, thinking collaboratively with students, and incorporating formative assessment.

The teacher-centered and student-centered approaches are both acceptable choices. Your learning objectives and context will determine how you use them. In some parts of your course, students use supervised practice to conduct lab experiments with a partner, but in others, modeling a chemical experiment may be the ideal technique to teach processes in the lab. Additionally, both strategies might be visible in a single lesson or module.

Further, this teacher-centered or student-centered approach has benefits and drawbacks, meaning any strategy has advantages and disadvantages. One-to-many delivery is effective and ensures coverage for teacher-centered instruction. However, it can diminish the chance for self-direction and guidance, fatigue attention, and lower communication or collaboration. It may be incredibly engaging and entertaining for student-centered instruction, help students strengthen their communication and teamwork skills, and encourage more independent learning. However, many pupils may find it challenging, and it can be extremely noisy.

Constructivism contends that while teachers can impart knowledge, only students can interpret it considering their past knowledge and sense-making abilities. Depending on how challenging this meaning-making may be, instruction, feedback, or assistance may need to be given in varying amounts. The difficulty of the subject and the pupils' prior knowledge will both affect this. It will be possible for you to ascertain prior knowledge and modify assistance using a student-centered approach.

In addition, Humber College (2020) determines if content should be presented orally in a lecture. There are already many internet platforms like Zoom that can be used to record lectures. Finding supplemental or complementary resources to share with students is easy. It is also quite possible to share files. Meeting students and holding class discussions are both extremely possible using different online platforms. For practical laboratories, using simulation resources to promote ongoing skill development, like Online Labs or Merlot, is an option. To display abilities, use Khan Academy, LinkedIn Learning, and YouTube (Learning Continuity Kit from Humber College) to prepare case studies and encourage students to write an explanation of the actions they would take to handle the problem.

Moreover, the delivery at the University of Melbourne in 2023 refers to the educational objects the teachers exchange with their pupils. Examples include presentations, readings, references, studio project



briefs, and subject material or directions. Technology advancements and alterations to the learning platform have enabled students to easily access and participate in learning activities on their own schedules in an online learning environment. On the other hand, students value opportunities to engage with their cohort and their tutors in real-time, particularly in situations of social isolation. One of the main difficulties of teaching online is finding an efficient and practical balance between synchronous and asynchronous alternatives.

Delivered content is a component of each cycle of learning activities, and this directly influences the chance for students to interact with their teachers and one another. Various strategies could be used to convey content. Universal capture, formerly personal capture, can be used to record and edit video content from your computer, post the captured content online using a web platform, and allow lecturers to pre-record videos for asynchronous delivery. When using guest lecturers, the organizer should ask them for a screencast video or arrange a Zoom session for them to film their video beforehand. There are two alternatives for live streaming lectures and learning environment advice for synchronous delivery. These involve live streaming from a personal device using Universal Capture and from a classroom on a university campus using Lecture Capture. The recording is saved on the topic canvas website in both situations and is accessible to students for review. Some strategies might be considered as well to support the engagement.

For asynchronous delivery, lecturers should purposefully pause the video during which they give students instructions to complete two-minute activities that are relevant to the lesson, such as looking over a figure or diagram, looking up a case study or definition online, outlining an idea, or asking a question. Teachers might urge students to use reactions or to offer comments and questions in Zoom chat during synchronous delivery. Consider taking a 7 to 10 minute break to answer queries, exchange opinions, and share anecdotes "off script." Teachers can also check in with students and assess comprehension using Poll Everywhere or Zoom Polling. Further factors to consider, such as asynchronous delivery, enable teachers to flip the classroom and emphasize the time available for synchronous learning activities that encourage student involvement.

Additionally, it can lessen Zoom weariness. Use the Zoom or Echo360 settings' audio transcript option if available. Students will benefit from this if there are challenges with audio quality, strange accents, or foreign language.

In the delivery of content online, the University of Illinois Urbana-Champaign (2023) pointed out that content delivery is one of the most challenging and important aspects of developing an online course. Content is the heart of any course, so how content is presented to students strongly impacts student success and satisfaction. The best way to deliver content varies from course to course, but several best practices can be used to ensure your students are learning the content they need to succeed, regardless of the platform you choose to deliver that content. Many of the best practices in online content delivery are the same as face-to-face content delivery.

Speaking of best practices, one to remember is to structure your lectures rationally. Students will comprehend the purpose of each lecture and find it easier to follow and remember the subject if instructors are clear and logical in their presentation of the material. As such, to make content interesting as well, engaging students in the course is vital in both in-person and online settings; making a course engaging encourages student effort and helps them succeed; add engaging examples, movies, and anecdotes to the lectures to achieve this. You must consistently deliver content. Once one decides how to

provide the course content, keep it that way by delivering the course in a consistent format, which helps students navigate the course successfully and keep track of their responsibilities.

On the same thought, one must be succinct when presenting the material; spend as little time as possible on small details like lectures and only provide the information that is necessary for pupils to succeed. Students are more likely to learn if less information is presented to them at once. Another one is to remain focused. Similar to being concise, it is essential to maintain your attention as lectures are being prepared. Avoiding content overload and concentrating on helping students focus on the most crucial elements requires lecturers to discuss just one main issue at a time while fully explaining that topic. Be as succinct as possible. Since students' attention spans are far shorter online than they are in a face-to-face setting, brevity is a virtue in the online classroom. Long lectures can be broken up into around seven-minute chunks, also known as chunking, which increases the likelihood that students will pay attention and remember important information.

Finally, whenever possible, deliver your content visually. Presenting course material in a visual rather than textual format. In this approach, students are more likely to remain interested in an online course that largely employs pictures to communicate the subject rather than long text passages.

There are numerous ways to convey knowledge to students, both within and outside of the classroom, according to the University of New South Wales (2020). The strategies for delivering material must be considered, and they are crucial parts of the design and implementation. Adaptive online lessons, online databases, virtual classrooms, interactive packages, audio recordings, videos, and images are just a few examples of the technology that can be used to provide content. Here is a list of various content delivery/teaching strategies. Reddy (2018). The latter also demonstrated that each strategy has advantages and disadvantages. The instructional — lecture format (one-to-many) comes first.

The advantage of this approach is that it can ignite students' interests and introduce them to new subjects. Teachers can impart knowledge with a cohesive structure and flow (other approaches may be less structured) while also helping students improve their note-taking and listening skills. Additionally, this allows students the chance to do so in an environment where they may listen to and ask questions about others' doubts. It is a passive method of learning, though, because not every learner picks things up at the same rate, and some might lag. Some kids can daydream and not pay attention. The rules for employing this method stipulate that lectures be brief and participatory to keep students' attention. It ought to be for the universally applicable common core classes. It should be vibrant and enjoyable with many examples, and the content should be taught in a way that all students can grasp while combining a range of learning modalities, including films, discussions, question and answer, etc. For lectures, students can be divided into groups according to their skill levels, and the presentation should start and end with questions that pique students' interests. Finally, the pupils should complete the readings in advance.

Another is the discussion format, which calls for round-table discussions with few to many participants. One benefit is that it is more enjoyable since it brings together many viewpoints and allows students to speak up rather than just listen. Students must pay attention and be interested while delving considerably more deeply into the themes, which forces active engagement. It makes abstract thinking more enjoyable and teaches youngsters how to work together, be tolerant of others, and respond to them. It also teaches children how to reach an agreement and how to communicate and express themselves confidently in a group. The drawback of this is that confident kids will dominate the discourse and prevent other kids from having a chance to speak. As students may argue, and not all subjects can be taught this, the debates

may veer off-topic. A facilitator should be present during group conversations as part of the rules for adopting this method, and there should be a clear outcome expected from the discussion—for example, a one-page response to a prompt. To ensure that all students are engaged, a peer evaluation system should be in place. There should also be clear dos and don'ts in the conversation that everyone understands and abides by, such as not interrupting, allowing everyone an opportunity to speak, speaking within your allotted time, etc. Ideally, The lecture should be followed by a discussion, allowing students to delve further into the topic. Discussions can occur about more opinion-based disciplines like history or philosophy than fact-based ones like Mathematics or Science.

Another strategy that is seen to be effective is a one-on-one learning session (one to one) or (one to few). Highly individualized to the student's level of proficiency, and the teacher can tie the student's particular area of difficulty to their interests or hobbies to simplify it. It has less stress, the child can develop confidence in that area of weakness, and it removes distractions for those who struggle with concentration. However, pupils may get mentally drained because of little opportunity for peer engagement. It is advised that 4 to 5 students meet one-on-one at once for this strategy to be effective. It will essentially be a one-to-few session where each student simultaneously works on their individual needs. Every student will receive scheduled one-on-one time, which is effective for guided self-learning and helps to prevent some kids from feeling awful about it.

Having projects is one area to take into account. Exemplifying the idea of learning through doing, creating, investigating, etc. This method reinforces concepts since children are more likely to remember what they actually do, and it also provides them with a lot of independence, ownership, and control over their studies. Additionally, the student can relate it to the actual world, making the learning process engaging and relevant. Given that students can choose to go as deeply as they wish, it is enjoyable and will boost student motivation.

Given that it fosters more curiosity and inquiry and integrates several subjects, it is very workable and allows group work and collaboration. Similar to previous systems, it has some drawbacks, one is that tracing individual efforts in a cooperative project could be challenging. Topics might not be learned thoroughly or deeply enough, and learning may be less ordered and organized. The best way to make this strategy work is to combine it with self-learning. A mentor or facilitator must continuously assess the projects and ensure that the students are on course. For group projects, there must be a peer review system so that all students are required to participate. Lastly, it needs to be carefully planned so that students can integrate different disciplines.

Another approach is self-learning. This enhances motivation by giving students control over what they learn. Students can work at their own pace while experiencing less stress. If they choose to, students can go further into a subject. This turns students into lifelong learners by boosting their confidence and independence.

Additionally, it gives the student the freedom to study any subject or topic without being constrained by teachers or other factors. Another benefit of self-directed learning is that students are not restricted to a single location because they are empowered to do so. However, this approach is best suited for highly driven, inquisitive, and independent learners. With this approach, students require a mentor who can answer their questions and address any concerns they may have. Students might not choose the finest learning tools, and even worse, there is no one to correct their errors. However, if students are watched to ensure they don't waste time, self-learning might be used to its fullest potential. This method works best for classes that are optional or customized.



Another to consider is the use of experiences, including immersive field excursions, exchange programs, and hands-on activities. The advantage of this approach is that it enriches the curriculum by exposing pupils to the real world, energizing them in their new surroundings, and enhancing their learning. Additionally, this approach brings lessons to life and allows students to form relationships. However, delays may occur due to logistics and transition. Students won't be able to delve deeply into the subject but will still gain a sense of it. Students must prepare for field trips and participate in lively conversations before and after (during the journey time) to get the most out of this strategy. Some assignments or output may be done after every trip. Ideally, there should be a combination of all of them. Some students would prefer one method over another so that the time allocation can be personalized to a large extent.

Bates (2020) noted that instructors have little control over the material in many situations. The curriculum of a given course or program may be mandated by external organizations like accreditation agencies, state or provincial governments, or professional licensing boards. The notion of a set body of material that students must acquire, however, is being called into question more and more as a result of the quick advancement of science and technology. Even in six or eight years of formal education, engineering and medical programs struggle to cover all the knowledge that professionals need to know to practice effectively. Professionals will need to go on learning well past graduation if they are to keep up with new developments in the field.

Particularly, covering material fast or overwhelming students with the material are ineffective teaching methods since, even if they worked more throughout the day, students in these subject areas still couldn't grasp all the knowledge required for their professions. Specialization has traditionally been used to manage the expansion of knowledge. Still, it is ineffective when dealing with complicated difficulties or challenges in the real world, which frequently calls for multidisciplinary and broad-based methods. Teachers need to devise strategies to help students deal with the vast and expanding amounts of knowledge in their subject (Bates, 2020).

Emphasizing the development of skills like knowledge management, problem-solving, and decision-making is one strategy to address the issue of the knowledge explosion. These abilities do not, however, operate in a vacuum. One requires knowledge of facts, rules, concepts, ideas, and data in order to solve issues or make decisions. There is a need to understand what information is significant and why, where to find it, and how to evaluate it to manage knowledge. For many, if not all, of their professional activities, they may need to grasp core or basic knowledge or subject. The ability to distinguish between necessary and desirable content areas will then be one teaching skill, as will the ability to make sure that whatever is done to improve abilities, in the process, the core content is covered (Bates, 2020). In the digital age, choosing where pupils should get or find knowledge is another crucial choice for teachers. Due to the scarcity of books in the medieval era, libraries served as vital content sources for teachers as well as pupils. The shortage of content sources necessitated professors' selection, mediation, and filtering of content. Today, we are not in that circumstance. Literally everywhere has content, including the Internet, social media, mainstream media, libraries, books, and lecture halls (Bates, 2020).

In departmental or program meetings, a lot of time is frequently spent debating whether textbooks or papers students should be required to study. The requirement to concentrate on a narrow range of material within a course or program and the need to restrict the cost to students are two factors that contribute to the selection or limitation of content. However, content is now more readily open, cost-free, and accessible on demand via the Internet. After graduation, the majority of students will need to continue learning. Their use of digital media as a source of information will increase. Therefore, when

choosing content, the following questions should be considered: the extent to which students can select both the content and the source of that content and the extent to which the instructor needs to choose the content for a program other than a broad set of curriculum topics, the extent the instructor needs to deliver content themselves, such as through a lecture or Powerpoint slides, when content is so freely available elsewhere, the additional benefit brought by the information, the extent to provide criteria or guidelines to students for choosing and using openly accessible content, and the best way to do it.

Moreover, when responding to such queries, consider whether the choices one will make which enable students to handle content more effectively after graduating. The order and interrelationship of various material parts is one of the most important aids teachers and instructors offer. This should involve the organization, such as the choice and sequencing of the content, the creation of a specific focus or approach for a given subject, aiding students in the analysis, interpretation, or application of the subject matter, and the integrating and linking of several subject areas (Bates, 2020).

A course has traditionally been divided into a series of topic-related classes taught in a specific order, with the instructors framing and interpreting the material as it is presented in each class. New technologies, however, offer more ways to organize content. Using learning management systems like Blackboard or Moodle, teachers may choose and manage the content that students can access at any time, from any location, in any order. Students can increasingly impose their structures on content because of the accessibility of a wide variety of content via the Internet and the capacity to gather and organize content through blogs, wikis, and e-portfolios (Bates, 2020).

Apparently, students require some form of structure within their subject areas for a variety of reasons, including the need to learn some things in the right order, the fact that without structure, content would be a disorganized collection of unrelated subjects, and the fact that students cannot determine what is crucial and what is not until they have begun studying a subject. It is important for beginners to know what they must study each week. Numerous studies have found that tightly structured, sequential approaches to content are very beneficial for beginning students. However, as students gain more expertise or experience in the subject area, they tend to develop their own methods for choosing, organizing, and interpreting content (Bates, 2020).

Particularly, questions should be considered by instructors when selecting how to arrange the content in a course or program like how much structure should be provided in managing, how much should be left to the students, how new technologies change, how should structure the content; how will they allow one to offer more adaptable structures that will meet a wide range of student needs. In addition, when responding to these questions, we should consider how crucial it is for students to organize their own content and whether the solutions provide further assistance (Bates, 2020). To respond to this question, it will be necessary to return to the course's overall goals as well as the goals for learning the content. Technology has significantly increased the choice of activities that students can employ to study material, but these must be connected to the learning objectives established for the program. However, without a set of predetermined activities, information can merely enter the brain one day and exit the next.

Content is still significant in the sense of things to know, even or especially in the digital era. Still, its function is quietly shifting, in some ways becoming a tool for achieving other goals, like skill development, rather than a goal in and of itself. Being clear about the nature and purpose of information in a course and successfully communicating that to students is increasingly important, considering the quick expansion in knowledge in almost all academic areas.

### Assessment Activity

It was emphasized in the study by Melsner, Hofbauer, Lilaj, Agis, Knaus, and Holzinger (2020), medical students that properly constructed multiple-choice questions allow the evaluation of taxonomically higher-order cognitive skills like knowledge application, interpretation, or synthesis rather than testing the simple recall of isolated facts. This was even reinforced in the Case SM research from 2002. Multiple-choice questions should have a question (known as the stem), the right response (known as the key), and distractors (other reasonable answers), according to the literature referenced by Jones (2022). It was stated that there are several advantages associated with employing this strategy in the classroom. Multiple-choice questions can be utilized at various points in the learning process to assess for understanding or as a low-stakes retrieval activity. Additionally, there are several frameworks that aid educators in understanding how learning is developed in connection with educational programs. These programs involve analytical models and frameworks for the development of knowledge, abilities, and attitudes.

Many well-known frameworks, including Miller's Pyramid and Bloom's Taxonomy, have been utilized in undergraduate instruction to create multiple-choice questions. Moore's expanded outcomes framework is another option, and it's frequently utilized to create new educational activities that help students reach higher levels of proficiency in knowledge, competence, and performance (Melsner et al., 2020).

It was noticed that many assessment tools have inherent bias and subjectivity despite the fact that objective formative assessment tools are required to assess a learner's knowledge base and performance. High-quality multiple-choice questions (MCQs) can be used for this. These multiple-choice questions are useful for determining one's level of knowledge as well as the success of educational initiatives and interventions. MCQs are employed as self-assessment modules and during active teaching sessions with the use of audience response systems, even in medical practices that focus primarily on practical demonstration (Catanzano, 2022). This means that even programs or courses that call for practical demonstrations employ MCQs as one of the criteria for assessing the students' learning capacities. However, there are drawbacks to multiple-choice questions, and no teaching technique is flawless. The advantages and disadvantages of employing multiple-choice questions may vary depending on how they will be used (Jones, 2022).

One advantage of multiple-choice questions is that they can be used during different sessions and the entire learning process. MCQs can be used inside or outside the classroom for formative and summative evaluation. If the questions are correctly prepared, they can be flexible regarding the subject matter and the questions asked, ranging from factual memory to higher-order thinking.

Further, younger students who struggle with learning can benefit from retrieval support from MCQs, making retrieval practice more approachable and appealing. Using scaffolded question design, they can be distinguished. The likelihood of the initial retrieval succeeding increases with the correct response being displayed, which might boost confidence and motivation. It can be supplied fairly quickly in terms of time. Because students can rapidly complete MCQs, more questions can be asked to test a substantial amount of information and knowledge. It covers content that requires a significant amount of time because comprehending verification and experience with information retrieval are crucial and cannot be ignored. In the classroom, this can help with responsive teaching. Carefully designed can address potential misconceptions that may have developed in previous lessons.

In addition, MCQs are graded and scored objectively because there is no need for review or moderation because the answers are either correct or incorrect. It has the potential to reduce the burden in terms of

feedback and grading. Numerous digital technologies are available that can give pupils immediate feedback. As an alternative, students may complete MCQs while the teacher is watching. A correctly crafted exam can be utilized often, which reduces workload and helps students practice retrieval skills regularly and spaced. MCQs can be utilized with students of all ages and in various disciplines. To encourage consistency of the information being tested, MCQs can and, in an ideal world, should be utilized across year groups and departments. The questions can be the same, but the instructor can choose how to deliver them. For instance, one teacher might ask questions using a digital tool, while their colleague would want to incorporate questions into presentations, with students responding on little white boards. Short-answer questions can be created from multiple choice quiz questions by eliminating the correct answer and any distractor words to make the questions more difficult (Jones, 2022).

However, it was also mentioned that poorly worded MCQs annoy test takers and do not accurately assess students' knowledge. To create questions and exams that are psychometrically sound, MCQ authors and editors must follow strictly normative standards for question composition. Catanzano, Jordan Lewis, and Jones (2022) emphasize several points, one of which is that if MCQs are poorly designed, it is possible that crucial information will not be assessed and that low-level recognition or power of elimination will instead be used. Distractors must be believable, and creating credible ones might be difficult for teachers. Having the correct option and plausible detractors is sufficient for alternatives, but it might take some time. However, a good method to deal with this is to look at the quizzes other teachers have created, use or change the questions, or cooperate with other people in the department.

MCQs can be utilized in the assessment process for both summative and formative assessments, but using them at the end of unit tests or in any other high-stakes assessment might be challenging because students see them as low-stakes retrieval tasks. Additionally, the likelihood that students may guess the right answer is another reason why some educators are against or hesitant to employ MCQs. Additionally, some online quizzes have timers and assign points to pupils based on how quickly they respond. However, this strategy tends to encourage pupils to rush, not read questions thoroughly, and make mistakes. While a timer might put pressure and/or panic on students, it may take longer for students with learning disabilities or English as a second language to read, absorb, and select material.

However, Catanzano et al. demonstrate the importance of high-quality multiple-choice tests as formative and summative assessment methods. For these test items to accurately assess candidates' knowledge, they must be written according to the guidelines for question writing. Using the above guidelines, one can construct questions with a single positive response that has distinct stems and suitable distractors.

One issue with using MCQs is that students do not always examine their responses and consider how they are doing, preferring to look at their scores rather than recognizing and filling up the gaps in their knowledge, even though this is an essential part of the learning process to keep learners moving forward. A student should be encouraged to check their answers and be aware of which ones were right and wrong if they received a score of 15/20 on an MCQ test so they can learn from their mistakes and not make the same ones again. Even if students have information related to the question that will not be awarded or recognized, there is no flexibility in terms of either incorrect or correct credit. The pupil may find this to be annoying. This, as a retrieval strategy, has some drawbacks. There must be opportunities provided for students to recall and elaborate. Teachers should not rely solely on the retrieval practice. Other strategies can and should be used in addition to MCQs. Multiple-choice questions have advantages and disadvantages, but it is apparent that they have a place in the classroom. They can

improve learning by assessing comprehension, finding misunderstandings, and being regularly utilized for retrieval practice. Additionally, MCQs can lessen instructor effort and encourage curriculum consistency (Jones, 2022).

In line with other study, it was noted that creating MCQs that assess students' competency and knowledge application can be difficult. Designing questions that concentrate on higher levels of cognition, as Bloom's Taxonomy describes, when creating multiple-choice items to evaluate higher-order thinking. A stem that asks students to apply course concepts, analyze a problem, or assess options is more likely to emphasize higher-order thinking and thus test their capacity for it. Designing issues that call for multi-logical thinking—which is defined as thinking that requires knowledge of more than one fact to logically and systematically apply concepts to a problem (Brame, 2023) can be useful when creating multiple-choice items to test higher-order thinking.

Catanzano et al. (2022) outlined four essential requirements for a well-written question: the content should be pertinent and significant to the subject matter being tested; it should distinguish between people who understand the material or have topic knowledge and those who do not; (it must be clear and unambiguous, and it must test knowledge at the proper level for examinees. Clueing is also taken into account in order to direct the takers correctly.

Sokhanvar et al. (2021) have shown that incorporating authentic assessment activities that mirror real-world scenarios can enhance professional competencies acquisition. The findings revealed that students who engaged in authentic assessment activities, such as case studies or simulations, demonstrated higher competency levels in applying their knowledge to real-life situations.

### **Time Management and Procrastination**

Speaking of time management, adjusting the online lecture process necessitates that students be able to manage the intervals between lectures and refrain from completing work or tasks assigned by the lecturer. The best-case scenario for students participating in online lectures during the pandemic outbreak is to complete their assignments on time and turn them in.

In truth, many students struggle to organize their time to complete their class tasks on time. It is frequently seen that many students put off completing their assignments. According to Kristy's research, procrastination and time management are related. A person's work is influenced by their capacity for time management. In one research, Septemberi (2018) found no connection between time management and task postponement (procrastination). According to a study by Windhiyana (2020) based on the findings of interviewees, this university's online learning initiatives are successfully managed through Zoom, Google Classroom, Schoology, and Edmodo programs. Most challenges encountered while implementing online learning relate to unreliable internet connections (Firman, 2020).

According to the research project by Sepriana et al. (2020), the pandemic has had a negative impact on learning, including a shift from in-person instruction to online instruction, an increase in the use of technology in instruction, and a rise in students' learning independence. According to Minarto's (2018) study, time management significantly impacts students' academic success. Also, it was explained that there was no significant correlation between the degree of time management and GPA.

In one research, it is clear that time management has no impact on students' learning results. As a result, students' capacity for time management is not the sole factor in determining the degree of their learning outcomes. It can be concluded that a time management package can decrease student academic procrastination because there is a time management package to reduce academic procrastination of high



school students or comparable. According to research by Sefriani and Sepriana (2020), online learning is excellent for enhancing learning outcomes.

Another study by Sefriani and Veri (2019) shows that learning through mobile learning-based applications can enhance student learning results in their research. They also had success utilizing Android-based learning applications to enhance learning results. According to Jafnihirda et al. (2019), employing interactive learning modules to enhance learning is also quite beneficial. Therefore, online learning actors must consider the utilization of learning material and the students' capacity for time management to finish tasks.

According to Covey (2019), self-management and time management go hand in hand. Self-management can be summed up as a technique for people to plan their lives according to the idea of ranking their priorities. Following the preceding, Macan (2018) defines time management as time management in which people first identify their wants and desires before ranking them according to importance. Since time management is one of the internal elements influencing learning, it plays a crucial part in educational activities. Effective time management is a motivator and impetus for learning since it makes students more interested and less bored with the material they are studying, which improves learning outcomes (Sepriana, 2020).

Additionally, procrastination is a common problem in academic contexts and has a variety of detrimental effects (Goroshit, 2018; Zacks & Hen, 2018). Academic procrastination is a common practice that harms students' well-being and performance (Hen, 2018). Procrastination is one of the common obstacles to productivity. People frequently do so Even when they know that delaying something until the last minute will cause them stress. Self-management is the key to effective time management (Spidal, 2019). Mak (2019) examined the effectiveness of a time management intervention on college students' academic performance. The intervention included workshops and individual coaching sessions focused on goal setting, prioritization, and time allocation.

### **Concentration and Memory**

The unique contributions of vocabulary and verbal like short-term and working memory factors whose relation to listening comprehension has been assessed (Lervg et al., 2018; Wolf et al., 2019). The idea that vocabulary and listening comprehension are closely associated is commonly accepted. Across all school grades, empirical research has demonstrated a strong relationship between vocabulary and listening comprehension. According to these results, vocabulary plays a role in listening comprehension, even in higher grades.

Memory, particularly verbal memory, contributes to creating meaning in terms of general cognitive resources (Pimperton & Nation, 2022). Given the expected relationship between metacognitive abilities and listening comprehension, it is plausible that task attention or concentration may be related to children's listening comprehension. Because communication is temporary, it must be actively and attentively listened to throughout the speech delivery. Although maintaining focus is probably related to listening comprehension, little research has been done to support this notion. According to the findings of this empirical investigation, students' focus had a moderate to significant impact on their listening comprehension.

According to some research, self-efficacy did not predict reading comprehension in children aged 8 to 11. The association between academic self-efficacy and listening comprehension merits more study considering these findings. Conceptually, each of these abilities is directly related to listening

comprehension. However, only vocabulary is thought to have a strong and direct link with listening comprehension at higher ages based on the literature to date. Expectations for focus and academic self-efficacy are less specific. They might directly or indirectly improve listening comprehension through their vocabulary (Bree, 2020). According to May (2019), concentration and memory are considered as siblings. Without classroom concentration, students cannot memorize the subject matter. He added that even a student has a good concentration, without memory it may not be useful.

Furthermore, one of the major distractions nowadays is mobile phone use. This technology has become a major part of people's daily life. People, especially youths, use mobile technology for various purposes (Alalwan et al., 2018). Mobile phone manufacturers offer new features and functionalities that have compelled users to use them. The versatility of the mobile phone allows seamless integration of work, fun, and social interaction and enhances the quality of life in many ways. According to the report generated by the China Internet Network Information center in 2019, 98.6% of internet users in China had access to the internet via mobile devices in 2018, which is 1.1% higher than a year earlier. People aged between 10 and 39 years accounted for 67.8% of all internet users in China, where students (25.4%) were the largest user group (CNNIC, 2019).

In China, young adolescents are very fond of using a mobile phone in their daily routine activities, such as working, driving, and studying, making it their first priority (Zhou, 2019). However, the negative consequences of continuous mobile phone usage have been illustrated in recent studies. For example, overuse of mobile phones adversely affects users' academic performance. The problematic use of a mobile phone has become a societal debate; therefore, it is essential to investigate the negative consequences of mobile phone usage in China. One of the reasons for the negative consequences of mobile phone technology is distraction (Sobhani & Farooq, 2018). Recent research studies have analyzed the impact of mobile phone distraction on social media use at work (Mark et al., 2018) during studying and its effects on memory and cognition.

### **Study Aids and Note-taking**

Taking notes is a method for improving understanding (Zçakmak, 2019). The main benefit of note-taking is that it spares pupils from having to read the entire book. Since it draws students' attention to the reading or listening material, it enhances students' understanding abilities. It keeps them from missing what is being taught in class. Additionally, it fosters independence in students and aids in their retention of the critical knowledge they have learned (Umaadevi & Rekha, 2019). It can also help people become better writers by using a variety of tactics and strategies. In the context of classes, taking notes is often seen as beneficial. Taking notes in class helps students retain the material and prepare for tests (Witherby & Tauber, 2019).

Further, taking notes is not just something that happens in classes. Note-taking is used in many aspects of life, including daily living and the workplace, with the goals of gaining a better understanding, long-term learning and revisiting prior knowledge. For instance, keeping accurate and clear records for one's own use or the use of others makes coming up with ideas and participating in meetings easier. Additionally, as technology has advanced, there have been certain modifications in students' note-taking habits. Instead of using a notebook and pencil, students can now take notes using some software that is installed on computers or mobile devices. According to Zçakmak and Sarigöz (2019), even pupils who take photos of the messages on the board or take notes are commonly seen.

This demonstrates that note-taking maintains its popularity despite the rapid advancement of technology. Students now have some conveniences thanks to technological improvements, and they spend less time writing. Students who become accustomed to typing on a keyboard rather than writing with a pencil and notebook can complete the same amount of writing in less time and concentrate on their studies in the time that is left (Zçakmak, 2019).

In particular, writing from what was heard or read comes to mind when note-taking is discussed. This is why note-taking was mostly associated with note-taking from listening (61%), which was followed by note-taking from reading (31%), according to a study conducted by zçakmak and Sarigöz (2019) with university students. Typically, notes for academic learning are collected from printed materials or from a course. When taking notes from a written document during a lesson, notes often taken under a time constraint can be written quickly.

Additionally, the effects of taking notes while reading and listening, two different types of note-taking, on students' success in understanding were contrasted. No research indicating which skills—taking notes while reading and listening—were more useful was discovered when the literature was searched (zçakmak, 2019). The result is consistent with the work of Wang et al. (2020), who investigated the effectiveness of a note-taking strategy called the Cornell method.

### **Test Strategies and Test Anxieties**

Academic stress is the product of long classes, frequent exams, unreasonable expectations from parents and teachers, various teaching philosophies, and student comparisons as the main reasons. A small number of studies have been done in the past with nursing students to evaluate academic procrastination (Custer, 2018), time management (Kaya, Kaya, Pallos, & Küçük, 2022), and academic stress (Gurková & Zelenková, 2018) in comparison with various outcome variables. However, there is little proof that this population's procrastination, time management, and academic stress are related.

Testing is one of the main ways to establish competency in today's culture. This environment has dramatically shaped a desire among people to excel and compete with one another, which has led to the prevalence of test anxiety in educational settings. Test anxiety in higher education is frequently linked to poor learning results, even though some research claims that controlled levels of test anxiety can have good impacts. From a biological standpoint, executive functioning profiles show how cognitive functions are affected by test anxiety in college students. These scientific results agreed with behavioral research that examined the link between test anxiety and academic achievement.

In study conducted by Lowe (2018), she used five test anxiety scales and one facilitating anxiety scale to examine cross-sectional differences in culture and gender. 624 Canadian undergraduate students from 69 universities participated in the study, as did 720 American undergraduate students from 441 universities (Lowe, 2018). Unbalanced sample sizes for the sexes could distort the study's findings if gender plays a key role in determining how college students experience test anxiety.

Test anxiety may be influenced by stronger social ties. The researcher used four different assessments to explore the various connections between test anxiety and social identification. These assessments included the Achievement Motivation Inventory, the German Test Anxiety Survey, the German Brief Symptom Checklist, and the Social Identification four-item scale by Doosje (Zwettler, 2018). The study, which included 108 college students from different German universities, discovered through a variety of surveys that test anxiety and social identification are related (Zwettler, 2018). Even if the location is outside of the United States, it still helps to demonstrate how the two relevant components are

connected. However, the population sampling raises some questions because women make up 80.6% of the sample, significantly outnumbering men. By excluding cases of depression from the population sample and ensuring that all individuals had an anxiety disorder diagnosis, qualified clinicians were able to eliminate the two extremes of undiagnosed anxiety and major depressive illness.

Students from various study programs were used, which broadened the sample's diversity and raised the chance that stress levels may differ between programs because some may place a greater emphasis on tests than others. It is important to consider the study's selectivity because it might have an impact on the experiment's findings if it were to be repeated in the future (Zwettler, 2018).

College students' exam anxiety is influenced by various circumstances, necessitating a more multifaceted measuring strategy than previously used. According to earlier research, Lowe discovered that gender and cultural variations have an impact on how test anxiety is measured. Students from Canada and the United States participated in the study, including men and women, for a gender comparison to examine whether cultural differences in test anxiety measurement existed. Despite having a very similar culture, there are variances between the two nations, and Lowe proposed that these cultural and gender disparities may influence test anxiety measures. Lowe made the decision to adopt a more contemporary methodology in place of the many scales and inventories utilized in earlier studies.

However, it is only appropriate to consider the social part of test-taking, which occurs most commonly before and after the exam, as the notion that doing well on an exam equates to proficiency in that subject is a social construct. Test anxiety, according to Zwettler (2018), may be influenced by interactions with professors, classmates, and academic programs. After reviewing numerous studies, Zwettler posits that a greater sense of social identity will reduce exam performance anxiety, depressive symptoms, and social interaction insecurity and increase achievement motivation. Using a variety of questionnaires completed by college students, Zwettler's study investigates social identity, social contacts, and their consequences on test anxiety within various social groups in a university setting.

Every three years, the Programme for International Student Assessment (PISA) assesses the quality, equity, and efficacy of educational systems around the world. In addition to providing a global snapshot of student performance, PISA also examines educational systems' quality, equity, and efficiency. PISA also gathers student well-being data, including study- and assessment-related anxiety, motivation to succeed, expectations for postsecondary education, and social school life. The most recent findings have been released in the PISA 2015 report, which surveyed 15-year-olds in 72 different nations. Students from the UK generally reported feeling more nervous about studying and tests than students worldwide. In contrast to the global average of 56%, 72% of UK students reported feeling apprehensive even when they are well prepared for a test, while 52% of UK students said they get tense while studying, compared to 37% globally.

On the contrary, for certain other scales, the proportion of UK students who expressed worrying about their assessments was comparable to the global norm. For instance, while the global average was 59%, 62% of students in the UK said they were concerned about finding it difficult to take an exam. Similar to this, 67% of pupils in the UK and 66% of students worldwide indicated worrying that they would receive low grades (Ofqual, 2020). According to these data, students in the UK are more likely than students worldwide to report having concerns about their studies and assessments, although in a third of the participating nations, students reported having more worry than in the UK. These results need to be viewed in light of several connected factors. For instance, the PISA survey's findings also show that,

generally, students who are most driven to succeed in school and those who receive little parental and teacher support are more likely to be anxious about their schoolwork and assessments.

It is also feasible that students from the UK are better able to report their anxiety related to school given the setting of the mental health landscape in the UK, being more open to recognizing and discussing mental health. Assessments may cause anxiety for certain pupils. Using the data from two important sites, this section defines assessment-related anxiety and examines the circumstances in which it arises. These meta-analyses looked at 800 research findings that were published between 1950 and 2017 to explore the correlates, causes, and effects of test anxiety (Roy & Post, 2018).

Moreover, when discussing academic aptitude in connection to test anxiety, teachers' judgments of student performance in the classroom have mostly been used to analyze the effects of test anxiety across ability levels. Thus, a student's participation in class is likely to have some bearing on these metrics. These results suggest that students with lesser ability tend to have higher levels of test anxiety despite controlling for prior accomplishment (von der Embse et al., 2018). It is not necessarily an easy relationship, though. It is probable that interference with cognitive resources is the cause of test anxiety pupils' decreased assessment achievement. For instance, university students who often have superior academic competence reported more exam anxiety than non-students. The nature of the stakes associated with success in an assessment can impact the relationship between academic competence and test anxiety, making it more complex on an individual level.

Another consideration is personal traits and situations, such as individual personality differences and trait/state anxiety. Experiencing high levels of test anxiety is likely to affect people differently. However, von der Embse et al.'s (2018) meta-analysis reveals that high levels of test anxiety are associated with lower performance after controlling for prior attainment. Deficits in cognitive ability, language and understanding, and non-verbal reasoning abilities are probably responsible for this effect. However, any decline in test performance linked to greater levels of test anxiety is typically just marginal and might be challenging to assess (Embse et al., 2018). It's also likely that test anxiety has less of an impact on grade outcomes than it does on test performance. Because only a narrow range of marks are given the same grade, this is caused by the width of grade boundaries. According to research on academic self-concept, people who have low academic agency and negative self-perceptions are more likely to suffer exam anxiety. Examples of these unfavorable evaluations include having low self-esteem and trust in one's academic abilities and having trouble defining and achieving academic goals. However, avoidance and other emotional coping mechanisms are positively connected with exam anxiety.

According to von der Embse et al., people who are more inclined to disregard or avoid anxiety-inducing assessments and related academic tasks are more likely to feel test anxiety. A positive academic self-concept mediates this association by reducing the perception of performance evaluation situations as unfavorable through positive self-beliefs and self-control.

Apparently, teachers may employ techniques they think are motivating to promote studying and test preparation in the lead-up to examinations, particularly those viewed as having high stakes. These techniques include fear appeals. Fear-based messaging frequently highlights the significance of exams with high stakes and the requirement of obtaining specific grades to go to further education or work. Additionally, teachers can warn students about the drawbacks of disregarding these messages, such as having fewer favorable employment options.



There is evidence that teachers might use performance-enhancing strategies like eliminating extracurricular activities and meticulously monitoring students' progress to transfer their stress about academic goals or performance measures to their students. Emotional contagion can cause stress and worry to spread between students and teachers (Burgess, Riddell, Fancourt & Murayama, 2018). There are many things that teachers say they believe lead to stress and burnout. For instance, in addition to the demands of school accountability, teachers claim that curriculum changes, workload, student behavior, the lack of advancement opportunities, inadequate working conditions, and poor interpersonal connections all have a negative impact on their mental health (Putwain & von der Embse, 2019).

In particular, socially anxious children are more likely to experience stress transfer from teachers and to do poorly on the socio-evaluative component of test anxiety (Djik, Fischer, Morina, Eeuwijk & van Kleef, 2018). This can affect how high-performance standards are set and lead to exam anxiety.

Moreover, the non-examination assessment (NEA) gauges the subject-specific knowledge and abilities that timed writing exams cannot assess. There is a lot of research on how exams affect test anxiety, but little is known about how NEA, such as coursework or controlled assessments, affects test anxiety. According to students who participated in a different study, NEAs were less stressful than standard exams (Barrance, 2019). The fact that coursework was not conducted in a formal setting was appreciated by students, who felt more in control of how they spent their time doing the work.

### **Organizing and Processing of Information**

Recent developments in information and communication technologies have amassed excessive information in every aspect of human existence, according to organizing and processing of information (Al-Sai et al., 2019). By listing, identifying, categorizing, or characterizing data, information organization, also known as knowledge organization, is a technique for organizing and classifying it (Rupp, 2022). Massive amounts of available information create several difficulties, including those related to storage, processing, meaningful arrangement, and presentation for later use.

According to Rupp, learning is organized by compiling all pertinent data regarding a certain subject and organizing it effectively. The ultimate objective is to develop a system that aids students in gathering, evaluating, and storing new information. Well-organized information for educational reasons should also be easy to find if you need to refer to it later, clear to read the second time, and simple to distribute. It should be formatted so that anyone can exchange it.

To gather, filter, process, store, and manage the enormous amounts of information generated by businesses and society, information system researchers have created a variety of frameworks, rules, and tools (Han et al., 2018). We depend on information because we are lifelong learners. Every day, knowledge is used to solve issues, build relationships, advance jobs, or just for fun. Information is continually being presented, which is either consciously or unconsciously consumed.

More so, it is interesting that information system researchers find themselves with a massive amount of material after doing a literature review on a certain research topic, which must then be thoughtfully structured and presented to the research community (Berdanier & Lenart, 2020). However, during the paper publication process, their literature evaluations are frequently critiqued for lacking logical constructs, syntheses of themes, and well-reasoned analyses (Haddaway et al., 2020; Snyder, 2019). Information organization is a useful tool for self-learners to plan out their own study. According to research, successfully organizing knowledge produces long-lasting effects, aids in students' goal-achieving, and improves learning outcomes and progress (Rupp, 2022).

Any scientific work, including journal articles, dissertations, theses, and review papers, must include a literature review (Aveyard, 2018; Garrard, 2020; 2002). Based on a review of the literature, it was determined that the process consists of three steps: input—where papers are gathered in accordance with the research problem and data collection; processing—where papers are assessed, analyzed, and interpreted; and output—where information from the process is obtained for public presentation (Aveyard, 2018; Garrard, 2020). Research problem creation and data gathering are two tasks that fall under input. Choosing the questions that will direct the literature research is the first step in problem formulation. An exhaustive, nearly exhaustive, representative, or crucial set of pertinent papers is what the data collection tries to compile.

Subsequently, process thinking has been adopted in project management and organization studies at many levels (Cabantous & Sergi, 2018), and there are two primary ways to conceptualize the process. It is significant since it transforms the idea of an organization from a static entity to one that is constantly in flux. A developed interest in materiality and a feature of project organizing that is sometimes disregarded is also implied by a concentration on practice. The practice involves a variety of artifacts, is always placed, and is embodied (Gherardi, 2019). Particularly, the growing emphasis on digital technologies and their use for work management—from virtual meetings to algorithms and platforms—has raised interest in organization studies for ideas from the literature on information systems. Organization becomes increasingly essential when we search for knowledge in the digital era. For students, having too much access to information can be unpleasant, which can lead to other negative effects like anxiety, memory loss, and poor performance. Researchers have found that unmanaged stress caused by information overload reduces our ability to learn — but if handled correctly, it can actually enhance learning (Rupp, 2022).

According to one idea, information processing theory tries to clarify how information is stored in memory through investigations on cognitive development. It is predicated on the notion that people do not just react to environmental cues. These include the way the brain interprets data. In addition to explaining how information is captured, information processing theory also describes how it is stored and retrieved (Eliköz, Erişen, & Ahin, 2019). Receiving input, also known as stimuli, from the environment through different senses is the first step in the process. After that, the input is described and stored in the memory, where it can later be accessed. The brain or mind is compared to a computer that can process data from the outside world (Bouchrika, 2022). George Armitage Miller was the first person to propose the notion of information processing. He was one of the pioneers of psychological cognition research. His research is supported by the sign and latent learning theories of Tolman, which contend that learning is a complicated, internal process involving mental operations.

While the major models of information processing theory vary, they are typically made up of three key components (Eliköz, Erişen, & Ahin, 2019): information stores, which refer to the various mental locations where information is stored, including sensory memory, short-term memory, long-term memory, semantic memory, episodic memory, and more; cognitive processes, which refer to the different methods used to move memory between different memory stores. Perception, coding, recording, chunking, and retrieval are a few of the processes, as well as executive cognition, which is understanding how one is processing information internally. It also has to do with being aware of their advantages and disadvantages. This and metacognition are quite similar.

The review of related literature and studies provided a discussion of the different variables considered in this study. It also ensures that the researcher gains a valuable understanding of the topic presented to inc-

lude the different factors and issues considered in this study.

### **Objectives:**

The following statements enumerated provide the objectives for the conduct of this study to provide a strong basis in updating the review program processes, guide lecturer/reviewers as to the things that must be done and must be improved, and examine the relevance of reviewers competencies to the study skills of the reviewee/examinee.

### **Conceptual Framework**

This study was anchored on the practical implications of teaching competencies. It can be a useful reference point for ensuring quality professional development and national education policy strategies (Dervenis et al., 2022). Likewise, digital competence has become highly important worldwide due to the implications of the pandemic. Accordingly, competency grows with experience (Indeed Editorial Team, 2021), such that teaching experience is positively associated with student achievement gains throughout a teacher's career. This is also since tertiary education requires a series of important modifications to improve the quality of activities utilizing a systematic evaluation mechanism that supports scientific – technical process, which involves a series of organizational and pedagogical that could encourage interest in innovative pedagogical methods (Marques, 2018). This study was also anchored on the principle that academic skills are greatly affected by the study skills of the respondents.

Since the pandemic forced everyone to shift drastically, remote coaching and teaching conduct is new among teachers. Accordingly, more than 1 billion children are at risk of falling behind due to school closures aimed at containing the spread to keep the world's children learning; countries have been implementing remote education programs (UNICEF, 2020). One component of teaching competence is the pedagogical experience.

Accordingly, advanced pedagogical experience can be transferred and passed on to others, as well as reproduced in training techniques and methods so as to be used by fellow teachers, providing high results without additional time expenditure. Teachers make greater gains in their effectiveness when they teach in a supportive and collegial working environment or accumulate experience in the same grade level, subject, or district. More experienced teachers confer benefits to their colleagues, their students, and the school.

To better illustrate if the teaching competencies of criminology faculty reviewers positively impact the examinees' study skills, the following variables were considered: the independent variables are knowledge of the subject matter, delivery of content, and assessment activity. These variables were the factors considered as the main contributing reason as to whether a criminology reviewer is competent enough to handle review classes.

Knowledge of the subject matter was considered since it showcased the reviewer's in-depth understanding of a particular field and mapped – out useful cognitive and correlated ideas. Reviewers can also see how ideas connect across the fields. Delivery of Content was included since it demonstrated the way Reviewers present the content of the subject matter. This includes the reviewer's competence in utilizing the different platforms in physical and virtual space to maximize learning. Assessment Activity was also included since it allows this study to check how the Reviewer evaluated the learning progress of individual examinees before, during, or after the review session. This showcase also shows how

competent the reviewer is in assessing each examinee, considering the unique set up of the review program.

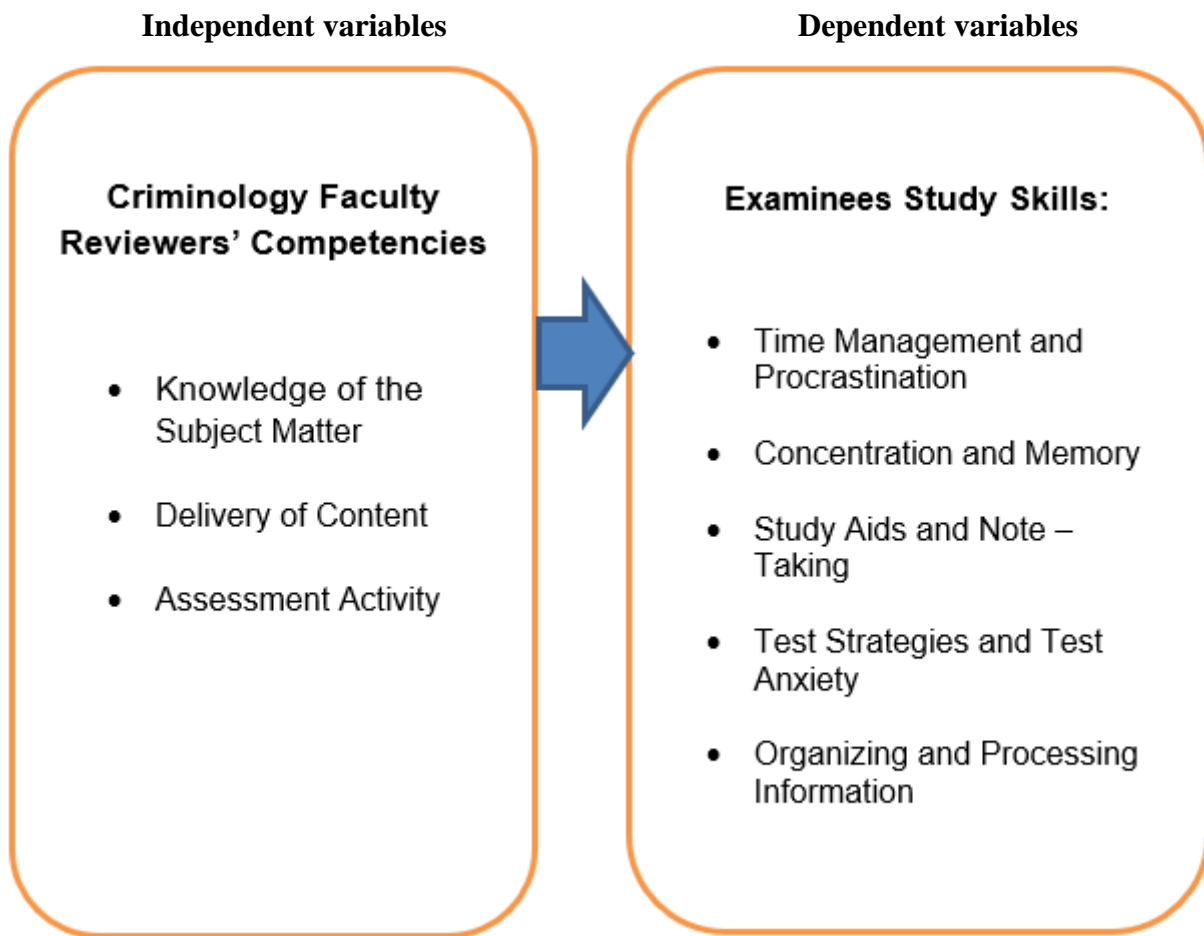
Meanwhile, the dependent variables are time management and procrastination, concentration and memory; study aids and note-taking; test strategies and test anxiety; and organizing and processing information. This was based on the questionnaire prepared by the University of Houston – Counselling Services to assess the study skills that have an impact on the academic skills of a certain individual.

Time management and procrastination were considered since they illustrated how individual examinees manage their time sufficiently and avoid procrastinating on things disturbing their review preparations. This includes proper time allocation and avoiding distractions as the review session progresses. Concentration and memory were also variables considered as they manifested the individual capacity to focus on things that matter, especially during review sessions. One key aspect of this variable is how individual examinees retain information as they prepare for the licensure examination. Study aids and note-taking were other variables considered since they portrayed the individual examinee's note-taking skills during review sessions and in any other review activity. This also covered how study aids such as textbooks, review notes, and other review material enhance their study skills.

Test strategies and anxiety were made part of the variable to consider how questions and different assessment tools should be approached and reduce anxiety as they took the licensure exam. This includes all measures done to enhance the capability of the student to answer test questions and reduce the tendency of burning out during examination. Organizing and processing information was considered to determine how individual examinees processed and evaluated the information, which is essential in preparing the review. This also covers the scope of how the takers develop the habit of checking their competence when organizing things.

Hypothetically, suppose the reviewers somehow struggle with how content should be delivered in the new system. In that case, examinees' study skills are more likely affected by their licensure examination preparation. While flexible learning does not focus on internet use, technology greatly influences the educational system during the global crisis. The sad note is that, accordingly, the application of ICT in higher education has remained a major subject of concern for decades at the global level (Daniela et al., 2018). This became a major challenge as there were noticeable difficulties on the part of the reviewers in the new era of teaching as well as examinees due to limited resources such as money, time, and internet connectivity, as study skills in the new setup were not properly established.

Lastly, checking the teaching competencies of the criminology faculty reviewers has a direct connection to the study skills of the examinees. It could guide administrators, stakeholders, and educators on the best approach among diverse examinees for their ultimate exam – the Board Examination. Besides, the successful integration of ICT can make the learning process more exciting and motivate examinees, considered significant predictors of their academic performance (Xu et al., 2021). Because examinees have different geographical and economic backgrounds, one system may not be equally and fully applicable to others.



**Figure 1. Schematic Presentation Showing the Relationship between the Independent and Dependent Variable in the Study**

### Statement of the Problem

This study aimed to assess the relationship between the reviewer’s competencies and study skills among criminologist licensure examinees of PHINMA Cagayan de Oro College. Specifically, it attempts to answer the following questions:

1. How do respondents perceive the competencies of criminology reviewers in terms of knowledge of the subject matter, delivery of content and assessment activity?
2. How do respondents perceive their study skills in terms of time management and procrastination, concentration and memory, study aids and note–taking, test strategies and test anxiety and organizing and processing information?
3. Is there a significant relationship between the reviewer’s competencies and study skills among criminologists licensure examinees?

### Hypothesis

Considering the research questions above, Problems 1 and 2 are hypotheses-free. For Problem 3, the following null hypothesis was formulated and tested at a 0.05 level of significance.

**Ho:** There is no significant relationship between reviewers’ competencies and study skills among criminologists licensure examinees.



### Significance of the Study

The findings of this study benefited the following institutions and/or entities:

This could indirectly influence the Commission on Higher Education (CHED) in policy intervention in crafting policies relative to the betterment of the criminology program.

This study allowed examinees to acknowledge their current study skills and assist them to better prepare for the licensure examination.

This served as a guide to all Higher Education Institutions offering criminology or has its own review program in monitoring the faculty handling the review or third-party provider and the progress of the examinees.

This provided a strong basis for the recalibration of the review program of PHINMA COC SCCJ Review Center to continuously create a good passing performance and even increase the passing percentage in the licensure examination.

This study guided reviewers as to their teaching competence and what works best for the interest of the examinees.

### Scope and Limitations of the Study

This study covered the teaching competencies of the criminology faculty reviewer and the study skills of the examinee. Thus, it was directed towards the examinee of PHINMA Cagayan de Oro College, Cagayan de Oro City, Province of Misamis Oriental, during the Academic Year of 2021 – 2022. It focused on testing whether there is a significant relationship between the teaching competencies of the criminology reviewer and the examinees' study skills.

Further, this study was limited only to the following variables: knowledge of the subject matter, delivery of content, and assessment activity for the independent variables. For the dependent variable, it is only limited to the following variables: time management and procrastination, concentration and memory; study aids and note-taking, test strategies and test anxiety, and, organizing and processing information.

The above – mentioned variables form part of crafting the instrument of this study, which were mainly the factors considered to test the competency of the criminology reviewer and compiled questionnaire for study skills based on previous research and reviewed by the University of Houston – Clear Lake (2021) which were improved and modified to sustain reliability among the current respondents.

### Definition of Terms

The following terms used in this study were technically and operationally defined based on the study conducted:

**Assessment Activity.** This refers to the ability of the criminology reviewer to evaluate examinees during review class discussions and make questions in line with the standard format and substance provided by the Professional Regulation Commission.

**Concentration and Memory.** This refers to the creation of fruitful study habits with accuracy in the details read and comprehended and is free from auditory and visual distractions.

**Criminology Faculty Reviewer.** This refers to the lecturer handling the review session either doing an assessment or conducting an actual discussion.

**Delivery of Content.** This refers to the ability of the criminology reviewer to communicate the substance of the subject to the examinees.

**Examinees.** This refers to the takers of the Criminologists Licensure Examination (CLE) who are former reviewees of PHINMA COC Review Center.

**Knowledge about the Subject Matter.** This refers to the exposure and proficiency in a particular subject matter that a criminology reviewer can competently handle and articulate.

**Organizing and Processing Information.** This refers to the systematic and orderly arrangement of thoughts, facts, and materials to better understand the topic or certain areas.

**Reviewer Competency.** This refers to the competencies of the review lecturer which covers the knowledge of the subject matter, delivery of content, and assessment activity.

**Study Aids and Note-taking.** This refers to the ability to take down, organize, review, edit, and mark on the line notes while or during discussion.

**Study Skills.** This refers to the set of skills necessary for the examinee to master in preparation for their licensure examination.

**Test Strategies and Test Anxiety.** This refers to the ability to physically, emotionally, and stress-free oneself in preparation for the upcoming examination, during the actual exam, and after the said examination.

**Time Management and Procrastination.** This refers to the skillful utilization of time to activities that require attention and avoidance of interference from unnecessary distractions.

## METHODOLOGY

This highlights the methodologies utilized in the conduct of this study, which includes the research design, the place where the study was conducted, the description of the respondents, the sampling techniques used, the structure of the research instrument and the system of scoring, the data gathering procedure, the statistical treatment, and the ethical considerations during the conduct of the study.

### Research Design

The study adopted mainly the descriptive type of research suitable to the purpose of the study. This study tried to correlate the Criminology Faculty Reviewer's competencies in terms of knowledge of the subject matter, delivery of the content, and assessment activity versus the respondents study skills in terms of time management and procrastination, concentration and memory, study aids and note – taking; test strategies and test anxiety, and, organizing and processing information.

As defined by Siedlecki (2020), the descriptive research method describes the characteristics of the population or phenomena studied. He added that it focused more on what rather than on the why of the research subject. Further, Fluet (2021) describes Descriptive research as a quantitative research method that is considered conclusive and is used to test specific hypotheses and describe characteristics or functions.

To better improve the result of the study, Focused Group Discussion (FGD) was conducted to supplement the data gathered through a questionnaire or survey method. This aided the researcher to further substantiating the results and findings of the study.

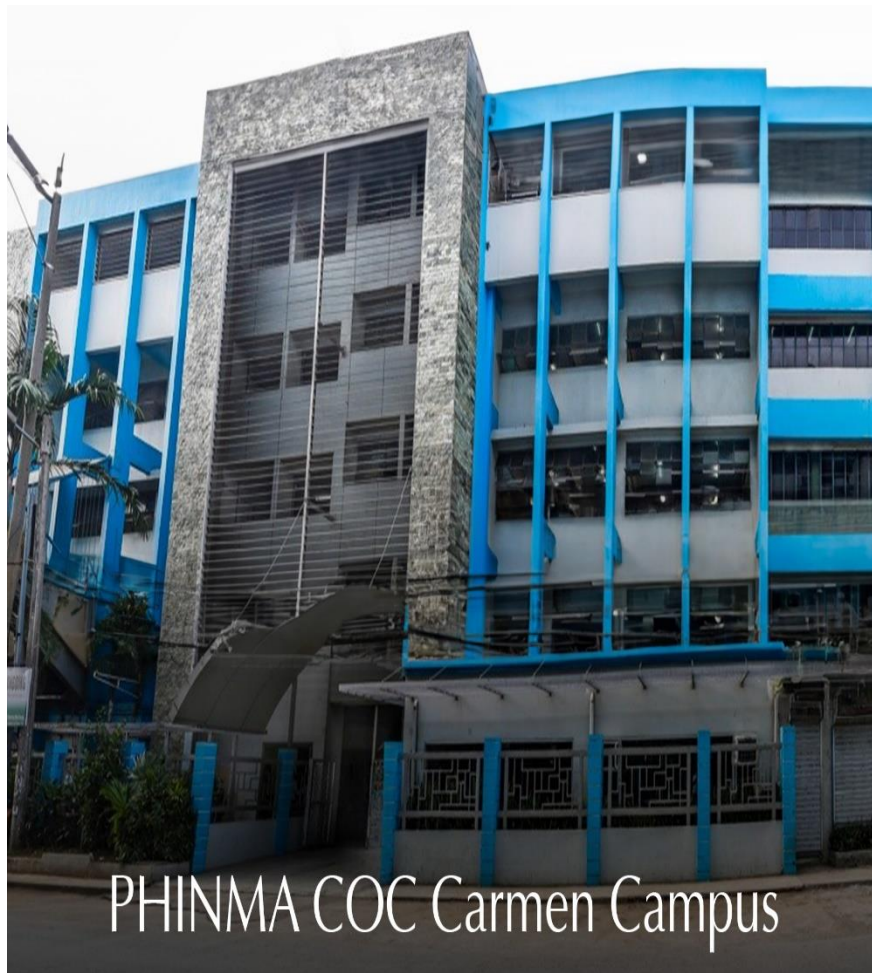
### Research Setting

This research study was conducted at PHINMA Cagayan de Oro College – Criminology Review Center (PCCRC), Cagayan de Oro City, Province of Misamis Oriental, Region 10. The PHINMA Cagayan de Oro College – Criminology Review Center (PCCRC) has been running for almost 15 years, catering

mostly to Criminology graduates from the same institution. It has remarkably yielded a very decent passing percentage in the previous Criminologist Licensure Examination (CLE) and produced a lot of top-notchers both from the national and regional levels. For the last decade, it has always shown a decent passing percentage and made the institution one of the country's top-performing schools.

These recent board examinations (April and August 2023) made a remarkable record in the country. Last April 2023 licensure examination hit 94.81% among 1<sup>st</sup> takers and 87.06% in the overall performance. Additionally, it landed as the number 1 top performing school in this licensure examination among 539 Higher Education Institutions (HEIs) offering Criminology Programs and produces two topnotchers – the Top 3 and Top 4.

For August 2023, it made another strike as it landed as the number 3 top performing school out of 576 Higher Education Institutions offering Criminology Program who took the licensure examination last August. It also produces 85.26% 1<sup>st</sup> takers with an overall performance of 80.00%. For the last decade also, it has consistently placed as the number one performing school in the entire Region 10 and can supply quality criminologists to various law enforcement agencies.



Source: <https://coc.phinma.edu.ph/facilities/>

Figure 2. Map of the Study

### Research Respondents

The respondents of this study covered the two hundred forty-three (243) examinees who took the licensure examination last December 2021 and June 2022. These were the former reviewees of

PHINMA COC Criminology Review Center (PCCRC). They took the review session right after graduation from PHINMA COC.

As former reviewees of the formal review program and other review activities in line with their preparation for the licensure examination, they fit best as the respondents of the study.

**Table A. Distribution of Respondents**

TAKERS	POPULATION	SAMPLE SIZE
December 2021 Examinees/ Takers	136	101
June 2022 Examinees / Takers	221	142
TOTAL	357	243

### Sampling Techniques

The researcher employed a random sampling procedure wherein each sample has the probability of being chosen from the population, giving an unbiased representation of the total population. In this case, each examinee had the probability of being chosen as the respondent of the study was conducted.

### Research Instrument

In order to gather the information needed in the study, the researcher used two separate and distinct questionnaires validated by previous research as a basis in crafting the instrument. The instrument was composed of three (3) parts:

The first part was about the profile of the respondents, which included questions about the number of years to finish the criminology program, employment status, and date of licensure examination: the second part was about competencies of criminology faculty reviewers, while the third part composed of questions to test the study skills of the examinees.

For the second part, the questionnaire was developed based on the following variables: knowledge of the subject matter, delivery of the content, and, assessment activity. The questions were drafted from the fieldwork according to the standards set by PHINMA COC Criminology Review Center's professors, who are experts in handling review subjects. For the study skills, the questions were based on previously conducted research and reviewed by the University of Houston – Clear Lake (2021), which were improved and modified to sustain reliability among the current respondents, which includes time management and procrastination; concentration and memory; study aids and note – taking; test strategies and test anxiety; and, organizing and processing information. The questions were modified based on the perspective of a reviewee undergoing review classes.

For the instrument's validity, a literature review was done in order to exhaust the best possible reference as a guide in creating the instrument and individual items for this study.

For reliability, a dry run was done to check the instrument's content among students currently enrolled in the Program Outcomes Audit (POA): a board course/subject design or a similar approach in the review session for the licensure examination. Thereafter, the instrument was validated by consulting experts in the field. This was done by asking the different professors and reviewers of the PHINMA COC Criminology Review Center. The adviser's comments and the statistician's comments were also considered for clarity of content.

**System of Scoring**

A scoring procedure was utilized to evaluate the value of the gathered data. The scaling presented below served as a guide in scoring the questionnaire and aided the researcher in interpreting the result of the weighted mean.

**Part I. Criminology Faculty Competency**

Scale	Range	Description	Interpretation
4	3.26-4.00	Strongly Agree	Highly Competent
3	2.51-3.25	Agree	Competent
2	1.76-2.50	Disagree	Moderately Competent
1	1.00-1.75	Strongly Disagree	Not Competent

**Part II. Study Skills**

Scale	Range	Descriptors	Interpretation
4	3.26-4.00	At all Times	Excellent Study Skill
3	2.51-3.25	Most of the Time	Good Study Skill
2	1.76-2.50	Sometimes	Enough Study Skill
1	1.00-1.75	Never	Bad Study Skill

**Data Gathering Procedure**

The data was initially gathered through the secondary data recorded in PHINMA COC Criminology Review Center (PCCRC), PHINMA Cagayan de Oro College, Cagayan de Oro City, to identify the respondents and to determine the population of the study upon approval of the letter request.

After identifying the required sample, the researcher prepared the necessary questionnaire that corresponded to the sample size. However, considering the proximity between those who took the licensure examination last December 2021 and June 2022, the researcher gathered the data via Google Form as a primary or alternative way of gathering the data. This also allowed the researcher a fair chance to gather and collect the intended sample size from the entire population, considering that those who passed the licensure examination were already in the different training centers or assigned to different places in the country.

Primarily, the use of a questionnaire was the main data-gathering approach in this study. To facilitate such a process, a logical procedure was followed during the actual data gathering to ensure the orderly collection of information needed. To begin with, the researcher sent a letter to the Review Director of PCCRC, manifesting his intention to conduct the study to retrieve the names of individual students who took the review program for the December 2021 and June 2022 licensure examinations.

In addition, after the permission was secured together with the names of students, the researcher personally administered the distribution of the survey questionnaires or, as the case may be, through the use of google form considering the distance to the supposed respondents of the study assigned in the above – mentioned institutions. To reinforce the study's findings, the researcher conducted unstructured interviews among the examinees. Further, the researcher personally sorted the answered questionnaires to sort and tally the responses. This served as a guide during the tabulation and computation of the data, which was done with the assistance of the statistician.



After such tabulation and computation, the data was analyzed, interpreted, and presented in textual and tabular form, with due consideration of the study's sub-problems and hypotheses. To aid the study's significant findings, a Focused Group Discussion (FGD) was done among potential respondents. These were examinees who recently passed the licensure examination.

**Statistical Treatment of Data**

The following statistical tools were employed to treat the data gathered for further analysis and interpretation:

The weighted mean was used to determine the respondents' assessment of the competencies of reviewers and the study skills of the examinees. Finally, Pearson Correlation (r) was used to determine whether there is a significant correlation between the competencies of criminology faculty reviewers and the study skills of the examinees.

**Ethical Considerations**

To uphold the most possible adherence to ethical standards and guidelines, the researcher ensures the protection of the respondents' integrity during the research process. To begin with, the researcher personally informed the respondent of the nature, purpose, and benefit of the study. It also ensured that the respondents voluntarily participated and that their identities were not divulged even beyond the conduct of the study to respect individual privacy. The respondents' identities, such as names, ages, contact details, etc., were never asked about during the study. Anything that would pinpoint certain respondents was also removed.

Safeguarding vital information was also exercised with utmost consideration and stored securely, limiting access to authorized handlers only. The handling of data was also explained, including how confidentiality was retained and unauthorized access was prevented. The benefit of the study was also discussed, as well as how it helped society with due consideration of fair treatment among respondents regardless of age, gender, etc. Lastly, this paper was scrutinized by the Institutional Research Board (IRB) for evaluative checking to secure compliance with the approved standards and guidelines in conducting the research study.

**RESULTS AND DISCUSSIONS**

This chapter presents the results of the study based on the problem and tables stipulated, a discussion of significant variables, conclusions formulated, and recommendations offered to the beneficiaries of the study.

**Results**

**Problem 1. How do respondents perceived the competencies of criminology reviewers in terms of knowledge of the subject matter, delivery of content and assessment activity?**

**Table 1 Distribution of the Reviewers' Competency Level as perceived by the Respondents based on Knowledge of the Subject Matter**

Indicators	Mean	SD	Description
As a reviewee, I observe that the reviewers... provide clear information about the content of the lectured	3.52	0.52	Strongly Agree

course/subject.			
show mastery of the content of the lectured course/subject.	3.47	0.55	Strongly Agree
efficiently incorporate the substance of the course/subject into real life scenario.	3.36	0.49	Strongly Agree
has a good command of the contents of the course/subject.	3.50	0.54	Strongly Agree
enable the reviewee to apply the Knowledge in real life scenario	3.33	0.58	Strongly Agree
professionally demonstrate competence of the lectured course/subject.	3.48	0.52	Strongly Agree
emphasize specific areas of the subject – content that must be given importance	3.54	0.52	Strongly Agree
allow the reviewee to develop the necessary skills out from the content of the lectured course/subject.	3.41	0.63	Strongly Agree
highlight the important points in the discussion of the lectured course/subject.	3.36	0.57	Strongly Agree
can provide the same quality of input even during online review session.	3.31	0.64	Strongly Agree
<b>Overall</b>	<b>3.43</b>	<b>0.56</b>	<b>Strongly Agree</b>

**Legend:** 3.26 – 4.00 = Strongly Agree/Highly Competent      2.51 – 3.25 = Agree/Competent

1.76 – 2.50 = Disagree/Moderately Competent      1.00 – 1.75 = Strongly Disagree/Not Competent

Table 1 shows the distribution of the reviewers’ competency level as perceived by the respondents based on **knowledge of the subject matter** with the overall mean of 3.43 (SD = 0.56) described as **Strongly Agree**. It implies that the respondents assessed the reviewers as highly competent in terms of their knowledge of the subject matter. The results suggested that, on average, the reviewers are perceived to possess a high level of competency in terms of providing clear information about the content of the lectured course/subject, showing mastery of the content, efficiently incorporating the substance into real-life scenarios, and demonstrating professionalism. Overall, the results suggest that the reviewers generally possess a high level of competency in their subject matter knowledge and presentation. This is supported by the study conducted by Lasley (2020) wherein he emphasized that for teachers to be successful, they must resolve first issues regarding pedagogical content (knowledge) as well as the general pedagogy which focus more on the generic teaching principles.

However, there may be a need to focus on enhancing the quality of input during online review sessions or activities and ensuring that the knowledge imparted can be effectively applied in real-life scenarios. Addressing these areas of improvement can further enhance the overall effectiveness and impact of the reviewers' contributions to the learning experience among examinees.

According to the UNESCO International Institute for Educational Planning (2022), the teachers in which case the reviewers for this matter to be effective, must acquire a wide range of information, including facts, concepts, ideas, and vocabulary. It was also emphasized that for teachers to be effective, it is necessary to comprehend not just what instructors must know but also what enables them to apply knowledge.

The indicator, **As a reviewee, I observe that the reviewers emphasize specific areas of the subject – content that must be given importance**, obtained the highest mean of 3.54 (SD = 0.52) described as **Strongly Agree**. It indicates that the respondents assessed the reviewers as highly competent and that

the reviewers possessed excellence in highlighting essential areas of the subject matter and effectively conveying clear information about the content of the course/subject.

The most recent study by Jeschke et al. (2021) manifested that to teach effectively, it is emphasized that teachers must possess both subject-specific information (such as content knowledge and pedagogical content knowledge) and the ability to use that knowledge in challenging classroom scenarios. This is manifested in the data, where reviewers provide clear information about the content when conducting review sessions.

It was also noted that a teacher's competency should not be boiled down to information only but rather manifested by the capacity to master a particular teaching needs in the classroom. This also means that reviewers possess the ability to convey specific areas that must be highlighted during review sessions.

On the other hand, the indicator, **As a reviewee, I observe that the reviewers can provide the same quality of input even during the online review session**, got the lowest mean score of 3.31 (SD = 0.64), described as **Strongly Agree**. Although considered the lowest mean, the respondents still strongly agree that they perceived reviewers as highly competent. These slightly lower scores suggest that there may be room for improvement in maintaining consistent quality during online review sessions and in using the different technology-driven - platforms and programs.

The study conducted by Zhou (2019) mandated that teachers must understand not only the significant impact of new technology on the subject knowledge system but also the appropriate technology to be utilized in each individual educational setting. This means that reviewers must consider not only the substance but also the means as to how it should be delivered during online review sessions to effectively provide the same quality of input among examinees.

Møller et al. (2020) noted that instructors, in which case in this study, the reviewers, should explore innovative strategies, such as interactive online activities to enhance the application of knowledge in real-life scenarios during online review sessions. This is very important since the licensure examination is designed to assess whether examinees are ready to face real – life challenges. The study also aligns with the current study's findings, highlighting the importance of continuous improvement in the competency of reviewers or instructors. By addressing the areas of enhancing the quality of input during online review sessions and promoting the practical application of knowledge in real-life scenarios, instructors can further enhance the learning experience of the examinees. This method can improve student engagement, motivation, and better learning outcomes. This is supported also by Luft (2020), wherein she emphasized that any educator should know that content knowledge is important in teaching and they see subject matter knowledge as knowledge in the discipline taught by a teacher. He even added that there are different ways in which teachers are constrained in their subject matter knowledge.

**Table 2 Distribution of the Reviewers' Competency Level as perceived by the Respondents based on Delivery of Content**

Indicators	Mean	SD	Description
As a reviewee, I observe that the reviewers... presents the content of the subject matter, tailored to the reviewees' Knowledge.	3.45	0.51	Strongly Agree
used presentation that is vivid and readable even at longer distance.	3.53	0.63	Strongly Agree
present the content following a clear and logical framework,	3.48	0.64	Strongly Agree

highlighting the important aspects			
allow and encourage reviewees participation during review session	3.56	0.64	Strongly Agree
facilitate meaningfully student-professor interaction during review session.	3.60	0.55	Strongly Agree
attend and respond clearly to questions asked during review classes.	3.52	0.54	Strongly Agree
adequately provide the most appropriate instructional mode with the given subject/course being delivered.	3.52	0.56	Strongly Agree
used pre – recorded videos or presentation efficiently during online classes.	3.36	0.64	Strongly Agree
employ ICTs (Information and Communication Technologies) effectively during review classes.	3.28	0.63	Strongly Agree
can provide the same quality of discussion even during online review classes.	3.35	0.59	Strongly Agree
<b>Overall</b>	<b>3.47</b>	<b>0.59</b>	<b>Strongly Agree</b>

**Legend** 3.26 – 4.00 = Strongly Agree/Highly Competent 2.51 – 3.25 = Agree/Competent  
 1.76 – 2.50 = Disagree/Moderately Competent 1.00 – 1.75 = Strongly Disagree/Not Competent

Table 2 reveals the distribution of the reviewers’ competency level as perceived by the respondents based on the **delivery of content** with the overall mean of 3.47 (SD = 0.59) described as **Strongly Agree**. This implies that the respondents assessed the reviewers as highly competent based on the content they delivered. This observation suggests that, on average, the reviewers are perceived to possess a high level of competency in tailoring the content to the reviewees' knowledge, using vivid and readable presentations, following a clear and logical framework, and encouraging reviewees' participation during review sessions.

As cited by the University of Montevallo (2023), it categorizes content delivery tools as to how learners are given the content. Since it is the reviewers who deliver the content, Buffalo University (2023) emphasized the need to focus on teachers, in which case this study manifested the importance of giving importance to the reviewers who deliver the content. In addition, it also cited the difference between delivery mode, which refers to how the course is given, and teaching approaches, which focus on the methods for delivering lessons and promoting learning. In addition, delivery of content at the University of Milbourne (2023) refers to the educational objects that teachers exchange with their pupils.

The indicator, **As a reviewee, I observe that the reviewers facilitate student-professor interaction meaningfully during the review session**, obtained the highest mean of 3.60 (SD = 0.55), described as **Strongly Agree**. This high score indicated that the respondents strongly agree and perceive reviewers’ excellence in creating an interactive and engaging learning environment where students actively participate and interact with the reviewers during review sessions.

As the University of Milbourne (2023) emphasizes, delivered content is a component of each cycle of learning activities; it directly influences the chance for students to interact with their teachers and one another. This highlights the importance of creating a meaningful reviewer-reviewee interaction while influencing them to actively participate during review sessions.

Reddy (2018) stresses that the instructional—lecture format (one-to-many) is the very common means of delivering the content in which the review session is done in this manner. However, since the review program includes small group discussions among examinees who were divided into smaller groups and is not only limited to the actual review sessions, various techniques can be done like round table discussion *as* it brings together many viewpoints and allows *the* examinees *to* have an opportunity to speak up rather than just listen.

On the other hand, the indicator, **As a reviewee, I observed that the reviewers employ ICTs (Information and Communication Technologies) effectively during review classes**, got the lowest mean of 3.28 (SD = 0.63), described as **Strongly Agree**. Although respondents strongly agree that reviewers are highly competent, this slightly lower score suggests that there may be room for improvement in effectively utilizing technology and ICT during online review classes. This is supported by the study of Zhou (2019) that the content should be supplied in a variety of ways, whether using an asynchronous or synchronous manner, since the pre – recorded can be done and viewed by the examinees depending on their availability and interest. Additionally, Dunn and Kennedy (2019) highlighted the benefits of incorporating technology in education and its impact on student engagement and learning outcomes. This emphasizes the relevance of ICT in delivering the content during online review activities.

The results suggest that reviewers generally possess a high level of competency in delivering content and creating an interactive learning environment. However, there may be a need to focus on enhancing the effective use of ICTs and pre-recorded materials during online review classes. Addressing these areas of improvement can further enhance the overall effectiveness and impact of the reviewers' contributions to the examinees' learning experience.

Nonetheless, the data indicates that the reviewers are perceived as highly competent in delivering the content and in creating an interactive learning environment. However, there is a need to focus on effectively utilizing technology and pre-recorded materials during online review classes. Dunn and Kennedy (2019) highlighted the benefits of incorporating technology in education and its impact on student engagement and learning outcomes. The authors found that using technology-enhanced instructional strategies, such as multimedia presentations and online resources, can improve student achievement and engagement. This suggests that effectively utilizing technology, including pre-recorded materials, can enhance the learning experience during online review classes or any other review activities. The results of this observation align with existing research on the benefits of technology in education and support the idea that effectively utilizing technology and pre-recorded materials during online review classes can enhance the learning experience. Incorporating multimedia presentations, online resources, and interactive technologies can promote student engagement, facilitate active learning, and improve learning outcomes.

**Table 3 Distribution of the Reviewers' Competency Level as perceived by the Respondents based on Assessment Activity**

Indicators	Mean	SD	Description
As a reviewee, I observe that the reviewers... provide assessment activity that would stimulate learning during review classes.	3.56	0.64	Strongly Agree
allow a better and deeper understanding of the subject matter	3.54	0.52	Strongly Agree



through in-between assessment techniques			
formulate questions that would foster critical thinking among reviewees.	3.60	0.50	Strongly Agree
help reviewees better understand as to how questions should be properly approach.	3.56	0.51	Strongly Agree
create questions during review classes based on the different level of difficulty.	3.62	0.49	Strongly Agree
design questions that would promote the acquisition of professional competencies.	3.50	0.63	Strongly Agree
create assessment as learning during review session as part of the reviewees review activity.	3.48	0.63	Strongly Agree
start the review class with pre-test or any assessment activity before initiating the formal discussion.	3.54	0.62	Strongly Agree
ask questions that would encourage review class participation.	3.53	0.58	Strongly Agree
can still design effective assessment activities and create quality questions during online review classes.	3.52	0.56	Strongly Agree
<b>Overall</b>	<b>3.55</b>	<b>0.57</b>	<b>Strongly Agree</b>

**Legend:** 3.26 – 4.00 = Strongly Agree/Highly Competent 2.51 – 3.25 = Agree/Competent 1.76 – 2.50 = Disagree/Moderately Competent 1.00 – 1.75 = Strongly/ Disagree/Not Competent

Table 3 discloses the distribution of the reviewers' competency level as perceived by the respondents based on assessment activity with an overall mean of 3.55 (SD = 0.57), described as **Strongly Agree**. Overall, the data suggests that the reviewers are perceived as highly competent in designing assessment activities that stimulate learning and foster critical thinking. However, there is a need to focus on designing assessment activities that promote the acquisition of professional competencies and incorporate assessment as a learning tool during review sessions. For example, Sokhanvar et al. (2021) have shown that incorporating authentic assessment activities that mirror real-world professional scenarios can enhance the acquisition of professional competencies. The findings revealed that students who engaged in authentic assessment activities, such as case studies or simulations, demonstrated higher levels of competency in applying their knowledge to real-life situations.

The results of the study align with the idea that designing assessment activities that promote the acquisition of professional competencies and incorporating assessment as a learning tool during review sessions can enhance the overall learning experience. By providing opportunities for students to apply their knowledge in authentic scenarios and receive timely feedback, students can develop the necessary skills and competencies required in their professional fields.

The common assessment activity in any review activity is done through paper and pen – Multiple Choice Question type. This is done as the Licensure Examination is done in a similar assessment tool to check whether the individual reviewee, for that matter, is ready to practice the profession. It was noted in the study conducted by Melser et al. (2020) that properly constructed Multiple Choice Questions allow the evaluation of taxonomically higher-order cognitive skills like knowledge application, interpretation, or synthesis rather than testing the simple recall of isolated facts. This is necessary since the board examination is designed to check the level of comprehension of an individual taker with due consideration of the different levels of difficulty.

The results manifested that the indicator, **As a reviewee, I observe that reviewers create questions during review classes based on the different levels of difficulty** has the highest mean of 3.62 (SD = 0.49) described as **Strongly Agree**. This finding suggests that the respondents strongly agree that reviewers are excellent at designing assessment activities that challenge reviewees at various levels of difficulty and promote critical thinking skills. This also indicates that the reviewers are successful in creating a stimulating learning environment during review sessions.

Catanzano et al. (2022) outlined four essential requirements for a well-written question: the question's content should be pertinent and significant to the subject matter being tested; it should distinguish between people who understand the material or have topic knowledge and those who do not; it must be clear and unambiguous; and it must test knowledge at the proper level for examinees. Since the board examination is created in the different levels of difficulty, having questions that mimic the actual test construction greatly helps the reviewee pass the licensure examination. To create questions and exams that are psychometrically sound, MCQ authors and editors must follow strictly to normative standards for question composition (Catanzano, Jordan & Lewis, 2022). Thus, reviewers should always adhere to maintain the quality of questions created to produce good passing performance among examinees.

On the other hand, the indicator, **As a reviewee, I observe that reviewers create assessment as learning during review sessions as part of the reviewees' review activity**, has the lowest mean of 3.48 (SD = 0.63) described as **Strongly Agree**. While this indicator still received a high mean score, there may be room for improvement in designing assessment activities that specifically target the acquisition of professional competencies and incorporating assessment as a learning tool during review sessions. Addressing these areas can further enhance the effectiveness of the assessment activities and contribute to the examinees' overall learning experience.

While MCQs are graded and scored objectively since there is no need for review or moderation as to the answers, either correct or incorrect, still it has some drawbacks (Jones, 2022). MCQs do not provide practical application and as a result, it would reduce the professional competencies. This is true in cases related to laboratory works where an individual can clearly remember and objectively answer a question but lacks the practical skills in doing it. MCQs are employed as self-assessment modules and during active teaching sessions with the use of audience response systems (Catanzano, 2022). However, creating assessments as learning during review sessions may not be done as always, considering the amount of time it requires especially when creating questions in the higher order thinking skills (HOTS).

**Table 4 Summary of the Reviewers' Competency Level as perceived by the Respondents**

Variables	Mean	SD	Interpretation
Knowledge of the Subject Matter	3.43	0.56	Highly Competent
Delivery of Content	3.47	0.59	Highly Competent
Assessment Activity	3.55	0.57	Highly Competent
<b>Overall</b>	<b>3.48</b>	<b>0.57</b>	<b>Highly Competent</b>

**Legend:** 3.26 – 4.00 = Highly Competent      2.51 – 3.25 = Competent  
 1.76 – 2.50 = Moderately Competent      1.00 – 1.75 = Not Competent

Table 4 displays the summary of the **reviewers' competency level** as perceived by the respondents with an overall mean score of 3.48 (SD=0.57), interpreted as **Highly Competent**. This suggests that

reviewers are perceived to possess a high level of competency in their knowledge of the subject matter, content delivery, and assessment activities. Overall, respondents strongly agree that reviewers demonstrated competence in these areas.

The highest competency, based on mean scores, is the **Assessment Activity**, with a mean score of 3.55 (SD = .057) interpreted as **Highly Competent**. This suggests that the reviewers excel in designing and implementing assessment activities that effectively evaluate the examinees understanding and promote learning. This is essential as the assessment activities will evaluate whether the individual reviewee is prepared to take the licensure examination. The crafting of the assessment activity, more specifically the MCQ, plays a vital role in assisting the reviewee in passing the exam. This means that reviewers design the questions according to the different levels of difficulty based on Revised Bloom’s Taxonomy as the primary basis for making board exam questions. A well-crafted MCQ as an assessment tool improves the quality of input among examinees. Designing problems that call for multi-logical thinking—which is defined as thinking that requires knowledge of more than one fact to logically and systematically apply concepts to a problem (Brame, 2023), can be useful when creating multiple-choice items to test higher-order thinking.

Moreover, the findings suggest that the reviewers are generally perceived as highly competent in their knowledge of the subject matter, delivery of content, and assessment activities. This indicates that the reviewers are effective in their roles and contribute positively to the learning experience of the examinees. The high mean scores suggest that the reviewers are meeting the respondents' expectations regarding their competency.

However, it is important to note that the standard deviation for the overall competency level is 0.57. This indicates that there is some variability in the respondents' perceptions of the reviewers' competency. This may be true since a few reviewers are not competent and still need improvement. Further investigation may be needed to understand the factors contributing to this variability and to identify potential areas for improvement to enhance the overall effectiveness and impact of the reviewers' contributions.

**Problem 2. How do respondents perceive their study skills in terms of time management and procrastination, concentration and memory, study aids and note-taking, test strategies and test anxiety and organizing and processing information?**

**Table 5 Distribution of the Respondents' Perception on the Study Skills in terms of Time Management and Procrastination**

Indicators	Mean	SD	Description
I arrive at review classes and other review activities on time.	3.38	0.73	At all Times
I devote sufficient study time to each of my review lessons.	3.30	0.71	At all Times
I schedule definite time and outline specific goals for my study time.	3.21	0.77	Most of the Time
I prepare a "to do" list daily.	3.17	0.80	Most of the Time
I avoid activities which tend to interfere with my planned schedule.	2.95	0.78	Most of the Time

I use my time properly and alert during study schedule.	3.23	0.79	Most of the Time
I make up daily activity and study schedules.	3.19	0.77	Most of the Time
I begin reviewing my task before starting my study routine.	3.07	0.76	Most of the Time
I make it sure to use time wisely and appropriately.	3.36	0.78	At all Times
I remove activities or reduce activities considered as unproductive.	3.11	0.74	Most of the Time
<b>Overall</b>	<b>3.20</b>	<b>0.76</b>	<b>Most of the Time</b>

**Legend:** 3.26 – 4.00 = At all Times/ Excellent Study Skill      2.51 – 3.25 = Most of the Time/Good Study Skill  
 1.76 – 2.50 = Sometimes/ Enough Study Skill      1.00 – 1.75 = Never/ Bad Study Skill

Table 5 presents the distribution of respondents' study skills in terms of **time management and procrastination** with an overall mean score of 3.20 (SD = 0.76), described as **Most of the Time**. This means that respondents possess good study skills in terms of time management and procrastination.

Though many students have struggled to organize things so they may complete their review tasks on time and are frequently seen to put off completing their tasks, however, things change when they graduate and become a reviewees. According to Kristy's research, procrastination and time management are related. This means that if the reviewee does not properly manage their task, they may easily procrastinate. In one study, it was cited that a person's work is influenced by their capacity for time management. However, Septemberi (2018) found no connection between time management and task postponement (procrastination) in her research.

Looking at the results, the indicator **I arrive at review classes and other review activities on time** has the highest mean of 3.38 (SD = 0.73), described as **At all Times**, indicating that the respondents excel in this area. This suggests that respondents prioritize punctuality and allocate adequate time for their review activities, which are essential study skills for effective learning. However, accordingly, time management has no impact on students' learning results, though Hen (2018) stipulated that academic procrastination is a common practice among students that has a detrimental effect on their wellbeing and performance. This may be true for examinees who are not good at time management but can still manage to have learning progress since they have excellent academic performance.

As a result, students' capacity for time management is not the sole factor in determining the degree of their skills, though it can be viewed that proper time management can decrease student academic procrastination, as it was found that proper time management reduces academic procrastination. This means that if reviewees diligently attend all review activities and make sure to use the review time wisely, it can efficiently increase their study skills in preparation for the licensure examination. This was emphasized by Goroshit, (2018) and Zacks & Hen (2018) that procrastination is a common problem in academic contexts and has a variety of detrimental effects.

On the other hand, the indicator **I avoid activities that tend to interfere with my planned schedule** received the lowest mean of 2.95 (SD = 0.78), described as **Most of the Time**. This means that the respondents avoid activities that hinder their planned schedule. Although this indicator still received a mean score above 2.50, indicating a good study skill, there may be room for improvement in terms of avoiding distractions and eliminating unproductive activities that hinder effective time management and study habits. This is true in cases where examinees should do review – related pieces of stuff but opted

to do other things like working, attending some house chores, playing video / online games, and other distractions.

According to Covey (2019), self-management and time management go hand in hand. Self-management can be summed up as a technique for people to plan their lives according to the idea of ranking their priorities. In addition, with the foregoing, Macan (2018) defines time management as which people first identify their wants and desires before ranking them according to importance. This means examinees do not review their tasks before having their study routine and as a result, they cannot avoid activities that tend to interfere with their schedule activity.

Since time management is one of the internal elements that influences learning, it plays a crucial part in educational activities. Effective time management is a motivator and impetus for learning since it makes students more interested and less bored with the material they are studying, which improves learning outcomes (Sepriana, 2020). As a result, it might improve their study skills.

Overall, the results suggest that the respondents generally possess good study skills in terms of time management and procrastination. However, there is variability in their adherence to certain study habits, as indicated by the standard deviation of 0.80 for the indicator "I prepare a 'to do' list daily." This higher standard deviation suggests that there is a wider range of responses and perceptions among the respondents regarding this study skill. At the same time, the data indicates that the respondents demonstrate good study skills in terms of time management and procrastination. This may be true since their "to-do" list is not frequently updated or religiously followed.

One study by Mak (2019) examined the effectiveness of a time management intervention on college students' academic performance. The intervention included workshops and individual coaching sessions focused on goal setting, prioritization, and time allocation. The results showed that students who participated in the intervention significantly improved their time management skills and achieved higher academic performance than the control group.

This study supports the findings presented, highlighting the importance of implementing interventions and providing support to enhance study skills through time management among students. By equipping students with effective strategies for managing their time, setting goals, and eliminating distractions, educational institutions can empower students to optimize their academic performance and achieve their full potential.

**Table 6 Distribution of the Respondents' Perception on the Study Skills in terms of Concentration and Memory**

Indicators	Mean	SD	Description
I have the "study-place habit," to direct myself and devote my time to study.	3.28	0.88	At all Times
I study in a place free from auditory and visual distractions.	2.90	1.07	Most of the Time
I find to concentrate and give undivided attention to the task for at least 20 minutes.	3.21	0.66	Most of the Time
I am confident with the level of concentration that I have both online and face to face discussion.	3.19	0.73	Most of the Time
I have an accurate understanding on the material	3.22	0.63	Most of the Time



that I am reading or studying.			
I learn with the intention of remembering and applying the things I'm reading.	3.17	0.53	Most of the Time
I reread the materials I just finish reading to increase retention.	3.33	0.76	At all Times
I recall readily those things which I have studied.	3.21	0.59	Most of the Time
I can give my full attention whenever there is someone talking or discussing concepts or theories both online and face to face discussion.	3.12	0.73	Most of the Time
I intend to listen and focus my attention for better comprehension and memory recall both online and face to face discussion.	3.28	0.68	At all Times
<b>Overall</b>	<b>3.19</b>	<b>0.73</b>	<b>Most of the Time</b>

*Legend:* 3.26 – 4.00 = At all Times/ Excellent Study Skill      2.51 – 3.25 = Most of the Time/Good Study Skill  
 1.76 – 2.50 = Sometimes/ Enough Study Skill      1.00 – 1.75 = Never/ Bad Study Skill

Table 6 shows the respondents' study skills distribution in terms of **concentration and memory** with an overall mean of 3.19 (SD = 0.73), described as **Most of the Time** suggesting that the respondents possess good study skills in this area. According to Bree (2020), an individual may directly or indirectly improve listening comprehension through their vocabulary. For examinees, this means that listening comprehension is very important when it comes to concentration and memory, which is vital to improve study skills. In addition, May (2019) cited that concentration and memory are considered as siblings. Without classroom concentration, students cannot memorize the subject matter. Even a student has a good concentration, without memory it may not be useful.

Overall, the data imply that providing guidance and support to help students create conducive study environments and improve their ability to concentrate and engage in discussions could enhance their study skills. Strategies such as promoting effective time management, providing study tips, and offering resources for managing distractions can be beneficial in improving concentration and memory recall. Memory, particularly verbal memory, contributes to the process of creating meaning in terms of general cognitive resources (Pimperton & Nation, 2022). This means that the more participative the reviewees during the review session, the more they likely improve their concentration. In summary, the respondents demonstrate good study skills in terms of concentration and memory, though there is room for improvement in certain areas.

This observation resonates with the findings of Pastötter and Bäuml (2019), who investigated the effectiveness of retrieval practice, which involves actively recalling information from memory to enhance long-term retention. The findings revealed that students who engaged in retrieval practice showed significantly better long-term retention compared to those who simply reviewed the material. This suggests that incorporating retrieval practice techniques, such as self-quizzing, can improve memory recall and enhance study skills.

Thus, by implementing interventions and strategies supported by research, educational institutions can help students enhance their study skills in terms of concentration and memory. Incorporating retrieval practice, creating conducive study environments, removing distractions, and utilizing effective learning

techniques can significantly improve students' ability to concentrate, retain information, and optimize their learning experience.

The indicators **I have the study-place habit, to direct myself and devote my time to study** and **I intend to listen and focus my attention for better comprehension and memory recall both online and face to face discussion** are the highest indicators with a mean of 3.28 (SD = 0.88 and 0.68), described as **At all Times**. This means that the respondents have a study habit, and they intentionally listen and focus their attention during discussion. This metric means that the respondents have excellent study skills, both in terms of setting up a focused study space and using efficient review techniques to improve memory recall.

Examinees have their habit of finding a place where they can give their full and undivided attention when studying at the same time, improving their focus in both face-to-face and online classes. It was also noted that they reread whatever reading material for better retention. Listening to review lectures improved the examinees' vocabulary about the content and their study skills. Based on the empirical research done, it has demonstrated a strong relationship between vocabulary and listening comprehension (Lervg et al., 2018; Wolf et al., 2019). According to these results, vocabulary plays a role in listening comprehension, even in higher grades (Lervg et al., 2018). This means that the vocabulary of the examinees about the content is being increased as they increase their listening comprehension and as a result, improve their study skills in preparation for the licensure examination.

On the other hand, the indicator **I study in a place free from auditory and visual distractions** is the lowest, with a mean of 2.90 (SD = 1.07) described as **Most of the Time**. These clues imply that the respondents might have trouble keeping their study space free from distractions and participating fully in conversations.

Nonetheless, it is worth noting that another indicator **I study in a place free from auditory and visual distractions** got lowest mean of 2.90 (SD= 1.07), described as **Most of the Time**. This indicates a wider range of responses and perceptions among the respondents regarding this study skill. This simply means that not all reviewees have a good place to study and focus for their review.

Furthermore, while it is true that examinees find an area where they can study and concentrate, it cannot be denied that it is free from some distractions. As a result, it disturbs their focus. This is true among examinees who are living in their respective houses where chores and other distractions are unavoidable. The same is true for those who are living in boarding houses where noise and other distractions are inevitable. While they try to listen and focus their attention, it cannot be denied that they cannot give their full and undivided attention, which may be due to distractions. This includes not only the people around them but also the use of digital devices such as mobile phones.

Specifically, mobile phones have become a major part of people's daily life. People, especially youths, use mobile technology for various purposes (Alalwan et al., 2018). Mobile phone manufacturers offer new features and functionalities that have compelled users to use them. While it helps the reviewee to search and view things fast, it cannot be denied that it can also cause distractions, which also affects academic performance. Recent research studies have analyzed the impact of mobile phone distraction on social media use during studying as well as its impact on memory and cognition.

**Table 7 Distribution of the Respondents' Perception on the Study Skills in terms of Study Aids and Note-taking**

Indicators	Mean	SD	Description
I intentionally take down notes whenever someone is discussing or sharing ideas both online and face to face discussion.	3.33	0.71	At all Times
I can understand the lecture both in online or face to face discussion while I am taking notes.	3.19	0.65	Most of the Time
I organize my notes in meaningful manner such as outline format.	3.20	0.78	Most of the Time
I review and edit my notes systematically.	3.19	0.78	Most of the Time
I take notes on supplementary reading materials.	3.33	0.72	At all Times
I have a system for marking textbooks.	3.17	0.80	Most of the Time
I mark or underline parts I think are important that are important while reading.	3.52	0.62	At all Times
I write notes in the book while I read	3.13	0.88	Most of the Time
I think about how I will use the information I just jot down	3.20	0.65	Most of the Time
I check and correlate my notes for long term understanding.	3.35	0.63	At all Times
<b>Overall</b>	<b>3.26</b>	<b>0.72</b>	At all Times

**Legend:** 3.26 – 4.00 = At all Times/ Excellent Study Skill      2.51 – 3.25 = Most of the Time/Good Study Skill  
 1.76 – 2.50 = Sometimes/ Enough Study Skill      1.00 – 1.75 = Never/ Bad Study Skill

Table 7 shows that respondents possess excellent study skills in terms of **study aids and note-taking**, with an overall mean score of 3.26 (SD = 0.72), described as **At all Times**. This means that the respondents have an excellent study skill in terms of study aids and note-taking. This suggests that, on average, the respondents demonstrate strong study skills in this area. As cited by Zçakmak (2019) taking notes is a method for improving understanding. This is very helpful for examinees as it will allow them to add further additional information during face-to-face or online discussions. The main benefit of note-taking is that it spares pupils from having to read the entire book. Since it draws students' attention to the reading or listening material, it enhances students' understanding abilities. It keeps them from missing what is being taught in class. Additionally, it fosters independence in students and aids in their retention of the critical knowledge they have learned (Umaadevi & Rekha, 2019).

Therefore, the data suggests that the respondents generally possess good to excellent study skills regarding study aids and note-taking. However, there is room for improvement, such as developing systematic approaches to marking textbooks and exploring alternative note-taking strategies. Educational institutions can provide guidance and support to help students enhance their note-taking skills and utilize effective study aids, ultimately optimizing their learning experience. The result is consistent with the work of Wang et al. (2020), who investigated the effectiveness of a note-taking strategy called the Cornell method – a system that allows an individual to visualize and organize notes. The findings revealed that students who used the Cornell method demonstrated better recall and

comprehension of lecture material than those who used traditional note-taking methods. This suggests that teaching students effective note-taking strategies, such as the Cornell method, can enhance their ability to organize and retain information.

In the same line, these authors found that students who were provided with visual aids, such as diagrams or charts, during their study sessions performed better on tests and retained information more effectively compared to those who relied solely on text-based materials. This is true in cases where reviewers are doing lectures through PowerPoint presentations during the review session. In this way, examinees were given the opportunity to take down notes. Also, this highlights the importance of incorporating visual study aids to enhance learning and comprehension. By implementing interventions and strategies supported by research, educational institutions can help students enhance their note-taking skills and effectively utilize study aids.

The indicator **I mark or underline parts I think are important while reading** is the highest with a mean score of 3.52 (SD = 0.62) described as **At all Times**. The respondents used to mark or underline things that they recognized as important. This simply means that examinees excel in actively identifying and highlighting important information while reading and engaging in effective review and consolidation of their notes for better long-term understanding. This is also a manifestation that examinees highlight significant terms or phrases as they read the material while correlating their notes for long-term understanding in preparation for the licensure examination. It was also noted that when taking notes from a written document during a lesson, notes that are often taken under a time constraint can be written. This is very common when examinees review things on their own, especially when reading their notes or other materials. This is why note-taking was mostly associated with note taking from listening (61%), which was followed by note taking from reading (31%), according to a study conducted by Zçakmak and Sarigöz (2019) with university students.

However, the indicator **I write notes in the book while I read** got the lowest with a mean score of 3.13 (SD = 0.88), described as **Most of the Time**. This means that the examinees wrote something in the book as they read. Although still rated as good study skills, these slightly lower scores suggest that there may be room for improvement in terms of incorporating effective note-taking strategies such as writing notes directly in the book and developing a systematic approach to marking textbooks. As manifested by Witherby and Tauber (2019) that in the context of classes, taking notes is often seen as beneficial since it helps students retain the material and prepare for tests. In contrast of having the lowest mean, it has the highest standard deviation in this data set. This higher standard deviation indicates a wider range of responses and perceptions among the respondents regarding this study skill indicating that there are noticeable variations in the responses of the examinees as not all might really write as the review session progresses.

This suggests that there are varying preferences and practices among individuals when it comes to note-taking in the book while reading. Though at some point examinees may not find this useful. In one study conducted by Zçakmak (2019), he pointed out that no research indicating which of the skills taking notes while reading and while listening, was more useful. As a result, examinees tend to read the material without writing in it. Examinees also do not practice marking on the textbooks. This is also true as most of the time examinees do not rely too much on the book but on the ready and review materials being shared and provided. It could also be inferred that not all examinees practice writing on notes while they are reading any review materials. It is stressed that taking notes is a complicated procedure that causes students to take notes ineffectively or incompletely. This may be the reason that some examinees may

not always find it useful to take down notes while listening or reading. Rather, they opted to focus on reading.

**Table 8 Distribution of the Respondents' Perception on the Study Skills in terms of Test Strategies and Test Anxiety**

Indicators	Mean	SD	Description
I try to find out the coverage of the exam and how the exam will be graded.	3.25	0.58	Most of the Time
I feel confident that I am prepared for the exam.	3.16	0.78	Most of the Time
I try to imagine possible test questions during my preparation for an exam.	3.35	0.71	At all Times
I take time to understand the exam questions before starting to answer.	3.55	0.58	At all Times
I follow directions carefully when taking an exam.	3.67	0.53	At all Times
I get a good night rest prior to a scheduled exam.	2.73	0.93	Most of the Time
I calmly able to recall what I know during an exam.	3.28	0.55	At all Times
I understand the structure of the different types of tests and how to handle it.	3.14	0.70	Most of the Time
I can manage my nervousness and other anxieties before and during taking the exam.	3.26	0.66	At all Times
I can very well manage myself as to how I should approach the different types of exams.	3.25	0.61	Most of the Time
<b>Overall</b>	<b>3.26</b>	<b>0.66</b>	<b>At all Times</b>

**Legend:** 3.26 – 4.00 = At all Times/ Excellent Study Skill 2.51 – 3.25 = Most of the Time/Good Study Skill 1.76 – 2.50 = Sometimes/ Enough Study Skill 1.00 – 1.75 = Never/ Bad Study Skill

Table 8 displays the respondents' study skills in terms of **test strategies and test anxieties** with an overall mean of 3.26 (SD = 0.66), described as **At all Times**. This means that the respondents possess excellent study skills in terms of test strategies and managing test anxiety. Testing is one of the main ways to establish competency in the culture today. This is true as individual graduates of BS Criminology need to pass the Criminologist Licensure Examination (CLE) to obtain the required eligibility to apply to various law enforcement agencies. Passing the licensure examination allows any graduates to show that they are competent enough to enter various offices whether in law enforcement agencies or in the academe. This means that test strategies are vital to avoid test anxieties, especially during actual examinations. This was emphasized by Custer (2018) that academic procrastination is related and might be one reason of the reason of academic anxieties.

The indicator **I follow directions carefully when taking an exam** got the highest mean score of 3.67 (SD=0.53), described as **At all Times**. This means that the reviewees follow directions carefully during examinations. This indicator suggests that the respondents excel in carefully reading and comprehending exam instructions and questions, which are crucial skills for effective test performance. It also shows that reviewees are diligent in following all directions while taking the exam. With this, it reduces test



anxieties of the reviewee as the exam taker. Test anxiety in higher education is frequently linked to poor learning results, even though some research claims that controlled levels of test anxiety can have good impacts. One way of test strategy and reducing test anxieties is having the Mock Board and Pre-Board exam among examinees which mimic the actual licensure examination. In this way, it helps all examinees to prepare better in taking the exam as well as practice them to carefully follow and not miss any instructions.

The result also manifested that examinees take time to understand each question before they answer. This is done by simply writing their answer first in the test questionnaire before shading the answer sheet as this helps them reduce test anxiety. Lowe (2018) noted that, college students' exam anxiety is influenced by a variety of circumstances, necessitating a more multifaceted measuring strategy. It is also appropriate to consider the social part of test-taking, which occurs most commonly before and after the exam, as the notion that doing well on an exam equates to proficiency in that subject (Zwettler, 2018).

Nonetheless, the lowest indicator **I get a good night rest prior to a scheduled exam** got the lowest mean score of 2.73 (SD = 0.93), described as **Most of the Time**. This means that the reviewees lack enough rest or sleep prior to the exam. Although this indicator still indicates good study skills, they suggest that there may be room for improvement in terms of managing test anxiety and ensuring adequate rest before exams. This shows that reviewees or the takers are having test anxieties as they are not getting a good night's rest prior to the scheduled exam. This is true not only during the actual licensure examination but also during Mock Board and Pre-Board exams since they will know how far they have prepared and provide a strong basis for whether they will take the licensure examination or not.

Accordingly, it can also be noted that the highest standard deviation in this data set is 0.93, which corresponds to the indicator "I get a good night rest prior to a scheduled exam." This indicates a wider range of responses and perceptions among the respondents regarding their ability to prioritize rest and manage their sleep patterns before exams. This could also mean that some if not all are not having enough rest the day before the scheduled examination.

The findings suggest that the respondents generally possess excellent study skills in terms of test strategies and managing test anxiety. However, there is a need to focus on improving rest and confidence levels before exams. Providing guidance and support in managing test anxiety, promoting healthy sleep habits, and building self-confidence can help students optimize their test performance and overall academic success.

Several studies have explored interventions and strategies aimed at managing test anxiety, promoting healthy sleep habits, and building self-confidence among students. In one study conducted by Yusefzadeh et al. (2019) examined the effectiveness of test anxiety reduction programs on students' test performance. The results showed that students who participated in the program demonstrated significant improvements in their test scores and reported reduced levels of test anxiety. This suggests that providing guidance and support in managing test anxiety can positively impact students' test performance.

Another study by Stormark et al. (2019) investigated the relationship between college students' sleep habits and academic performance. The findings revealed that students who consistently practiced healthy sleep habits, such as getting adequate sleep and maintaining a regular sleep schedule, performed better academically than those with poor sleep habits. This highlights the importance of promoting healthy sleep habits to optimize academic performance.

As a result, the findings of this study lend credence to the contentions made in earlier research to the effect that assisting students in developing healthy sleeping patterns, overcoming test anxiety, and increasing their level of self-confidence can have a significant positive impact on their overall academic performance. Educational institutions can effectively support students in achieving their academic goals and making the most of their potential when they implement interventions that are based on the findings presented here.

**Table 9 Distribution of the Respondents' Perception on the Study Skills in terms of Organizing and Processing Information**

Indicators	Mean	SD	Description
I can clearly distinguish readily between important and unimportant points.	3.21	0.54	Most of the Time
I break assignments into manageable parts.	3.16	0.65	Most of the Time
I maintain a critical attitude during my study - thinking before accepting or rejecting.	3.31	0.61	At all Times
I relate material learned in one source to materials of other source.	3.33	0.64	At all Times
I organize facts in a systematic way.	3.30	0.59	At all Times
I use questions to better organize and understand the material I am studying.	3.21	0.66	Most of the Time
I try to find the best method to understand a certain concepts.	3.45	0.56	At all Times
I solve a problem by focusing on its main point	3.41	0.56	At all Times
I comprehend my dealings with the things that I need to accomplish	3.48	0.56	At all Times
I cross – check information from one source to another	3.39	0.55	At all Times
<b>Overall</b>	<b>3.32</b>	<b>0.59</b>	<b>At all Times</b>

*Legend:* 3.26 – 4.00 = At all Times/ Excellent Study Skill      2.51 – 3.25 = Most of the Time/Good Study Skill  
 1.76 – 2.50 = Sometimes/ Enough Study Skill      1.00 – 1.75 = Never/ Bad Study Skill

Table 9 signifies that the respondents demonstrated strong study skills in **organizing and processing information** with an overall mean score of 3.32 (SD = 0.59) described as **At all Times**. The reviewees agree to excel in organizing and processing information. This result indicates that the respondents possess excellent study skills. It means that examinees organize and process information as they are geared towards board examination. This includes listing, identifying, categorizing, characterizing data, information organization, to organize and classify things as part of the reviewee’s preparation (Rupp, 2022).

The highest indicator based on mean scores is **I comprehend my dealings with the things that I need to accomplish** with a mean of 3.48 (SD = 0.56) described as **At all Times**. The reviewees comprehend their dealings with the things they need to finish. This means that this indicator suggests that the respondents excel in understanding the importance of their tasks and actively seek effective methods to

comprehend complex concepts. This means that examinees check the things that must be done while at the same time find the best method to understand a certain concept. According to Rupp (2022), learning is organized by compiling all pertinent data regarding a certain subject and organizing it effectively. The ultimate objective is to develop a system that aids students in gathering, evaluating, and storing new information. Information that is well-organized for educational reasons should also be simple to find if you need to refer to it later, clear to read the second time, and simple to distribute.

On the other hand, the indicator **I break assignments into manageable parts** got the lowest mean score of 3.16 (SD = 0.65) described as **Most of the Time**. This means that the reviewees break their assignments into manageable tasks. Still, there may be room for improvement in breaking down assignments into manageable tasks and effectively identifying the significance of different points. This shows that examinees may find it hard to break assignments into manageable parts. This is true in cases where they are given the task to study in advance for the upcoming subject/course, which will be tackled at the next meeting.

However, as there are some changes in the schedule of the lecturer or line up with the subject, students are not prepared to answer the pre-test prepared since there were some unannounced changes due to the lecturer’s availability, which therefore changes the lineup of the subject/course. In the study conducted by (Gherardi (2019), he cited that concentration on practice is often disregarded. In case for the examinees, they failed to constantly practice breaking assignments into manageable task.

Furthermore, the observation implies that providing guidance and support in breaking down assignments into smaller parts and enhancing the ability to distinguish important information can further improve the respondents' study skills in organizing and processing information. By implementing strategies such as time management techniques, note-taking methods, and critical thinking exercises, educators can help students develop stronger study skills in these areas.

In a similar vein, Avivah et al. (2022) examined the effectiveness of various learning techniques, including summarization and highlighting, in promoting effective information processing and retention. The findings revealed that techniques such as summarization, which involves condensing information into concise summaries, and highlighting, which involves marking important points, were effective in improving students' ability to organize and comprehend information.

Thus, by implementing interventions and strategies supported by research, educators can help students develop stronger study skills in organizing and processing information. Teaching effective learning techniques, promoting note-taking practices, and incorporating critical thinking exercises can enhance students' ability to comprehend, organize, and retain information, ultimately optimizing their learning experience.

**Table 10 Summary of the Respondents' Study Skills**

Variables	Mean	SD	Interpretation
Time Management and Procrastination	3.20	0.76	Good Study Skills
Concentration and Memory	3.19	0.73	Good Study Skills
Study Aids and Note-taking	3.26	0.72	Excellent Study Skills
Test Strategies and Test Anxiety	3.26	0.66	Excellent Study Skills
Organizing and Processing Information	3.32	0.59	Excellent Study Skills
<b>Overall</b>	<b>3.25</b>	<b>0.69</b>	<b>Good Study Skills</b>

**Legend :** 3.26 – 4.00 = At all Times/ Excellent Study Skill      2.51 – 3.25 = Most of the Time/Good Study Skill  
1.76 – 2.50 = Sometimes/ Enough Study Skill      1.00 – 1.75 = Never/ Bad Study Skill

Table 10 shows the summary of the respondents' **study skills** with an overall mean of 3.25 (SD = 0.69), interpreted as a **Good Study Skills**. This means that the respondents manifested good study skills. This suggests that the respondents have some ability to manage their time effectively and avoid procrastination when it comes to their studies, are proficient in utilizing study aids and employing effective note-taking techniques to enhance their learning experience, possess effective strategies for approaching tests and managing test anxiety, have the ability to concentrate on things that they are doing for review preparation, and, organize things efficiently as they prepare for the licensure examination.

As shown in the table, the variable **organizing and processing information** received the highest mean score of 3.32, interpreted as **Excellent Study Skills**. This means that the reviewees can effectively organize and process information. This means that they are excellent in this study skill area. This also suggests that the respondents are proficient in organizing and effectively processing information, which is crucial for comprehending and retaining knowledge. This study skill is also being taught among examinees in connection to the assessment activity. By teaching examinees how to process information, they can have a higher possibility of picking the best answer among distractors as they take the licensure examination.

In the contrary, among the study skills provided, **Concentration and Memory** got the lowest mean of 3.19 (SD = 0.73), interpreted as **Good Study Skills**. While it is true that it shows an excellent mean score and does not show much variation in the responses based on its standard deviation, this study skill could still be improved. This also means that among the study skills, some of the examinees need to develop the habit of improving their concentration. This could also be attributed to the fact that modern technology, such as mobile phones and other electronic devices, greatly affected the concentration among examinees. Not to mention the different social media platforms available, which could be the cause of the limited concentration among them. While it is true that mobile phones have a lot of advantages, it cannot be denied that they can also limit the concentration and memory of students.

Thus, the data suggests that the respondents have good to excellent study skills in areas such as time management, concentration, study aids and note-taking, test strategies, and organizing and processing information. These skills are essential for effective learning and academic success. This finding resonates with a study conducted by Spitzer (2021), which examined the relationship between study skills and academic performance among college students. In the study, the author found that students who demonstrated strong study skills, including effective time management, concentration, utilization of study aids and note-taking, and strategic test-taking strategies, achieved higher academic performance compared to those with weaker study skills. This suggests that possessing these study skills can positively impact students' learning outcomes and overall academic success.

**Problem 3. Is there a significant relationship between the criminology reviewer's competencies and reviewee's study skills of the Examinees?**

**Table 11 Relationship between the Criminology Reviewer’s Competencies and Examinee’s Study Skills**

Study Skills	Reviewers' Competency Level			OVERALL
	Knowledge of the Subject Matter	Delivery of Content	Assessment Activity	
<b>Time Management and Procrastination</b>	.321** .000	.501** .000	.462** .000	.458** .000
<b>Concentration and Memory</b>	.436** .000	.517** .000	.494** .000	.512** .000
<b>Study Aids and Note-taking</b>	.339** .000	.464** .000	.425** .000	.436** .000
<b>Test Strategies and Test Anxiety</b>	.873** .000	.848** .000	.697** .000	.896** .000
<b>Organizing and Processing Information</b>	.267** .000	.423** .000	.388** .000	.385** .000
<b>Overall</b>	.374** .000	.522** .000	.485** .000	.491** .000

**Legend:** \*\*significant at  $p < 0.05$  alpha level S – significant NS – not significant

Table 11 connotes the relationship between the competencies of the Criminology reviewers and the study skills of the examinees. The values in the table represent the correlation coefficients (r-values) between the two variables.

The overall reviewer's competency level shows a strong positive relationship with the overall study skills of the examinees ( $r = 0.374, p < 0.05$ ). This suggests that as the competency level of the reviewers increases, the study skills of the examinees also tend to improve. Looking at the specific competencies, several observations could be derived.

There is a significant positive relationship between the reviewers' competency level in Knowledge of the subject matter and the corresponding study skill of the examinees ( $r = 0.321, p < 0.05$ ). This suggests that when the reviewers demonstrate a higher level of Knowledge in the subject matter, the examinees tend to have better study skills in terms of time management and procrastination.

This means that if reviewers are competent enough to show that they are knowledgeable in the subject matter, examinees tend to manage their time well to improve their study skills and avoid procrastination. With the reviewers competence regarding the subject matter it allows the latter to guide the examinees as to what should be given focus to pass the licensure examination. This is simply possible because the instructors (in which case the reviewers) become more and more professionals as they work in their specialized domains and pursue professionalization. Unlike the common practice setup in which faculty or instructors in the undergraduate program handle different kinds of subject matter, faculty who act as reviewers during the review program handle only those subjects in which they are competent and skilled enough to teach.

Providing the appropriate substance guides the focus of the examinees in better managing their time by reading what is necessary for the licensure examination. This effort reduces the waste of time and directs their attention to the topic that matters. Further, Zhou (2019) cited the significant impact of technology on the subject knowledge system and the appropriate technology to utilize in each educational setting.



This means that the reviewer's knowledge on the use of technology will greatly promote also the development of appropriate time management among examinees.

In terms of substance, it can also be gleaned that reviewers tend to follow the Table of Specifications (TOS), which serves as the bible of all the licensure examinations as to the subject matter and its appropriate difficulty level. The TOS is prepared by the appropriate Professional Regulatory Board of each program as regulated by the Professional Regulation Commission (PRC). This is true as PRC acts as the licensing board where Bates (2020) stipulated that the curriculum by a given program is mandated by some external factor and the Professional Regulatory Board (PRB) for Criminology is just one. Lastly, having the appropriate knowledge of the TOS gives the reviewer the competence to guide examinees on how they can improve their study skills efficiently in outlining the appropriate content and avoid consuming time on unnecessary things.

The reviewers' competency level in the delivery of content shows a significant positive relationship with the corresponding study skill of the examinees ( $r = 0.501$ ,  $p < 0.05$ ). This indicates that when the reviewers effectively deliver the content, the examinees tend to have better study skills in terms of concentration and memory.

The University of Montevallo (2023) categorizes content delivery tools according how learners are given the content and one tool that may be used to deliver information and content in various formats is content presentation. This is true in review classes, in which content is presented through PowerPoint presentations. The literature provided by Humber College (2020) pointed out that it is necessary to determine if content should be presented orally in a lecture. In this case, during the review program, the lecture is the prime consideration in delivering the content. It was even emphasized that different online platforms should be used to deliver the content or record lectures.

In connection to study skills in terms of concentration and memory, it shows that if the delivery of content through lectures with a PowerPoint presentation is done substantially, it directs the concentration of examinees during the lecture period and enhances their memory, thereby improving their study skills. Though it uses a teacher-centered approach where it only limits the reviewee to listen during the entire 3 to 4 hours of lecture in, which the University of Buffalo (2023) stipulated that it makes the learner passive, it encompasses all the given coverage. This makes the teacher-centered approach the best method for conducting review classes.

Moreover, in the delivery of content, the University of Buffalo stipulated that students should always think about the learning objectives and how students will attain them when selecting an approach. Even in the review, this ensures the attainment of the topics that need to be delivered in the given amount of time. However, if the content is not delivered well or if the reviewee finds it not interesting, they may opt to lose their concentration and reduce the inputs that they need to consider in their memory. One common is the use of mobile phones during review sessions.

As a result, due to attentional conflict, mobile phone distraction can have significant implications, such as short-term inconvenience. This may be towards either examinees or to the reviewers. Recent research studies have analyzed the impact of mobile phone distraction during studying and its impact on memory and cognition. As the University of Milbourne (2023) cited, technology has both advancements and alterations to the learning platform and has made it possible for students to access and participate in learning activities on their own schedules more easily in an online learning environment. This means that the use of technology has a lot of advantages, especially in delivering the content, but in the contrary, it also has a lot of disadvantages that might affect the concentration and memory of the

examinees during discussion. As a result, it affects their study skills in preparation for the upcoming licensure examination.

It is worth noting that there is a significant positive relationship between the reviewers' competency level in assessment activity and the corresponding study skill of the examinees in utilizing study aids and note-taking ( $r = 0.462$ ,  $p < 0.05$ ). This suggests that when the reviewers demonstrate competence in assessment activities, the examinees tend to have better study skills in terms of utilizing study aids and note-taking.

This means that if examinees have a good study aid, such as good material to read like handouts, textbooks, and other reading material, they perform well in any assessment activity. In like manner, examinees who tend to take notes during review classes perform better in any assessment activity. It keeps them from missing what is being taught in class. Additionally, it fosters independence in students and aids in their retention of the critical knowledge they have learned (Umaadevi & Rekha, 2019). Aside from the reading materials as study aids, examinees take photos during review sessions, which helps them during assessment. Additionally, as technology advanced, there have been certain modifications in students' note-taking habits. Instead of using a notebook and pencil, students can now take notes using some software that is installed on computers or mobile devices.

Further, time management and procrastination show a significant positive relationship with the corresponding study skills of the examinees in terms of test anxiety and test strategies ( $r = 0.458$ ,  $p < 0.05$ ). This indicates that when the examinees exhibit good time management and avoid procrastination, they tend to have better study skills in terms of test strategies and test anxiety.

The findings of the research project by Sepriana et al. (2020), the pandemic has a negative impact on learning, which includes a shift from in-person instruction to online instruction, an increase in the use of technology in instruction; and a rise in students' learning independence. This development affected the time management of all examinees, which made them procrastinate in their work and reading assignments. As a result, they tend to develop test anxieties rather than having a lot of test strategies in dealing with the exams.

According to Minarto's (2018) study, time management has a significant impact on students' academic success. This is true since, in most cases, academic success is measured through the different assessment activities. But, since they are having difficulty managing their time, they develop test anxieties, which affect their review preparation.

Academic stress is the product of long classes, frequent exams, unreasonable expectations from parents and teachers, various teaching philosophies, and student comparisons. A small number of studies have been done in the past to evaluate academic procrastination (Custer, 2018), time management (Kaya, Kaya, Pallos, & Küçük, 2022), and academic stress (Gurková & Zelenková, 2018) in comparison with various outcome variables. However, there is little proof that this population's procrastination, time management, and academic stress are related.

It is only appropriate to consider the social part of test-taking, which occurs most commonly before and after the exam, as the notion that doing well on an exam equates to proficiency in that subject is a social construct. Test anxiety, according to Zwettler (2018), may be influenced by interactions with professors, classmates, and academic programs (majors). After reviewing numerous studies, Zwettler (2018) posits that a greater sense of social identity will reduce exam performance anxiety, depressive symptoms, social interaction insecurity and increase achievement motivation.

Furthermore, there is a significant positive relationship between concentration and memory and the corresponding study skill of the examinees in terms of organizing and processing information ( $r = 0.436$ ,  $p < 0.05$ ). This suggests that examinees have better concentration and memory skills when organizing and processing information.

How children think during the learning process is not entirely independent from other aspects of their thinking (Zhou, 2019). This means that the concentration and memory of the examinees greatly influence as to how they organize and process information. Information organization is a useful tool for self-learners to plan out their own study. According to research, successfully organizing knowledge produces long-lasting effects, aids in students' goal-achieving, and improves learning outcomes and progress (Rupp, 2022). This means that if examinees can concentrate on organizing and processing information, they can better improve and retain the information longer.

Overall, the findings indicate that the competencies of the Criminology reviewers have a significant impact on the study skills of the examinees. When the reviewers demonstrate higher competency levels, the examinees tend to exhibit stronger study skills. This highlights the importance of competent reviewers in facilitating the development of effective study skills among the examinees.

The study findings of the relationship between the competencies of the Criminology reviewers and the study skills of the examinees align with previous research in the field. For example, a study conducted by Willson-Conrad and Kowalske examined the relationship between instructor competencies and student study skills in a college setting. The study found that instructors who demonstrated higher levels of competency in delivering content, providing effective feedback, and promoting active learning strategies positively impacted student study skills. This suggests that competent instructors play a crucial role in fostering the development of effective study skills among students.

Similarly, a study by Lowell and Ashby investigated the relationship between reviewer competencies and student study skills in an online learning environment. The study found that reviewers who exhibited strong competencies in organizing and presenting content, facilitating interactive discussions, and providing constructive feedback had a significant impact on student study skills. This highlights the importance of competent reviewers in promoting the development of effective study skills among online learners.

Furthermore, a meta-analysis conducted by Wisniewski et al. (2020) examined the overall impact of instructor competencies on student learning outcomes. The analysis revealed a positive correlation between instructor competencies and student study skills, indicating that competent instructors contribute to the development of effective study habits and strategies among students.

Taken together, these studies support the notion that the competencies of reviewers or instructors have a significant impact on the study skills of the examinees or students. Competent reviewers who possess strong knowledge of the subject matter, deliver content effectively, provide meaningful assessments, and promote active learning strategies can greatly enhance the development of effective study skills among the examinees.

## Discussion

In line with the respondents' perception regarding the competencies of the reviewers, the following discussions were highlighted:

The overall results indicated that the reviewer's competency level, as perceived by the respondents, is rated as highly competent. This suggests that, on average, the reviewers are perceived to possess a high

level of competency in their knowledge of the subject matter, delivery of content, and assessment activities. Overall, the respondents agree that the reviewers demonstrate competence in these areas.

In addition, it could be said that the reviewers are generally perceived as highly competent in their knowledge of the subject matter, delivery of content, and assessment activities. This indicated that the reviewers were effective in their roles and contributed positively to the examinees' learning experience. The high mean scores suggest that the reviewers are meeting the respondents' expectations regarding their competency. However, it is important to note some variability in the respondents' perceptions of the reviewers' competency. Further investigation may be needed to understand the factors contributing to this variability and to identify potential areas for improvement to enhance the overall effectiveness and impact of the reviewers' contributions.

Furthermore, there are noticeable areas that can be improved, like the quality of input and the delivery of discussion if there is an online review session or coaching. The use of technology and ICT incorporating its advantage to review classes must be taken into consideration, such as the use of powerpoint presentations as the primary visual aid in the delivery of the content and in the field of making assessment activities during review sessions or any coaching activity.

Lastly, it is important to note that among the three competencies enumerated – Knowledge of Subject Matter, Delivery of Content, Assessment Activity – the 1<sup>st</sup> variable needs to be considered in giving improvements. Hence, this should be improved since while it shows high competency but it is the least among the variables enumerated. This could be attributed to the fact that not all review lecturers master or follow the Table of Specifications, which serves as the bible for a given subject/course they are discussing during review sessions. This must be reiterated among the reviewers who handle the review program.

In line with respondents' perception regarding their study skills, the following discussions were deduced as follows:

The data revealed that respondents had demonstrated a range of study skills, with varying levels of proficiency in different areas. In terms of time management and procrastination, the respondents show a good level of competency in managing their time effectively and avoiding procrastination. This indicates that they can prioritize tasks, set goals, and allocate their time efficiently, which is crucial for staying organized and meeting deadlines.

In the area of concentration and memory, the respondents exhibit a good level of study skills. This suggests that they can maintain focus during study sessions and retain information effectively. Strong concentration skills enable them to minimize distractions and fully engage with the material, while good memory skills aid in recalling and applying learned concepts.

When it comes to study aids and note-taking, the respondents excel in utilizing study aids and employing effective note-taking techniques. This indicates that they are proficient in leveraging resources such as textbooks, online materials, and supplementary resources to enhance their understanding and retention of information. Additionally, their adeptness in note-taking enables them to capture key points, organize information, and create valuable study materials.

In terms of test strategies and test anxiety, the respondents possess excellent study skills. This suggests that they have effective approaches to preparing for exams, such as creating study plans, practicing sample questions, and employing strategies like time management and self-assessment. Furthermore, their ability to manage test anxiety indicates that they can cope with stress and perform optimally during exams.

Furthermore, the respondents demonstrate exceptional study skills in organizing and processing information. This implies that they excel in structuring and categorizing information, making connections between concepts, and critically analyzing and synthesizing information. These skills are vital for comprehending complex topics, integrating Knowledge, and developing a deep understanding of the subject matter.

However, there are also areas that need to be improved, such as helping examinees improve their study routine and learn to stick to their review activity. Examinees also have a hard time finding a good study area and paying their undivided attention during online discussions. They need to improve their skills in taking down notes in any review activity and develop a better system of highlighting important details. Moreover, examinees are having difficulty managing their tasks and need to improve their organization in understanding any reading material they have.

Overall, the respondents demonstrated a commendable level of study skills across various areas. Their proficiency in time management, concentration, study aids and note-taking, test strategies, and organizing and processing information equips them with the necessary tools to succeed academically and maximize their learning potential. However, it is very important to note that concentration and memory were the lowest among the variables considered in this study. This means that this variable should be checked and reviewed among the study skills enumerated as examinees show weakness in this area among the other variables. This clearly manifests that this could be attributed to the influence of various social media platforms and digital devices, primarily mobile phones, which easily distract examinees' attention and disturb their overall concentration in relation to their preparation for the licensure examination.

In line with the significant relationship between the criminology reviewer's competencies and examinees' study skills, the following brief discussion is as follows:

The results indicated that the competencies of the Criminology reviewers have a significant impact on the study skills of the examinees. When the reviewers demonstrate higher levels of competency, the examinees tend to exhibit stronger study skills. This highlights the importance of having competent reviewers who can effectively facilitate the development of effective study skills among the examinees. Specifically, the study skills of the examinees are positively influenced by the reviewers' competency in various areas. The reviewers' knowledge of the subject matter is positively correlated with the examinees' study skills, suggesting that a strong understanding of the subject matter by the reviewers contributes to better study skills in terms of time management and procrastination.

In addition, the delivery of content by the reviewers also plays a significant role in the study skills of the examinees. When the reviewers effectively deliver the content, the examinees tend to have better study skills in terms of concentration and memory. This indicates that the way the information is presented and communicated by the reviewers impacts the examinees' ability to focus and retain information.

Moreover, the reviewers' competency in assessment activities is positively related to the study skills of the examinees. This suggests that when the reviewers demonstrate competence in assessing the examinees understanding and progress, the examinees tend to have better study skills in terms of utilizing study aids and note-taking.

Indeed, time management and procrastination also influence the study skills of the examinees. When the examinees exhibit good time management skills and avoid procrastination, they tend to have better study skills in terms of test strategies and test anxiety.



Lastly, the area of concentration and memory positively impact the study skills of the examinees. When the examinees demonstrate strong concentration and memory skills, they tend to have better study skills in terms of organizing and processing information.

### Conclusions

Based on the result of the study, the following conclusions were drawn:

Examinee's study skills are directly influenced by the reviewer's competencies, which means that the more competent the reviewers are, the more it enhances most of the study skills of the examinees. It was found that reviewers highlighted the importance and the value of creating different assessment activities to evaluate the preparedness of the examinees during the entire review program. On the other hand, examinees tend to develop study skills in organizing and processing information as they progress and continuously attend the different review sessions.

### Recommendations

Based on the findings formulated from this study, the following recommendations were given:

1. Reviewers need to expand their knowledge regarding the content to better enhance and prepare the examinees for the licensure examination. The content of the existing Table of Specifications duly approved and released by the Professional Regulatory Board of Criminology must be religiously discussed and followed. Should the review be conducted online, the reviewers must consider enhancing their skills in ICT to deliver the same quality of input done during the face-to-face review.
2. Examinees should consider various intervention strategies that will help them increase their level of concentration and memory recall to avoid external distractions, such as finding a well-ventilated and well-lighted study area. Find also some tips on how to deal with the distractions brought by using digital devices, particularly mobile phones, during review preparations.
3. Reviewers should retrain and retool themselves as to how they can connect with the reviewees / examinees during discussions and make a good presentation in any review activity that will aid them in delivering the content well, especially during online discussions. If feasible, minimize delivering content thru online as it will not help the examinees that much but rather clouds their concentration and focus during the online review session since the interactions limit to the virtual space only.

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