

Perceived Readiness of Third Year Far Eastern University Medical Technology Students on Internship

April Fralyn L. Agad¹, Kristine A. Cerenado², Emilia Gwennete P. Esporlas³, Jan Deryck M. Hernandez⁴, Wendel M. Quarteros⁵, Zil Jian B. Viola⁶ Far Eastern University, Manila, Philippines Email address: 2023029081@feu.edu.ph

Abstract—Clinical internship is a crucial component of the Medical Technology course, effective training is crucial for preparing students in the medical field, especially those studying medical technology. This study explored the perceptions of third-year Medical Technology students at Far Eastern University regarding their preparedness for clinical internship. Thus, the students' experiences and challenges along with areas of improvement to identify their perceived readiness. A qualitative research study that aims to identify the perceived readiness of third-year medical technology students in FEU through a semi-structured interview was utilized in this study. The results implies that Medical Technology students are motivated, self-aware, and eager to meet professional standards. However, their perceived readiness is hampered by structural limitations in current academic delivery. This study suggests that while third-year Medical Technology students at Far Eastern University have a strong theoretical foundation, they could benefit from more focus on practical training and mentorship.

Keywords—Medical Technology students; Internship; Thematic analysis, Clinical education; Far Eastern University.

I. INTRODUCTION

Effective training is essential in preparing students in medical field including Medical Technology students as it helps them transition from theoretical knowledge to real-world clinical practice. Accuracy in diagnostic procedures is critical in healthcare, proper training ensures they develop the necessary technical skills. Studies show that structured training programs help students feel more prepared and reduce anxiety, making them a crucial part of internship readiness (Nasir et al., 2018). Different universities offer varying training programs that prepare Medical Technology students for clinical practice, equipping them with the technical skills and professional values. In line with this, Centro Escolar University - Manila offers hands-on laboratory training in key areas such as chemistry, clinical microbiology, hematology, and immunology. National University Manila seeks internship agreements with institutions, such as Mary Johnston Hospital, to increase the clinical exposure of the students in their Nursing and Medical Technology Programs to facilitate learning in a clinical or health setting and develop strategies to bridge academic learning with practice.

The four year undergraduate program, Bachelor of Science in Medical Technology (BSMT) equips students for careers in healthcare by giving them the knowledge and skills they need.

The program was established in 2008, which combines classroom learning with hands-on laboratory training to help students become knowledgeable about scientific research and the newest technological developments in medicine. Medical technology courses provide learners with both foundational concepts and hands-on abilities. However, Murray (2013) emphasizes that students often feel unprepared leading to low confidence and difficulty in skill acquisition. Assessing the readiness of third year FEU Medical Technology students is essential in identifying skill gaps and areas for learning experience. In relation to this, Pearlman et al. (2019) highlighted self-evaluation in moving to clinical practice, with discrepancies in important areas such as patient management despite student optimism. Evaluation of third-year FEU Medical Technology students' perceived readiness can also determine levels of confidence and areas for learning experience to facilitate their transition.

Laboratory training is crucial for Medical Technology students, developing their technical skills, accuracy, and confidence for clinical practice. Hands-on exercises familiarize them with real-world procedures, and research suggests that strong laboratory performance correlates with internship success (Quinto, 2019). Nonetheless, just having technical compétence may not guarantee a seamless transition to clinical practice. It is also crucial for students' internship preparation, as mentorship reduces stress and enhances students' preparedness. Jordan et al. (2019) found that guidance from professors in laboratory and hands-on training can reinforce technical skills and boost confidence. In addition, the study Detgen et al. (2021) emphasized the importance of training, mentorship, and experiential learning in professional preparedness. Drawing on this, the research delves into how theoretical education and practice exposure boost students' confidence and competence, informing improvements in internship programs to fill skill gaps.

1.1. Statement of the Problem

The research seeks to determine how prepared third-year medical technology students at FEU feel. Thus, the students' experiences and challenges along with areas of improvement to identify their perceived readiness. The study aims to answer the following questions:

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1. How does 3rd year Medical Technology students perceived their level of readiness in their internship in the following areas.

- 1.1 Interpersonal Skills
- 1.2 Task Management
- 1.3 Technical Skills

2. What are the experiences and challenges that 3rd year Medical Technology students which affects their perceived readiness in terms of:

- 2.1Classroom learning
- 2.2 Laboratory exercises
- 2.3 Hands-on training

3. What are the areas of improvement to enhance 3rd year Medical Technology students perceived readiness in terms of:

- 3.1 Classroom learning
- 3.2 Laboratory exercises
- 3.3 Hands-on training

1.2. Scope and limitations

This research assesses perceived readiness of third-year Far Eastern University Medical Technology students through their preparation, specifically on interpersonal, internship responsibility handling, and technical skill. It investigates experiences, academically related issues, laboratory activities, and application in practice to establish a knowledge gap between concepts they learned and actual use. The research aims to establish what needs improvement to increase student competence and confidence before the internship, and with that, a proposal for curricular improvement is suggested. Its target is limited to Regular FEU third-year students of the Medical Technology program during the 2024-2025 academic year and excludes the faculty, internship coordinators, and students of the other year levels and other schools. These students are covered by the 2021 curriculum, which introduced an outcomebased and skill-focused approach aimed at enhancing clinical and professional readiness.

1.3. Significance

This study examines Far Eastern University third-year medical technology students' perceptions on their preparedness for clinical internships. The findings of this study have several key implications for stakeholders within the academic and healthcare sectors.

For Medical Technology Students: The results will provide students with a thorough knowledge of their present level of readiness. This understanding can help them focus their academic efforts and personal growth in order to be more prepared to the rigors of clinical practice.

For Faculty and Academic Program Coordinators: The study provides implications for identification of gaps in the curriculum, which can help in improving Teaching strategies and establishment of practical skills. This will help utilize more effective practices for instruction and make the students more prepared.

For University Administrators: The results can be used as a strategic tool to facilitate optimal utilisation of resources available for student internship and clinical placements. Administrators can remedy the gaps identified in the survey to

make sure students are well-prepared for the rigors of their internships and that students will not compromise the academic integrity of the university.

For Healthcare Institutions: Healthcare providers will gain from a more profound comprehension of the preparedness levels of interns from FEU. This will help to ensure better tailored mentorship and clinical placements for the students and optimize the internship experience for both students and healthcare professionals.

For Future Researchers: This study will help inform future research about internship preparedness and can be used as the basis for examining other factors that may impact students' preparedness for clinical practice.

II. MATERIALS AND METHODS

2.1 Research design

The study is a qualitative research study that aims to identify the perceived readiness of third-year medical technology students in FEU. A semi-structured interview was utilized in this study. This approach fits a qualitative study in order for the participants to answer with their personal insights. Open-ended questions allow participants to express their thoughts and experiences freely, without limiting response options. This approach results in a more thorough data collection process and enhances understanding of the topic. The interview was held online through Microsoft Teams. The participants were called individually and the prepared questions were asked and the interviewer.

This technique also ensures an in-depth understanding and exploration of how third-year Medical Technology students define readiness in terms of being an about-to-be intern, it also focuses on enhancing the reliability of the study as the researchers compare data from different participants. In addition, this will highlight the complexity of readiness as a concept, and how an individual personally defines being prepared for an internship.

2.2 Respondents

Third-year Medical Technology students at Far Eastern University were invited to an online interview. Only regular students from academic year 2024-2025 were eligible as a participant in the student. All participants were provided informed consent before the start of the interview.

2.3 Sampling Method

A purposive sampling method was utilized in the study to select Third-year Medical Technology regular students at Far Eastern University from academic year 2024-2025 (Belle, 2022). This method ensures that the selected students with relevant insights and internship readiness were included in the study.

2.3.1 Sample size

A sample size of three students was interviewed for the study. The small focused sample size is adequate for a qualitative research design to provide in-depth insights into their perceived readiness and personal experience over a generalized response (Creswell & Poth, 2018). According to Brownstone et al. (2021) a small sample size in qualitative



research is adequate to provide the necessary insights and perceptions of the participants to provide the necessary data for the research study.

2.4 Research Instruments

The researchers used a self-made set of questions for the questionnaire, this essential tool will help gather, collect, analyze, and interpret data from participants. These tools will be applied throughout their interactions with participants and the investigation of the study.

2.4.1 Questionnaire

The researchers created a self-made questionnaire to collect data that is relevant to the perceived readiness of Third-year Medical Technology regular students at Far Eastern University from academic year 2024-2025. This questionnaire were structured into sections, focusing on the key topics of the research. To ensure its validity and reliability, the questionnaire went through a review process by peers. Once finalized, it will be administered through an interview, allowing participants to provide their responses.

2.4.2 Microsoft Teams

Microsoft Teams was utilized as a primary platform for gathering data and facilitating communication throughout the study. The platform was conducted online through this platform. Microsoft Teams provided a secure sessions to enhance the communication. Thus, its user-friendly design promoted a smooth interaction between researchers and participants, helping to efficiently carry out the study.

2.5 Data Analysis

The data will be analyzed using thematic analysis as it is often used in interviews with open ended questions. The

common theme shared among the participants response will be grouped together to identify and analyze patterns among their perceived perceptions ("Risk Analysis and Risk Perception among Malaysian Caregivers: A Qualitative Study," 2022).

III. RESULTS AND DISCUSSION

The data gathered was collected through semi-structured interviews with three regular 3rd-year Medical Technology students from FEU using purposive sampling. A thematic analysis was used to identify the key themes in the research. *3.1 Themes Results and Discussion*

3.1.1 Third-year Medical Technology students assess their perceived readiness for internships in terms of interpersonal skills.

Theme 1: Confidence in performing laboratory techniques and procedures.

This theme emphasizes how crucial early, regular, and intensive hands-on experiences are in helping third-year medical technology students build their confidence as they get ready for clinical internships. Most respondents were more confident about techniques within the laboratory, especially after frequent practice by hand. There was also a general awareness that confidence did not apply to all techniques. Training our clinical lab overtime demonstrates improvement in confidence levels when it comes to practical activities postindicating the effectiveness of hands-on training, practice(Abualhayja'a et al., 2017). Many felt comfortable manipulating simple procedures but admitted they were unsure when they were faced with more complex or finer techniques. It's evident that mastery unfolded gradually, experimentation and error, and not all at once.

Significant Statement	Initial theme coding	Core theme
Participant 1:	Confidence based on	Confidence develops over time
"If we had no guidance, I would say na hindias much as it's hard para mag-base with the	instructor guidance	with experience, and practical
procedures from the book onlywhat our professors have helped us with feeds into our		guided instruction
confidenceand we still manage to execute yung mga experiments.		
Participant 2:	Confidence mid humility	
"I'm confident toobutnot so much confidentI am being constantly questioningbut	and feedback	
willing to do and confidentbut also allow for spaceto improve"		
Participant 3:	Evolving confidence	
"I think I'm confidentI was not confident when I was second yearit was really just	based on infrequent	
experiencebutthere are the experimentsnot practiced in a regular settingthat we are	regular practice	
splittingbecause that means I am not that confident yet		

3.1.2 Third-year Medical Technology students evaluate their readiness for internships based on their ability to manage tasks effectively.

Theme 2: Confidence in communication in a professional environment.

This theme highlights how students gradually develop professional communication skills through classroom simulations and peer collaboration. While some students expressed confidence in interacting with colleagues and instructors, they shared apprehension about formal communication in clinical environments, particularly with patients and senior healthcare staff. One participant recounted their experience practicing proper patient identification during phlebotomy activities, which helped reduce anxiety. "Phlebotomy training namin... proper patient identification... napapractice namin siya sa practicals. Sa simulations, na-aapply naman namin." Another participant highlighted the importance of asking questions in wor setting "Hindi ako nahihiya magtanong... confident naman din ako kasi nga napapractice ko din siya here. Teamwork din talaga, kailangan ng communication." However, one participant opened his fear when it comes to patient interaction making it one of his weaknesses "Confident ako with co-medtechs... pero di ko pa masabi na confident na ako when talking to patients... need ko pa siya i-practice."

It shows that while simulated exercises help develop communicative confidence, direct clinical exposure is crucial for refining professional interactions. Communication in the



workplace was another area where learners felt they had conflicting opinions. While one section was comfortable discussing technicalities with colleagues or trainers, the rest of the students were concerned how they would come across to managers or in official meetings. Mastery of communication skills, including verbal and nonverbal cues, is vital for influencing others and enhancing workplace relationships (Lawson et al., 2019). There was a genuine sense that professional communication involved not only knowledge but presenting that knowledge clearly and respecting their words while being under time pressure.

Significant Statement	Initial theme coding	Core theme
Participant 1:	Classroom-based simulations and	Communicative confidence develops through
"Patients, hindi ko masasabing immersed kami. But instructors and	training as preparation for actual	classroom-based simulations and willingness
colleagues. phlebotomy binatraining namin sa. proper patient identification.	communication	to learn; actual experience is limited but
we practice it sa practicals namin. I think yung mga simulations. we do apply		expected
naman siya when we interned."		
Participant 2:	Confident and curious	
"Hindi ako nahihiya magtanong. when it comes to professional work na with	communicator; values teamwork	
patients and colleagues. confident naman din ako. kasi nga napapractice ko		
din siya here. open nga ako na magkuhan ng dugo. teamwork. kailangan ng		
communication."		
Participant 3:		
"I am somewhat confident with my co-medtechs. I cannot say na confident	Uncertainty in the real-world	
na ako when talking to patients. need ko pa siya i-practice. there are some	patient interaction, boundaries of	
patients who insist on asking the things that we cannot answer.	medtech communication	

3.1.3 Third-year Medical Technology students gauge their level of technical skill preparedness for internships.

Theme 3: Anticipated Difficulties in teamwork and collaboration during internship.

This theme reveals students' anticipation of challenges when adapting to new teams and unfamiliar clinical environments during internship. Participants expressed both apprehension and optimism about collaborating with interns from other schools and working with different healthcare staff. One student shared how they view it as a challenge that is part of their journey "I don't see it as difficult, I see it as challenging... bagong faces, bagong tao... I will be making changes to meet new people." . Meanwhile another noted the difference of clinical environments and academic settings, which requires mental adjustments "It's a challenge for me... real hospital experience... it's not like school... big adjustment talaga." It shows that this theme highlights the imprtance of teamwork as part of their professional growth.

When teamwork was mentioned, there were several who expressed their concerns regarding the unpredictability of team interactions. Their conflicting work ethic, communications styles, and even conflicts between themselves were cited as potential obstacles. There were also positives. Collaboration in work environments can be difficult due to unpredictable interactions arising from differing work ethics, communication styles, and interpersonal conflicts, which can impede team performance (Wolfe et al., 2016) There were many who understood that learning the effective methods to break down these barriers was all part of the professional development they were pursuing from their internship.

Significant Statement	Initial theme coding	Core theme
Participant 1:	Adapting to new people	Adjustment to an unfamiliar
"I don't see it as difficult, I see it as challenging new faces, new people there was some uncertainty	and dynamics	environment and people
with who we are working with with our FEU interns, also with other schools we are going to be		affects teamwork
meeting some other people like senior staff at the hospital I will be making changes to meet new		
people"		
Participant 2	Moving from the	
"I do think that the environment of the hospital where we are being assigned, it's a challenge for me	academic to the clinical	
personally too real hospital experience it's not the school setting big adjustment "	environment	
Participant 3:		
"It is possible that we could be placed with interns from other schools and new equipment - not all	Unfamiliarity with	
equipment available at FEU it is a big adjustment for me"	hospital relationships and	
Unfamiliarity with hospital relationships and equipment	equipment	

3.1.4 The experiences and challenges encountered in classroom learning influence how ready third-year Medical Technology students feel for their internships.

Theme 4: Perceived sufficiency of classroom lectures for internship readiness.

This theme illustrates how students value the information they gain through classroom lectures for providing strong theoretical knowledge. While textbook knowledge is important all participants emphasized the need for practical learning experiences to apply their lectures. One participant expressed appreciation for the lectures but pointed out the excessive amount of information and insufficient time for more in-depth practical involvement. "Pagdating sa lab, enough naman... pero lectures, information overload... kulang ng time.". This theme aligns with Henderson & Trotta, (2016) that active learning strategies, such as simulations, have been shown to enhance student engagement and critical thinking, effectively linking theory to practice. Overall, there was the general sense that lectures in the classroom presented a good theoretical foundation but lacked adequate preparation for realistic



operations. Students appreciated what they were taught but also craved more application-related teaching—most importantly, simulations and case studies that mirrored the kind of challenges they would experience in an actual laboratory.

Significant Statement	Initial theme coding	Core theme
Participant 1: "Pagdating sa laboratory component. I think enough naman siya. Pero pagdating sa lecture. information overload yung information. doon kami parang kulang ng time. hindi ko rin kaya mabiblame kasi marami talagang info."	sufficient laboratory training but lectures are too overwhelming	Foundational knowledge is provided by classroom lectures, but hands-on application is needed in order to really understand concepts
Participant 2: "Blessed to have professors. they know what they're teaching. they can segue to practical. sufficient naman sila. but iba talaga pag nasa internship ka na. mas ma- conceptualize mo siya."	Classroom knowledge is useful but internship gives a deeper grasp	
Participant 3: "Lectures. good foundation. overview lang. but hindi stand-alone. I can't learn with those lectures alone. need ko talaga ng experience."	Lectures are helpful but experience or experiential learning is needed	

3.1.5 The challenges faced during laboratory exercises play a significant role in shaping third-year Medical Technology students' perceived readiness.

Theme 5: Describing the collective experiences in laboratory or academic settings.

This theme underscores how lab exercises serve as both skill-building opportunities and teamwork exercises. Students highlighted that both successes and struggles within lab activities are necessary for resilience and collaborative problem-solving. One participant cited how their research taught them to work under preassure "Case study reporting... experiments... may mga group works kami... kahit may shortages... natututo kami mag-adjust." Meanwhile, another participant reflected on the necessity of collaboration in academic and laboratory tasks "Sa lectures at labs... laging may group work... mixed experience pero collaboration talaga kailangan." This confirms the role of collective experiences in building professional habits, echoing Detgen et al. (2021) on the value of experiential collaboration in healthcare education.

Collective experience within the laboratory settings was both a crucible of learning and a proving ground for resilience. Most recalled the stress of deadlines, the frustration of repeatedly failed experiments, and the triumph of small victories. Such experiences foster crucial technical skills, collaboration, and problem-solving abilities, while underscoring the importance of perseverance through challenges for personal and academic development. (Heller et al., 2020). Ultimately, these collective experiences underscore the importance of resilience in educational settings, particularly in the face of adversity (Vásquez-Erazo, 2023)

Significant Statement	Initial theme coding	Core theme
Participant 1:	Collaboration develops skill-	Collaboration Promotes
"For example case study reporting prepare kami ng presentation to defend Also, how it	level and teamwork in both	Capability Enhancement and
pertains to experiment naman, in-immersed din kami through experiments as opposed to	academic and lab settings	teamwork in academics and
assessed through practical examinations our advisors naman na kasama namin to do our		lab setting
research " being a part of disengaged academic group work and our guided research		
Participant 2:	The necessity of collaboration	
"Schedule there is always some activities that require collaboration, in lectures and	when working out academic and	
laboratories it can obviously more than anything, we have always done group works it is	laboratory tasks	
always mixed experience, but that part of collaboration is necessary to deal with different		
kinds of people with different approaches"		
Participant 3:	Practical experience for working	
"We often work in groups when we do experiments e.g> blood banking have group	in labs, and there are legitimate	
works sounds that we join together with shortages and in reagents main factors for that	reasons for working together in	
is"	labs	

3.1.6 Hands-on training experiences and associated challenges directly impact the perceived internship readiness of third-year Medical Technology students.

Theme 6: Describing Uncertainty in particular laboratory skills.

This theme reflects students anxiety in complex laboratory activities. Students reported that difficult laboratory skills gives them a lack of confidence in techniques requiring precision, such as molecular diagnostics and automated machines, primarily due to limited exposure Some technical procedures elicited more anxiety than others. Those that required a high degree of precision, for example, pipetting small volumes or working with dangerous materials, were among the more frequent sources of uncertainty. Participants felt anxious about making an error that would invalidate experiments or even create safety issues, and more practice opportunities are thus warranted for these types of procedures in low-stakes settings. One participant admitted anxiety about working with unfamiliar equipment. "Laboratory skill na kinakabahan ako... operating computerized machines... madalas kasi manual work kami." Another highlighted the importance of emotional readiness in facing unfamiliar procedures. "May doubt pa rin... pero I'm still going to try... gusto ko talaga ito.". This theme supports Porter & Speed (2023). in emphasizing that limited hands-on exposure to sensitive procedures contributes to students' technical insecurities.



Significant Statement	Initial theme coding	Core theme
Participant 1:	Restricted exposure to	Uncertainty relying on restricted exposure
"Well, I suppose something that I might say is. the laboratory skill I am a little nervous.	laboratory automated	and available practice particularly with
operating computerized machines. it is actually manual work which we do on most	equipment in "cautious"	sophisticated or low-practice methods
occasions. universities did have some computerized equipment that we cannot fully		
soak it in to."		
Participant 2:	Mental and emotional	
"There is still that place of uncertainty. still although sometimes there still is doubt or	readiness despite	
fear, I am still going to try. I really do want to get into this line of work that I am	uncertainty	
working really hard trying to, hope in my endeavor of I can succeed.		
Participant 3:	Inconsistent hands-on	
"Some of those experiments and technical skills. No, not at all. we might have done it	practice and shared task	
one or two times. but we don't do it in any regular set. we are always sharing the task,	experiences	
so it's not everyone even getting to it."	_	

Theme 7: Preference on teaching approach in terms of preparing participants for internship

This theme illustrates students' strong preference for applied, interactive teaching strategies over traditional lectures. Participants favored demonstrations, real-case discussions, and student-centered interactionsParticipants showed a clear preference for hands-on learning. They gravitated toward workshops, simulations, and real-world case studies rather than traditional lectures, feeling that actually "learning by doing" helped them better absorb information and gave them the confidence they needed for their internships. One participant valued visual and verbal clarity, with interactive and conceptual teaching styles "Visual learner ako... gusto ko i-explain yung principle, hindi lang binabasa.". Another emphasized the importance of demonstration and supplementary materials "Dapat may demonstration... importante din yung professor na passionate sa tinuturo niya." (Participant 2, personal communication, 12 March 2025). This preference aligns with Ansari (2024) research further supports the importance of internships and experiential learning in developing real-world skills, underscoring the role of practical experiences in fostering professional success.

Significant Statement	Initial theme coding	Core theme
Participant 1:	 Visual and verbal clarity 	Engaging, clear, and applied teaching
- "Visual learner kasi ako mahalaga sa akin na maayos siguro yung	- Active engagement	approaches enhance student
PowerPoint."	Conceptual understanding	understanding and learning
- "Mas gusto ko yung in-explain sa akin hindi yung binabasa lang yung		effectiveness.
PowerPoint."		
- "Mahalaga sa akin is yung i-explain sa akin yung principle, yung mga		
fundamentals nung concept."		
- "Important din sa akin yung professor nag-a-ask sa students."		
- "Kung may active recall o engaging yung professor mas natututunan ko."		
Participant 2:	- Demonstration-based	
- "Dapat mayroong demonstration from them pinapakita naman din nila."	learning	
- "They would send some supplementary materials"	 Supplementary support 	
"Makita lang na passionate ka you know what you're teaching."	Teacher passion and clarity	
"Hindi lang more on theoretical madaling maintindihan ng mga estudyante."		
Participant 3:	 Interactive methods 	
- "Interactive talaga for me na teaching style ang effective."	 Hands-on learning 	
- "Hands-on experience talaga lahat makatry."	Real-world application	
"Important yung interaction with students."		
- "Discussion on real-life cases."		
- "A professor that could truly share the principle with the concepts"		

3.1.8 Enhancements in laboratory exercise methodologies are identified as key to boosting the readiness of third-year Medical Technology students.

Theme 8: Specific laboratory techniques that need more handson practice.

This theme illustrates the importance of specific techniques in identifying areas where students believe additional hands-on practice is necessary particularly in Hematology, Microbiology, and Molecular Biology. In organizational contexts, understanding internal capabilities through technology development strategies enhances competitive advantage and effective implementation of initiatives (Zandhessami et al., 2015). One participant prioritized common routine lab tests as requiring mastery. "Pinaka-importante... HEMA section, Microbio section... yun madalas na-request sa patients.". Another student emphasized that all techniques deserve equal attention. "Hindi ko masabi na isang technique lang... lahat importante." Techniques that involved operating complex machinery, making precise measurements, or following multi-step protocols were often flagged as areas where they needed more practice. Skills like chromatography, PCR, and sterile technique work stood out as tasks where extra supervised practice would make a real difference.



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Significant Statement	Initial theme coding	Core theme
Participant 1:	Emphasis on foundational and	Balanced and immersive training
- "Specific lab techniques, siguro, for me, ang pinaka-important talaga is lahat ng mga	commonly used lab	across essential, sensitive, and
tests na ginagawa for HEMA section and for microbio section."	techniques	advanced laboratory techniques to
- "Kasi for HEMA platelet counts, RBC, WBC counts, platelet estimates yun yung		ensure competency and
mga parang usual tests na nire-request sa isang patient."		preparedness.
- "Sa microbiome usually doon naman kinukuha yung urinalysis, fecalysis, na very		
common din na test na kinukuha sa patients."		
Participant 2:	Equal importance and	
- "Every time kami mag-laboratory activity, hindi ko talaga na-feel na binabasta-basta	thorough execution of lab	
na lang nila yung activity."	techniques	
- "They always emphasize ano yung dapat gawin, ano yung dapat i-expect nyo."		
- "Even to the minute detail of it, they would explain the principle."		
- "I wouldn't say na isang technique, dapat mas prepare siya ng greater emphasis lahat		
naman sila importante in my own opinion."		
Participant 3:	Sensitivity and necessity for	
- "Konting mali mo lang affected na talaga yung results molbio sa pinakasensitive na	hands-on experience in	
sa lab."	molecular biology techniques	
- "Need talaga ng PPE bawal man lang may nakasilip na buhok mo."		
- "More practice molecular biolab techniques."		
- "Bago lang yung mga equipment we're lucky enough to have experienced some of		
those experiments."		
- "Kulang din yung iba eh need siya bigyan more emphasis or hands-on practice."		

3.1.9 Improvements in hands-on training practices are essential to further increase the perceived readiness of thirdyear Medical Technology students for their internships.

Theme 9: Practical experiences that the participants think would increase their confidence for internship.

This theme highlights students' shared desire for earlier, immersive clinical experiences prior to formal internship. Participants believed early exposure would help reduce anxiety, improve practical skills, and foster confidence. Participants also emphasized how crucial real-world lab exposure was for their growth—whether it was shadowing professionals, contributing to long-term projects, or working with actual case samples. They felt that these experiences would not only sharpen their technical skills but also stretch their decision-making, problemsolving, and adaptability under real-world conditions. One participant expressed that clinical confidence builds through real-patient interactions. "If mabibigyan kami ng chance with real-life patients... mas tataas confidence ko." Another valued repetitive practice as a way to normalize clinical work "Pag paulit-ulit mong ginagawa... parang naging lifestyle mo na siya... doon ka nagiging confident.". This theme aligns with Tayade & Latti (2021) wherein Early Clinical Exposure (ECE) is increasingly recognized as a vital component of medical education, significantly enhancing students' confidence, practical skills, and decision-making abilities. Studies show that ECE enables students to engage with actual patients early in their education, which helps reduce anxiety and promotes a more profound comprehension of clinical practices and patient care.

Significant Statement	Initial theme coding	Core theme
Participant 1:	Need for early exposure to	Confidence in clinical practice is
- "If mabibigyan kami ng chance to showcase our skills with real-life patients."	real-life patient interaction	developed through early, repeated,
- "Yun nga yung lacking sa amin."		and immersive real-world exposure
- "Sa 4th year lang talaga kami na-e-immerse doon."		supported by both structured
- "Kapag nabigyan kami ng experience mas tataas yung confidence ko."		experiences and peer learning.
Participant 2:	Repetitive hands-on experience	
- "I would be more willing na mag-learn pa talaga when it comes to phlebotomy."	strengthens confidence and	
- "Minsan twice is enough already para masabi let's move on but I'm more than	learning	
willing na mag-experience more."		
- "Hanggang parang naging lifestyle mo na siya kaya naging confident ka na kasi		
paulit-ulit mo siyang ginagawa."		
Participant 3:	Lack of early exposure causes	
- "Binibuild ko na kasi talaga yung confidence ko sa upcoming internship."	anxiety, peer learning helps	
- "Natatakot akong sumabak sa hospital setting."	prepare	
- "Humihingi na rin ako ng tips wala rin naman tayong pre-exposure sa hospitals."		
- "By switching roles I think I can increase my confidence sa internship."		

3.2 Cross-theme observations and Data analysis

The qualitative analysis of the three transcripts shows several shared challenges and themes the medical technology students had in preparing for their clinical internship. A primary concern for all participants was the move from theoretical knowledge to real-life clinical practice. Students expressed confidence in the basic laboratory techniques, where they have an area of focus, such as phlebotomy. The participants reported a level of uncertainty with more complex procedures, especially as they related to molecular diagnostics. The common theme of a divide between the classroom and actual practice within a hospital was evident, as the students did have an awareness of the limits of theory-based teaching. They also recognized the difficulty of applying theoretical protocols in the diverse



environment, containing various hospital types, that comprised the hospital-based learning environment. Additional areas of uncertainty and adjustment stemmed from the unfamiliar hospital environment, new intern groups, and differing equipment.

A popular recommendation for bolstering internship preparation is more exposure to the real clinical setting and hands-on experience before starting the internship. Many participants commented that the absence of any practical, active experiences in the classroom was a considerable hurdle. One student noted that exposure and experience before the internship timeframe are important for all students to be familiar with the lab environment and all associated machinery. apparatus, reagents, and methods of communication with the patient. More simulation-based learning was desired, and more troubleshooting situations were discussed, alongside indications of wanting degraded learning opportunities to practice over and over for building their confidence with basic and advanced techniques like molecular diagnostics.

When discussing interpersonal readiness, students expressed developing confidence in communication and teamwork, particularly within academic settings. Team-based lab activities and class simulations were seen as beneficial; however, many still expressed apprehension about interacting with real patients or navigating hierarchical structures in clinical environments. Concerns about task management and adapting to real-world professional expectations also emerged, with students acknowledging the heightened responsibility and pace they will face outside the classroom.

In terms of technical preparedness, students viewed theoretical instruction as foundational but insufficient when not coupled with practical application. Several respondents highlighted the value of demonstrations, case-based learning, and direct mentorship in solidifying their knowledge and skills. However, access to consistent, high-quality practice—especially in complex tasks—was limited. Students reported feeling anxious about their competence due to a lack of time with essential laboratory equipment and inconsistent training opportunities.

Overall, the analysis suggests that Medical Technology students are motivated, self-aware, and eager to meet professional standards. However, their perceived readiness is hampered by structural limitations in current academic delivery. They expressed a strong desire for more immersive, interactive, and experiential learning opportunities, including early exposure to hospital environments, ongoing simulationbased activities, and strong instructor mentorship. These adjustments would help align theoretical learning with clinical expectations and better prepare students to thrive during their internships.

IV. CONCLUSION

Internships are an essential component of the Medical Technology program, because it gives the students the chance to apply what they have learned in classroom and laboratories into practice in a real world clinical setting, this not only helps them develop the necessary skills but also prepares them for the demands of the healthcare field. Therefore, evaluating their perceived readiness is important for maintaining the quality and standards expected in clinical settings.

This study examined how prepared third-year Medical Technology students at Far Eastern University as they approach their clinical internships. The results of the study showed that many students felt confident in performing basic laboratory procedures, but they were uncertain when it came to more advanced procedures, indicating the need for more hands-on practice. Although classroom lectures provided a solid theoretical foundation, it did not fully prepare students for the realities in clinical settings.

When it comes to interpersonal skills, student responses varied. Some felt comfortable when discussing technical concepts, while others were nervous about formal communication with professionals and patients. Teamwork was also seen as both a challenge and a learning opportunity, which shows the need for development in collaboration skills. Laboratory activities helped students gain experience, but many still felt they needed additional practice with certain procedures.

Overall, the study suggests that although third-year Medical Technology students at Far Eastern University possess a strong theoretical foundation, there is a need for greater emphasis on practical training and mentorship. Giving more attention to these areas may help align what they have learned in the classroom and what they will encounter in real world settings, leaving them better prepared for the challenges ahead.

Recommendations

The purpose of the following recommendations is to provide practical ways to enhance the internship readiness of third-year Medical technology students by addressing the areas for improvement based on the findings of the study. From the analysis of survey responses, it is recommended that more hands-on practice with complex laboratory techniques should be incorporated into the curriculum. The data revealed that many students felt uncertain when performing these tasks. By providing additional practice opportunities, students can feel confident which is needed to perform complex techniques accurately during their internships.

The data also showed that students preferred simulations and real-world case studies over listening tol lectures. Many felt that the lack of practical application in the classroom left them unprepared. It is recommended that adding more simulations and case studies into the curriculum to help students develop critical thinking and problem solving skills, which are essential for their internships.

Although students felt confident in their technical skills, they had concerns about communicating professionally, especially when presenting informations. Including more group activities focusing on communication and handling conflicts would help them improve their interpersonal skills.

Lastly, certain laboratory techniques, such as pipetting were identified as one of the sources of anxiety for students. It is recommended that additional supervised practice sessions should be scheduled, particularly for techniques students find challenging, to ensure they feel more competent in executing these skills during their internships.



In summary, These recommendations aim to better prepare third-year Medical Technology students for their internships based on survey responses. While these recommendations could enhance a student's readiness, potential challenges must be carefully considered. Overall, implementing these improvements would better equip students for the demands of their future careers.

Appendix

A. Questionnaire

1. How does 3rd year Medical Technology students perceive their level of readiness in their internship in the following areas: 1.1 Interpersonal Skills

- Which difficulties do you expect regarding teamwork and collaboration throughout your internship? (paraphrase)
- Can you provide examples of times when you collaborated with others in a lab or academic environment?
- 1.2 Admin Work
 - What strategies have you employed that helped you work on administrative tasks easily?
- 1.3 Technical Skills
 - Are you confident in performing laboratory techniques and procedures performed in your laboratory classes?
 - Are there any particular laboratory skills or techniques that you feel uncertain about?
 - What challenges did you face when trying to use your theoretical knowledge in practical lab work?

2. What are the experiences and learnings that 3rd year Medical Technology students gain in terms of:

2.1 Classroom Learning

- How confident are you when it comes to communicating with patients, instructors, and colleagues in a professional environment?
- What subject from your curriculum has any significant learnings in grasping the concepts crucial for the internship?
- Are your classroom lectures sufficient to say that you are equipped for your upcoming internship?
- 2.2 Laboratory Exercises
 - What insights and lessons have you had in laboratory activities?
 - Are your laboratory exercises sufficient for an internship?

2.3 Hands-on Training

- What obstacles have you experienced during hands-on training?
- What experiences helped you move forward in terms of being prepared for an internship?

3. What are the areas of improvement to enhance 3rd year Medical Technology students perceived readiness in terms of: 3.1 Learning in Class

• What subjects would you suggest to be added to your curriculum?

• What teaching approach would enhance your learning to prepare you for the internship ?

3.2 Lab Exercises

- In what ways can lab activities be enhanced to provide better preparation for actual internship?
- Which specific laboratory techniques require greater emphasis or more hands-on practice?

3.3 Practical Training

- Which further practical experiences would increase your confidence regarding the internship?
- How can you say that further clinical exposure or training in a hospital setting is advantageous? For what reason?

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