



## Thesis right research writing boot camp: Link among research skills, attitudes, and anxiety of pre-service teachers

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### ABSTRACT

The purpose of this study is to determine the level of satisfaction of pre-service teachers on the Thesis Right Webinar Research Writing Boot Camp and the link among their research skills, attitudes, and anxiety. This study employed a correlational research design. The respondents of this study are all 136 pre-service teachers enrolled in the CPE108 Research Methods course during the Second Semester of the Academic Year 2021-2022 who were determined through purposive sampling. They answered an adapted survey questionnaire which the data gathered were analyzed using frequency count, percentage rate, weighted mean, Pearson Products-Moment Correlational Coefficient, and Multiple Regression. The results showed that the pre-service teachers have a very high level of satisfaction on the Thesis Right Webinar. Also, pre-service teachers have very high level in terms of perceived research skills, research attitudes, and research anxiety. It is also revealed that there is no significant difference between the mean scores in the pre and post evaluation on their research skills and research attitudes. However, there is a significant difference in the research anxiety and over-all results. The results further revealed that research skills of pre-service teachers significantly influence their research attitudes but not their research anxiety. Whereas, their research attitudes significantly influence their research anxiety. However, there is a significant relationship on the impact in the level of their research skills and attitudes to their anxiety. Hence, the research advisers should promote a human-centered pedagogy. Finally, pre-service teachers are also recommended to join research writing workshops and research-related distressing webinar.

**Keywords:** Level of Satisfaction, Thesis Right Webinar A Research Writing Boot Camp, Research Skills, Research Attitudes, Research Anxiety, Pre-service Teachers, Mindanao State University-General Santos City

## 1. INTRODUCTION

### 1.1. Background of the study

The global outbreak of the coronavirus (COVID-19) has dramatically changed the world after confirmed cases last December 2019. In countries where a public infection has resulted in outbreaks with near rapid expansion, physical distancing measures and movement restrictions have been implemented to slow the spread of the virus. By reducing interactions between people, physical distancing measures and movement limitations frequently referred to as shutdowns and lockdowns can help decrease COVID-19 transmission. However, these actions have a detrimental impact on individuals, communities, and nations by effectively halting social and economic activity (World Health Organization, 2020).

Nearly every educational institution all over the world closes its doors as a result of the COVID-19 pandemic's impact on education. Over 1.5 billion students around the world are affected by it, including over

26 million students in the Philippines (UNESCO, 2021). After almost a year of class suspension, the Commission on Higher Education (CHED) released Memorandum Order No. 04, s. 2020, which states the Guidelines for Implementation of Flexible Learning. The curriculum must be adjusted, teachers must be retrained, and infrastructure must be improved for higher education institutions to shift to a flexible teaching and learning style. To adapt to dynamic, improbable, and changing conditions during times of crisis, these strategic measures must be examined, altered, and improved regularly.

However, this situation becomes even more challenging for college students primarily in conducting their undergraduate research in which those from less advantaged backgrounds suffer (Di Pietro et al., 2020). Undergraduate research has emerged as a prominent approach that can enhance student engagement and strengthen student learning experiences (Kaul et al., 2016). More than that, research is a challenging task for any learner regardless of the level of study but even more so for undergraduate students who do not have any background experience in research (Ifeoma, 2019) as it includes subfields of investigation (Hosier, 2019), analyzing as many relevant sources as possible (Hamilton, 2019), proper referencing and citations to avoid plagiarism (Santini, 2018), defining research problems, collecting data, and even working in groups (Montebon, 2021).

Research skills, research attitudes, and research anxiety are all necessary in determining the quality and effectiveness of pre-service teachers in conducting research. Students who realize the value of research exhibit a positive attitude, whereas those who struggle with research exhibit anxiousness (Maravilla, 2020). Research anxiety was reduced and research interest increased when people believed that research was useful (Bolin et al., 2012). Therefore, to alleviate anxiety, students' attitudes toward research must be improved (Kakupa & Xue, 2019). The ability to conduct research itself also affects the level of anxiety of the students (Duman & Ertem, 2016). Thus, students who are less proficient are unable to fully execute what they have learned, resulting in increased anxiety (Sheu, 2017). Aside from student-related challenges, it is also revealed that the lack of internet facilities, research-related courses, library resources, computer literacy, and workshops are critical institution-related challenges that have negatively impacted students' capacities to conduct research (Mapolisa & Mafa, 2012).

Thus, virtual learning environments become increasingly prevalent in higher education and professional training during the pandemic. Although e-learning has already been utilized in other countries for decades, such as the United States of America, Canada and New Zealand (Powell & Barbour, 2011), it has only gained popularity in developing countries like the Philippines due to the current situation. Webinars and web conferencing are widely used as an alternative for seminars and workshops in response to students' needs in times of pandemic allowing participants and facilitators to communicate across distant geographical locations (Gegenfurtner & Ebner, 2019). A recent study by Torrato, Aguja and Prudente (2021), found that using Web Video Conferencing as a mode of delivery effectively delivered an educational experience, as evidenced by the enhanced teacher leadership skills and academic vitality of Filipino teachers who participated in the program.

After thorough research and review of related literature and studies, the researchers realized that there are no significant research endeavors, both international and local, that correlate the satisfaction of webinars and link among research skills, attitudes, and anxiety, especially in the context of pre-service teachers. Most studies and literature were only qualitative, particularly on the respondents' experiences on webinars (Mohalik, 2020; Ahrens, Zascersinska, Ramar & Andreeva, 2016; Pedroso, 2021; Gegenfurtner, Zitt & Ebner, 2020; Tanucan & Uytico, 2021), in which only a few focuses on research and thesis writing-related webinars specifically during the pandemic.

Accordingly, the Mindanao State University in General Santos City has been running a research webinar series called "Thesis Right Webinar: A Research Writing Boot Camp" for the past two years. Every episode features a different resource speaker who discusses a topic related to their area of specialization and help the pre-service teachers and other participants with their thesis. It is believed that pre-service teachers' level of proficiency increases with increased exposure to research. (Abinan, 2021). Therefore, the aim of this study is to determine the level of satisfaction of pre-service teachers in Thesis Right Webinars and the link among research skills, attitudes, and anxiety. As a result, the success of this study will be beneficial to the school administrators, teachers, parents, researchers, and the research community.

## 1.2. Context of the study

This research study was conducted in Mindanao State University- General Santos City. It is a leading higher education institution dedicated to providing affordable and high-quality education to students from across South Cotabato, Cotabato, Sultan Kudarat, Sarangani, General Santos City (SOCCSKSARGEN) and nearby regions. Apart from its academic mission, the University takes pride in its substantial research and extension endeavors that serve both the academic community and its supported sectors.

The University also offers an elementary education degree program under the Bachelor of Elementary Education Department to prepare individuals intended to teach in elementary level. The department aims to produce elementary school teachers equipped with developmentally appropriate philosophy of teaching responsive to the changing milieu; provide learning experience gears towards the development of pedagogical, research, and technological skills; and develop educators imbued with a passion for young, cultural sensitivity, profession ethics, and creativity. In line with this, the pre-service teachers undergo CPE108 Research Methods course as a prerequisite of GED199 Undergraduate Thesis. The two courses aim to prepare the pre-service teachers in writing and finishing their undergraduate thesis as one of the final requirements in completing their degree.

Webinars are online tools used to produce training and education via synchronous multimedia interaction between lecturers and respondents who are located in remote locations (Gegenfurtner, Zitt & Ebner, 2020). In Mindanao State University-General Santos City specifically in the College of Education, webinars were utilized to provide pre-service teachers with knowledge and skills in different areas of learning during online learning. One of the webinars provided by the institution is a research webinar series dubbed as "Thesis Right Webinar: A Research Writing Boot Camp" that aims to equip and inspire young researchers to write research papers and other scholarly papers. Thesis Right Webinar has four episodes focusing on a different topics comprehensively discussed by speakers are experts and with excellent backgrounds in their field. These topics are Subscription to Elsevier's Science Direct and Scopus Databases, Structural Equation Modeling, Theoretical and Conceptual Framework, and Qualitative Analysis: A Bedrock of Knowledge in Research.

## 2. LITERATURE REVIEW

### 2.1. Webinars during remote education

Webinars are online tools used to produce training and education via synchronous multimedia interaction between lecturers and respondents who are located in remote locations (Gegenfurtner, Zitt & Ebner, 2020). It was emphasized that in spite of the challenges identified by the participants, the use of webinars for research capacity strengthening seems to be a better option in the face of the current global COVID-19 pandemic (Komolafe et al., 2022). Additionally, webinars have a remarkable power to become a tool for teaching because it may be employed in the teaching and learning process regardless the locations of the participants (White, 2019). In the research study of Torrato, Aguja and Prudente (2021), it is suggested that as a result of the pandemic, the educational system must provide training to enable teachers to adapt to a new normal education that incorporates technology.

Educators must understand the potential of online instruction and communication to maximize the use of online resources and improve students' performance (Aguirre, Cerbito & Gayod, 2022) since webinars have a positive effect to the knowledge and abilities of the participants than asynchronous set-up and face to face set up and webinars are much more successful than other learning contexts at enhancing student accomplishment (Gegenfurtner & Ebner, 2019). Webinars also assists in the development of skills and knowledge related to the various topics covered in the online program and this demonstrates that there are positive employing webinars or online programs (Mohalik & Poddar, 2020). It can be used for a variety of purposes, including information dissemination, training, teaching and learning, and other activities. It is a highly recommended method since it can significantly benefit the teacher's and students' teaching and learning processes (Pedroso, 2021).

### 2.2. Research skills of pre-service teachers

Writing a comprehensive and effective research paper requires good practice and guidance as this skill does not develop naturally. One of the fundamental skills needed in research writing is research skills (Hamilton, 2019). Consistently, research competencies can be applied in various fields, including education, language and literature, medicine, library science, philosophy, psychology, and even religion, implying that the issues of

research competencies and academic literacy development are multidisciplinary (Castillo-Martinez & Ramirez-Montoya, 2021). The ability to locate and assess reliable information relevant to the chosen study as one of the research skills becomes more prevalent with the rise of the information age (Atar & Bagci, 2020). Authors must be as precise as possible when listing references in manuscripts (Roig, 2015) since there is no organization or editorial process that oversees the internet to ensure accuracy, objectivity, or currency, students must learn how to evaluate the information they read on the internet (Hartnell College Library, 2021).

Effective teachers have always been influential researchers (McRae & Parsons, 2022). The goal of teacher education is to produce educators who are committed to continual professional development, capable of ensuring student success, and future-ready. The effectiveness of instruction and the caliber of inquiry were found to be strongly correlated. Pre-service teachers who have written academic assignments like research papers feel that they have honed their research skills, adopted an inquiry mentality, and mastered research literacy. As a result of pre-service teacher research, are equipped to do inquiry-based work and can modify and enhance their practice in response to changes in their classrooms and schools (Katwijk et al., 2020; Alipio, 2019). Additionally, the study of Espinosa and Toquero (2018) the results shows that the level of perceived research skills of the pre-service teachers was believed to be affected by their research experiences for two to three years consecutively during their study in the university. However, it also shows that even though pre-service teachers are deemed to be ready in conducting different action research and seen to possess a conceptual understanding of action research, the quality of their output still reveals the need of improvement (Montebon, 2021).

### **2.3. Research attitude of pre-service teachers**

Attitude is the way one thinks about life and affects their performance. Learners' attitude impacts their achievement. (Butt & Shams, 2013). This is supported by the study of Capuno et al. (2019), which found that students' attitudes and study practices impact their academic performance and it is essential to strengthen the attitude. In the research of Habineza (2018), it is suggested that a positive attitude toward research should be developed as a means of increasing self-efficacy since a negative attitude toward research will only impede learning and the ability to perform research (Hussain et al., 2016). In addition to the study of Rind, Ali and Jamali (2022), the attitudes towards research are related to the challenges that cause stress and anxiety. There is a correlation between the students' cognitive and affective attitudes.

According to Maravilla (2020), Students who realize the value of research exhibit a positive attitude, whereas those who struggle with research exhibit anxiousness. Additionally, it demonstrates that conducting research has an effect on instructors' attitudes on research. (Leuverink & Aarts 2021). In the research of Natividad, Mangulabnan and Canlas (2019), results shows that having a positive attitude towards research can improve confidence in conducting research. Students' self-confidence and attitude towards research are related, as better self-confidence is associated with a more positive attitude towards research. Improving the teaching and learning process can also help students develop a better attitude towards research.

According to Kustati and Al-Azmi (2018), a person's attitude towards research is linked to their self-confidence, and recommended improving students' attitudes towards research to reduce anxiety. The results of the investigation showed a moderate outcome. The study shows that having a strong belief in one's own abilities leads to a positive attitude towards research and less stress while conducting it (Kakupa & Xue, 2019).

### **2.4. Research anxiety of pre-service teachers**

Anxiety is the fear, nervousness, or feeling of unease about something with an uncertain outcome, and worry that something might happen (Journal of Depression and Anxiety 2023). Research anxiety on the other hand, is about researchers losing confidence in conducting research, mastering research methods, and defenses losing their papers in front of research committees. Research anxiety causes people to underestimate their abilities as researchers, resulting in less confidence in their ideas (Matook, 2020). This is a real obstacle that gets little attention as a legitimate complaint (Calimag, 2020). Student anxiety can affect the process of dissertation proposal processing, as they may feel anxious, feel pressure from others, or find it difficult to find sources of literature, making it difficult to find a research topic (Widagdo et al., 2022).

Problems and hurdles can develop into bad attitudes and ultimately lead to anxiety that delays students writing their papers. Additionally, a study by Razavi, Shahrabi, and Siamian (2017) highlights that students

have multiple responsibilities in their personal and school lives, which can lead to stress. Research anxiety is also one of the most common forms of anxiety in student education, as research is one of the major challenges for students alongside teaching. According to the cognitive-behavioral therapy (CBT) approach, the anxiety experienced by college students is a cognitive distortion produced by opposing beliefs. Using CBT-based music can help students regain adaptive cognitive, emotional, and behavioral functioning, maximize their independence and potential, reduce research anxiety, and complete their bachelor's thesis (Situmorang, 2018).

Furthermore, results from a study by Karoglu (2022) suggest that students' fear of doing research is not affected by whether they have taken a course on scientific research methods. More interestingly, the study of Taşgın and Kaya (2018) shows that significant disparities in anxiety levels were seen amongst pre-service teachers' departments, with a preference for the Guidance and Psychological Counseling department.

### **2.5. Research anxiety of pre-service teachers**

Research skills, research attitudes, and research anxiety are all necessary in determining the quality and effectivity of pre-service teacher in conducting their undergraduate research. It could be inferred that if an individual has an adequate research skill this may put a significant effect on the research attitudes and anxiety or if an individual has a positive attitude towards research it could mitigate the anxiety that we have. In the study of Bolin et al. (2012) students' research interest was found to increase when they believed in the implication of research. Research anxiety was reduced and research interest increased when people believed that research was useful. Thus, it is suggested that strategies for improving a positive attitude and orientation toward research be implemented.

To greatly support the idea above, Sheu (2017) argued that student's anxiety skyrocketed if they are under the stress of participating in activities or completing tasks in front of the group or independently, especially if their communication skills prevent them from doing so or if they lack of the necessary skills. However, in the study of Natividad et al. (2019) it was revealed that the higher the research self-efficacy is, the more positive their attitude toward research is; however, research anxiety has no relation to individual's ability to conduct research. Furthermore, a research mindset does not contribute to teacher education students' anxiety levels. Additionally, it is also discovered that students in programs where research is required had a more positive attitude toward research, higher self-efficacy in research, and higher anxiety in research than students in programs where research is optional. The findings also revealed a strong positive relationship between students' attitudes toward research and their research self-efficacy (Angaiz et al., 2021).

It was also found out that higher research knowledge and skills correlates to an increase in students' appreciation of research and care for research. On the other hand, students who believe scientific research is impractical had a high level of research anxiety (Duman & Ertem, 2016). Thus, the reason behind the anxiety of the student towards research lies to their ability to conduct the research itself. With the support of the study of Ajmal & Ahmad (2019), it is recommended that instructors provide pupils positive feedback since low academic achievement is caused by excessive levels of anxiety. Teachers can help pupils overcome and minimize their anxiety by reinforcing positive conduct.

## **3. RESEARCH METHOD**

The researchers used a correlational research design to find out the level of satisfaction on Thesis Right Webinar A Research Writing Boot Camp and the link among research skills, attitudes, and anxiety of pre-service teachers. A correlational research design examines the correlations between variables without the researcher influencing or regulating them. The design is deemed appropriate to determine the level of satisfaction of the pre-service teachers on Thesis Right Webinar A Research Writing Boot Camp and the link among their research skills, attitudes, and anxiety. Purposive sampling was utilized to identify the respondents. The respondents are the participants of the Thesis Right Webinars A Research Writing Boot Camp, which are all the 136 pre-service teachers enrolled in the CPE108 Research Methods course during the Second Semester of Academic Year 2021-2022. The researchers used a survey questionnaire composed of 5 parts all adopted and modified. The first part is a survey questionnaire developed by the Bachelor of Elementary Education Department to evaluate their activities conducted online. It was developed in the year 2020 by the department to determine the satisfactory level of the pre-service teachers on thesis right webinars which were adopted from the last episode of the thesis right webinar. The second part is a survey questionnaire to determine the

level of Research Skills of pre-service teachers which was adapted and modified from the study of Espinosa and Toquero (2018) entitled *Academic Integrity: Influence on the Research Skills of the Pre-Service Teachers*. The questionnaire generated 0.976 of Cronbach's reliability which means it has excellent reliability. Meanwhile, the third and fourth part is a survey questionnaire to determine the level of Research Attitudes and Research Anxiety of pre-service teachers which was adapted and modified from the study of Maharajan et al. (2017) entitled *Pharmacy students' anxiety towards research during their undergraduate degree; How to reduce it?* The questionnaires generated 0.74 of Cronbach's reliability which means it has high reliability.

#### 4. DATA ANALYSIS

Table 1 shows that the pre-service teachers have a very high level of satisfaction on the Thesis Right A Research Writing Boot Camp. Overall, the pre-service teacher's level of satisfaction on Thesis Right A Research Writing Boot Camp got a mean of 4.72 describe as extremely satisfied. This implies that the pre-service students have very high level of satisfaction which means that the program meet their expectation. This was supported by the research of Rao (2019), where the results revealed that the participants show satisfaction on utilizing webinars as they are able to participate despite the geographic difference. Additionally, the result emphasize that webinars can provide knowledge to numerous strategies and methods that can be applied in different field which will be beneficial since it is updated. Although pre-service teachers were extremely satisfied on the Thesis Right Webinar A Research Writing Boot Camp, some recommendations from the evaluation form shows that the webinar still needs improvement particularly in time management where the facilitators often encounter technical difficulties that results to further delays. This result is supported by White (2019), webinars have a remarkable power to become a tool for teaching because it may be employed in the teaching and learning process regardless the locations of the participants. The webinar is viewed as a significant instrument but there are also issues emerging which it can generate worry since there are problems that might be faced during a webinar. Thus, there are also a need of improvement in utilizing webinar especially with the technicalities of the tool.

**Table 1:** Level of Satisfaction of the Pre-service Teachers on the Thesis Right, A Research Writing Boot Camp

Indicator	Weighted Mean	Description	Verbal Interpretation
<b>Program Content</b>			
1. There was an orderly flow of discussion.	4.72	Extremely Satisfied	Very Highly Satisfied
2. The objectives of the activity were achieved.	4.75	Extremely Satisfied	Very Highly Satisfied
3. The topics/ contents were relevant.	4.81	Extremely Satisfied	Very Highly Satisfied
4. The topics/content was organized and easy to follow.	4.72	Extremely Satisfied	Very Highly Satisfied
5. The content of the lectures met the training objectives.	4.75	Extremely Satisfied	Very Highly Satisfied
6. The activity experience will be useful in my work.	4.76	Extremely Satisfied	Very Highly Satisfied
<b>Mean</b>	<b>4.75</b>	<b>Extremely Satisfied</b>	<b>Very Highly Satisfied</b>
<b>Program Management and Facilities</b>			
1. The venue/ facilities were conducive for learning.	4.58	Extremely Satisfied	Very Highly Satisfied
2. The program was well paced within the allotted time.	4.57	Extremely Satisfied	Very Highly Satisfied
3. The facilitators/organizers were helpful.	4.65	Extremely Satisfied	Very Highly Satisfied
4. The manual/hand out distributed was useful.	4.53	Extremely Satisfied	Very Highly Satisfied
5. Participation and interaction were encouraged.	4.62	Extremely Satisfied	Very Highly Satisfied
6. The workshop lived up to my expectations.	4.65	Extremely Satisfied	Very Highly Satisfied
<b>Mean</b>	<b>4.60</b>	<b>Extremely Satisfied</b>	<b>Very Highly Satisfied</b>
<b>Speaker</b>			
1. The speaker showed illustration and clarification of idea (Competence)	4.79	Extremely Satisfied	Very Highly Satisfied
2. The speaker displayed thorough knowledge of the topic (Knowledge)	4.80	Extremely Satisfied	Very Highly Satisfied
3. The speaker confident and spontaneous in explaining the subject matter (Performance)	4.78	Extremely Satisfied	Very Highly Satisfied
4. The speaker sustained the participants' interests and built rapport (Presentation skills)	4.76	Extremely Satisfied	Very Highly Satisfied
5. The speaker managed his time properly (Time Properly)	4.75	Extremely Satisfied	Very Highly Satisfied
<b>Mean</b>	<b>4.78</b>	<b>Extremely Satisfied</b>	<b>Very Highly Satisfied</b>

<b>Over-all Impression</b>			
1. The webinar was beneficial to my research writing journey.	4.74	Extremely Satisfied	Very Highly Satisfied
2. The webinar helps me better understand different research concept.	4.74	Extremely Satisfied	Very Highly Satisfied
3. This webinar expounds my knowledge and skills in research.	4.73	Extremely Satisfied	Very Highly Satisfied
4. This webinar gives me a positive experience.	4.74	Extremely Satisfied	Very Highly Satisfied
5. This webinar encouraged me in writing my research paper.	4.74	Extremely Satisfied	Very Highly Satisfied
<b>Mean</b>	<b>4.74</b>	<b>Extremely Satisfied</b>	<b>Very Highly Satisfied</b>
<b>Over-all Mean</b>	<b>4.72</b>	<b>Extremely Satisfied</b>	<b>Very Highly Satisfied</b>

Source: Authors.

Table 2 shows that the pre-service teachers have very high level of the perceived research skills. Overall, the pre-service teacher's level of the perceived research skills got a mean of 4.57 describe as always. This implies that the pre-service teachers have very high level of perceived research skills this means that they have the capacity to search for, locate, extract, organize, evaluate, and use or present information that is relevant to a particular topic. Thus, the pre-service teachers of Mindanao State University-General Santos City has the capacity to effectively conduct the undergraduate research. This result corroborates with the findings of Katwijk et al. (2020) where pre-service teachers perceived to have a high level of research skills and believed that they are capable of conducting practitioner research after finishing the course. Similarly, in the study of Espinosa and Toquero (2018) it was revealed that pre-service teachers showed to have a high level of perceived research skills and was believed to be affected by their research experiences for two to three years consecutively during their study in the university. Considering the suggestion and recommendations from the respondents during the webinar the Bachelor of Elementary Education Department should continue to conduct the Thesis Right A Research Writing Boot Camp on a face-to-face set up considering other research-related topics such as the 7th generation of APA Format, Likert Data Analysis, Coding and Thematic Analysis, and etc. Confirming to the study of Hamilton (2019), writing a comprehensive and effective research paper requires good practice and guidance as this skill does not develop naturally. The more the pre-service teachers are exposed to research writing task the higher the potential of continues professional development.

16. I know how to select appropriately the instruments that are used to collect the needed data for my study.	4.59	Always	Very high level
17. I know how to follow different steps on what to do in conducting my research.	4.62	Always	Very high level
18. I know how to formulate the step-by-step procedure in gathering the data with ethical procedure.	4.57	Always	Very high level
19. I know how to determine the statistical method that I will use to treat the data gathered.	4.51	Always	Very high level
<b>Overall Mean</b>	<b>4.57</b>	<b>Always</b>	<b>Very high level</b>
on the title of my study.			
5. I know how to formulate the statement of the problem that will be investigated in my study.	4.52	Always	Very high level
6. I know how to formulate the reasons and beneficiaries in conducting my research.	4.55	Always	Very high level
7. I know how to state the scope and delimitation of my research and the topics that are supposed to be included and excluded in my study.	4.63	Always	Very high level
8. I know how to identify the reliable sources, facts and ideas that are needed to support my study.	4.61	Always	Very high level
9. I know how to identify the unfamiliar key terms used in the study with brief but clear definitions.	4.58	Always	Very high level
10. I know how to define the key terms operationally and conceptually.	4.57	Always	Very high level
11. I know how to identify the research methodology that is applicable for my study.	4.54	Always	Very high level
12. I know how to describe the respondents comprehensively to fit the purpose and provide the needed data of the study.	4.58	Always	Very high level
13. I know how to solve the respondents of my study with exact numbers needed for my study.	4.54	Always	Very high level
14. I know how to choose the exact locale of the study.	4.61	Always	Very high level
15. I know how to state the reasons in the locale of the study why I need to conduct it in the specific place	4.63	Always	Very high level

Source: Authors.

Table 3 shows that the pre-service teachers have high level of the perceived research attitudes. Overall, the pre-service student's level of the perceived research attitude got a mean of 4.14 describe as often. This implies that the pre-service students of Mindanao State University- General Santos City have high level of perceived research attitude this means that their internalized thoughts or attitudes and also their beliefs and feelings are favorable towards their research journey. This is supported by the study of Maravilla (2020), where based on their results student-teachers emphasizes that research is necessary for their job. Students who recognize the value of research exhibit a positive attitude, whereas those who struggle with research exhibit anxiousness. Students who understand the benefits of research display a positive attitude.

**Table 3: Level of the Perceived Research Attitudes of the Pre-service Teachers**

Indicator	Weighted mean	Description	Verbal Interpretation
1. I like research.	4.07	Often	High level
2. I enjoy doing research.	4.01	Often	High level
3. I am confident when I have to deal with research.	3.90	Often	High level
4. I am under stress while doing research.	4.22	Often	High level
5. I can learn from research.	4.58	Always	Very High level
6. I find it difficult to understand research concepts.	3.91	Often	High level
7. I find it difficult to understand research methods.	3.90	Often	High level
8. I find statistics formulas are easy to understand.	3.78	Often	High level
9. Research is a required part of my professional career.	4.57	Always	Very high level
10. Research skills make me more employable.	4.49	Often	High level
<b>Mean</b>	<b>4.14</b>	<b>Often</b>	<b>High level</b>

Source: Authors.

Table 4 shows that the pre-service teachers have high level of the perceived research anxiety. Overall, the pre-service teacher's level of the perceived research anxiety got a mean of 3.84 describe as often. This implies that the pre-service teachers of Mindanao State University-General Santos City have high level of perceived research anxiety this means that they have high level of mental state of mind characterized by persistent fear, discomfort, stress, and an anxious mood throughout their research work, in which the pre-service teacher's lacks confidence in conducting research, mastering research methods, and defending the dissertation before the research committee. The result is supported by the study of Situmorang (2018), college students shows to have a high level of research anxiety and think that an undergraduate thesis is a frightening project. And most college students use anxiety diversion strategies such as avoiding their thesis advisors, procrastinating, and engaging in non-productive activities. Thus, it was recommended that the research advisers should promote a human-centered pedagogy to lessen or decreased the level of research anxiety of pre-service teachers. It is suggested that instructors and faculty members should create a more relaxed and motivating atmosphere to minimize the student's anxiety in research. Having a more relaxed and motivating atmosphere will lead to students' experience of a more enjoyable both writing of research papers and on the day of the defense (Male, 2020).

**Table 4:** Level of the Perceived Research Anxiety of the Pre-service Teachers

Indicator	Weighted mean	Description	Verbal Interpretation
1. The closer I am to research work; the harder it is for me to concentrate on that.	3.90	Often	High level
2. When I perform research, I worry that I will not remember the research protocol.	3.90	Often	High level
3. During data analysis, I think that I am doing awful or that I may fail.	3.85	Often	High level
4. I lose focus on research and cannot remember important aspects.	3.65	Often	High level
5. Usually I remember what to do after the experiment is already over.	3.71	Often	High level
6. I worry so much before my performance that I am too worn out to do my best.	4.00	Often	High level
7. I feel out of sorts or not really myself when I take any research related tasks.	3.76	Often	High level
8. I find that my mind sometimes wanders when I am taking an important research task.	3.84	Often	High level
9. After completing a research project, I worry about whether I did well enough.	4.10	Often	High level
10. I struggle with writing research reports, or avoid them as long as I can.	3.74	Often	High level
<b>Mean</b>	<b>3.84</b>	<b>Often</b>	<b>High level</b>

Source: Authors.

Table 5 shows that there are no significant difference between the mean scores of the pre-service teachers in the pre and post evaluation on their research skills and research attitudes. However, there is a significant difference in the research anxiety and over-all results. Over-all result shows significant difference and the level of research anxiety too. This indicates that the Thesis Right Webinars, A Research Writing Boot Camp has helped to lower the research anxiety of the pre-service teachers. It is also supported by the study of Akyüz (2013), in which pre-service teachers taking up courses on research methods and statistics and carrying out a research study affect their anxiety.

**Table 5:** Difference between the Pre and Post Evaluation of the Research Skills, Attitudes, and Anxiety of the Pre-service Teachers

Indicator	Pre Evaluation	Post Evaluation	t-computed	p-value	Remark
Research Skills	4.57	4.50	1.252	.213	Not Significant
Research Attitudes	4.14	4.06	1.620	.107	Not Significant
Research Anxiety	3.84	3.26	8.136	.000	Significant
Over-all	4.18	3.94	5.661	.000	Significant

\*p < .05 is significant

Source: Authors.

Table 6 shows that Research skills of pre-service teachers significantly influence their research attitudes but not their research anxiety. Whereas, research attitudes of pre-service teachers significantly influence their research anxiety. Results reveal that there is a moderate significant positive correlation between research skills and research attitudes,  $r(136) = .547, p = .000 < .05$ , explaining only 29.9% of the variations in the research attitudes of the pre-service teachers. This means that the research attitudes of the pre-service teachers are influenced by their research skills. The result corroborates with the study of Serrano (2022) in which the results revealed that there is a significant relationship between how students feel about research and how they develop their research skills along the course. It is also noted that there is a low positive significant correlation between the research attitudes and research anxiety,  $r(136) = .294, p = .001 < .05$ , explaining 8.6% of the variations in the research anxiety of pre-service teachers. A p-value of less than .05, indicates that the relationships between variables are significant. This means that the research anxiety of the pre-service teachers is influenced by their research attitudes. The result is supported by the study of Angaiz et al. (2021) where a weak positive correlation was also discovered between research attitudes and research anxiety. On the other hand, there is a very low negative not significant correlation between research skills and research anxiety,  $r(136) = -.040, p = .640 > .05$ , explaining only .2% of the variations in the research anxiety of students. A p-value of greater than .05, suggests that the relationship between research skills and research anxiety is not significant. This means that the research anxiety of the pre-service teachers is not influenced by their research skills. This is supported by the study of Natividad et al. (2019), which stated that research anxiety has no relation to participant's ability

in conducting research since comparing the research self-efficacy, attitude, and anxiety of students, the findings indicate that there is no relationship between research anxiety and efficacy.

**Table 6: Relationship among the Levels of Research Skills, Attitudes, and Anxiety of the Pre-service Teachers**

Variables Correlated	r	r <sup>2</sup>	p-value	Remark
Research Skills and Research Attitudes	.547	.299	.000	Significant
Research Skills and Research Anxiety	-.040	.002	.640	Not Significant
Research Attitudes and Research Anxiety	.294	.086	.001	Significant

Source: Authors.

Table 7 shows that there is a significant relationship on the impact in the level of research skills and attitudes to the anxiety of pre-service teachers. In addition, the multiple R value of .433 indicates that the relationship between the said variables is moderate. The coefficient of variation or R-squared of .187 implies that 18.7% of the variations in the research anxiety are due to the impact of their skills and attitudes towards research. Furthermore, it is also noted that lower student-teacher research skills significantly increased research anxiety, and that more positive attitudes increased anxiety as well. This is supported by the research of Duman and Ertem (2016) which reveals that the higher the research knowledge and skills, the higher the students' appreciation and interest in research, and that the reason for students' fear of research was their ability to conduct research. Angaiz et al. (2021) also found that students in research-required programs had more positive attitudes toward research, higher research self-efficacy, and higher research anxiety. Furthermore, results show that having a more positive attitude also increases their anxiety, but that does not mean that student teachers cannot conduct research because according to Natividad et al. (2019) higher research self-efficacy was associated with more positive attitudes towards research. However, research anxiety is independent to a participant's ability to conduct research. Thus, it was recommended that the pre-service teachers should join research writing workshops to improve their research skills and attend any research-related distressing webinar to help them manage their research anxiety and promote a more positive attitude towards research. In order to effectively pursue educational learning goals, student-teachers should first manage research-induced anxiety.

**Table 7: Regression Result on the Impact in the Level of Research Skills and Attitudes to the Anxiety of Students**

Indicator	Extent of Relationships			
	Beta	t-value	p-value	Remark
Research Skills	-.216	-2.559	.012	Significant
Research Attitudes	.464	5.511	.000	Significant
Multiple R: .433 R-squared: .187 F-value: 15.330 Sig F: .000				
<i>Research Anxiety = -.216Research Skill + .464Research Attitudes</i>				
Poor research skills of the pre-service teachers significantly increase their research anxiety and more positive attitudes also increase their anxiety.				

Source: Authors.

## 5. CONCLUSION

Based on the findings of the study, it can be concluded that the pre-service teachers have a very high level of satisfaction on the Thesis Right A Research Writing Boot Camp. Also, the pre-service teachers have very high level in terms of perceived research skills, research attitudes, and research anxiety. It is also revealed that there is no significant difference between the mean scores in the pre and post evaluation on their research skills and research attitudes. However, there is a significant difference in the research anxiety and over-all results. The results further revealed that research skills of pre-service teachers significantly influence their research attitudes but not their research anxiety. Whereas, their research attitudes significantly influence their research anxiety. However, there is a significant relationship on the impact in the level of their research skills and attitudes to their anxiety.

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