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## RESEARCH IS LIFE: THE LIVED EXPERIENCES OF PRE-SERVICE TEACHERS ON THEIR RESEARCH COURSE

**Abstract:** Research is one of the trifocal functions of higher education in the Philippines. It is further cascaded to undergraduate research to ensure that undergraduates in collaboration with their mentor contribute intellectual discoveries or creative output relative to their discipline through research. This phenomenological research was undertaken to highlight the lived experiences of preservice teachers on their research course. To achieve this purpose, twenty-four preservice teachers enrolled in the course Research in Elementary Education A.Y. 2020-2021 were interviewed through online video conferencing. Based on the accounts of the participants, partnership, interaction, guidance, and fulfillment were among the four significant experiences in the course. It was further highlighted that challenges encompassed internet connection, writing the literature review, gathering data, and time constraints. Resources, hardware, support system, and time management were found to be the best practices of the participants in terms of addressing the identified challenges in the course. In terms of the necessary skills and attitude to be successful in the course, participants emphasized the need for communication, teaming and collaboration, information, media, and technology literacy, flexibility and adaptability, critical thinking, and time management skills. Also, motivation and perseverance were among the significant attitudes to be developed in taking the course.

**Keywords:** Undergraduate research; Preservice teachers; Phenomenology; Philippines.

### 1. Introduction

Research is one of the triad functions of Higher Education in the Philippines (CHED Memorandum Order #30 s. 2010). It is further cascaded to undergraduate research to ensure that undergraduates contribute intellectual discoveries or creative output relative to their discipline through research (Wenzel 1997; Stoesslein & Kanet, 2016). Research denotes a purposeful analysis to understand an existing educational concern (BERA-RSA, 2014).

The Council for Undergraduate Research and the National Conferences on Undergraduate Research emphasize that undergraduate research collaborates between students and faculty members. It further stimulates a learning process such as identifying and devising a disciplinary or multidisciplinary technique, defining a specific investigative topic, executing the project, and disseminating findings with others. It is further revealed that undergraduate research instills higher thinking skills, enhances students' knowledge, advances science literacy, and develops problem-solving skills.

Preservice teacher research serves both as professional development and an empowerment tool. It can develop a reflective practice that leads to the improvement of the teaching profession. Also, it allows them to utilize theory to support choices about various issues in their practice and share insights with others (Katwijk, Berry, Jansen, & Veen, 2019). Student research in teacher education is becoming a common requirement around the world, owing to the fact that research literacy constitutes an essential foundation for the holistic professional development of teachers (BERA-RSA, 2014; Sachs, 2016).

Perella, Dam, Martin, MacLachlan, and Fenton (2020) undertook a qualitative exploratory study to identify the experiences surrounding undergraduate research and inquiry and the barriers faced by facilitators and educators in its implementation. The data revealed that three models exemplified undergraduate research implementation and practices (i.e., scaffold, bookend, and abstract model). The scaffold model described programs that integrated the method across the whole undergraduate curriculum. The bookend model focused on the early introduction and future use of undergraduate research and inquiry. Lastly, the abstract model did not engage in investigations. Stakeholders also mentioned financing, teacher buy-in, limited student experience, and intrinsic competitiveness as barriers.

Students' motivations for participating in research include an improved understanding of terms and an interest in developing transferable skills. The most often reported hurdles included a lack of time and funding to perform research projects (Partido & Colon, 2019). Researchers needed research courses in the curriculum, research mentors, and strong undergraduate research committees to overcome research limitations.

Additionally, a study on the preservice teachers' experiences in conducting action research elucidated that preservice teacher recognized that it was not only that they developed research skills from conducting an authentic study, it also provided them an opportunity to acknowledge their strengths and areas of development in their teaching (Kennedy-Clark, Eddles-Hirsch, Francis, Cummins, Ferantino, Tichelaar, & Ruz, 2018).

Evidence depicted the urgency for teachers to be engaged with research to have a thorough understanding of the most recent innovations in the discipline, as well as efficient instructional strategies that lead to the development of their pedagogical content knowledge. Further, among the needs of teachers encompass the ability, motivation, and opportunity to utilize research-related skills to examine what works and what is not entirely effective in their practice (BERA, 2014).

With these pieces of existing evidence, it is deemed necessary to undertake this research to highlight the lived experiences of preservice teachers on their research course A.Y. 2020-2021.

#### *Objectives of the Study*

This study focused on preservice teachers' significant experiences and learnings on the course, the challenges they encountered in the course and best practices in addressing them, and the necessary attitude and skills that helped them succeed in the course.

## **2. Research Methods**

### **2.1 Research Design**

The research utilized phenomenology to describe one or more individuals' consciousness and experience of a phenomenon, particularly their experiences on the course Research in Elementary Education. The purpose of phenomenological research is to obtain a view into your research participants' lifeworlds and to understand their meanings (i.e., what something means to them) constructed from their "lived experiences" (Johnson & Christensen, 2014; Leavy (2017).

### **2.2 Participants**

Twenty-five (25) students of Bachelor of Elementary Education participated in the study. Of this number, twenty-three (23) were female, and the remaining two (2) were male. The study participants were third-year students of Batangas State University ARASOF- Nasugbu College of Teacher Education, the school year 2020- 2021. Total sampling was used to select the participants.

### **2.3 Data Gathering Procedure and Ethical Considerations**

The researcher asked permission from the Program Chair and the Dean of the College of Teacher Education. Upon the given approval from the concerned individuals, the course students went over their research course for two semesters with three units and one unit, respectively. During the first-semester students of the course: explain and apply the nature, purposes, and processes of research in crafting a knowledge-based study aimed at improving the quality of education; demonstrate proficiency in formulating research title, statement of the problem, and hypotheses considering the ethics and appropriate format and style; combine and apply the theoretical and practical approach in writing research literature; manifest their knowledge and skills as regards research methodologies, instrumentation, sampling, data collection, and data analysis; interpret the data and analyze the results and discussion utilizing cross-referencing; and formulate conclusions and recommendations based on the statement of the problem and significance of the study, respectively. Students during their second semester had finalized their manuscript and presented the results in an oral examination.

The researcher secured a consent form from the participants. It was explained they have the independence to participate in the interview and/or FGD and can cancel their participation if they decide to. Additionally, participants were not given monetary remuneration but were provided with a certificate of participation. It was also assured among the participants that the provided data and responses will be treated with the utmost confidentiality and will be compliant with the requirements stipulated in the Data Privacy Act of 2012. Participants were interviewed using the Google Meet platform.

Online interviews through Google Meet using a semi-structured guide were utilized to understand the students' research experiences. Five students were involved in the focus group discussion to validate the responses of the participants. Further, an online self-reflective journal, one of the course requirements, was also utilized to establish the significant experiences and draw about meanings from these accounts.

Results were analyzed using Braun and Clarke's qualitative interpretation, including familiarizing with the data, generating initial codes, searching for themes, reviewing themes, defining and naming themes, and producing the report (Lorelli, Nowell, White, & Moules, 2017).

## **3. Findings and Discussion**

### **1. Experience in the Course Research in Elementary Grades**

Four significant experiences were highlighted based on the accounts of the participants. It includes partnership, interaction, guidance, and fulfillment.

**Partnership.** Based on the interviews conducted among the participants, they claim that their best experience in the course is their collaboration with their co-researchers. The words of P1-24 can support this, "My best experience is the fact that I have groupmates whom I can ask whenever I needed clarifications in our research". Further, according to P1, 7, 9, 12, and 16, they have a research partner conducting the study, so they have someone to share ideas with and work with. This means that it is beneficial if researchers are accordingly grouped as it provides them interaction and partnership that lead them to achieve common goals. Also, collaboration in research has always been encouraged as it broadens the research scope, thus increasing its reliability.

**Interaction.** Accordingly, it is also highlighted that in the course of data gathering, participants had significant experience notably; it provided them an avenue to interact with other students in the University. This finding was reinforced by interviews with the respondents and was substantiated by the focus group discussions with the key informants about their interaction during data gathering. Some of them stated that: "It is when the questionnaires were already in Google Forms and sent it to our respondents" (P1, 2, 9, 10, 13, 14, and 15). "Another best experience is when we did our data gathering

because we had the chance to talk with other students from the same department. We were not just able to gather data, but we gain new friends as well" (P13). "Communicating with the respondents/interviewees is my favorite part. I am glad about the chance to interact virtually with other people during this pandemic period. This virtual interaction made me feel that I have built a sincere connection with them since we aimed to benefit them by knowing their perception and explain it in our paper" (P14). "My best experience in this course is when we are conducting our survey. I am always excited when sending our survey questionnaires to meet different learners who become my friends now (P15). It can be attributed to the idea that amidst pandemic, mass gatherings, including face-to-face classes, are restricted; thus, limiting students' social interactions.

Guidance. According to some participants, the guidance given by their research instructor and adviser during the course can be considered their best experience in the course. This can be strengthened by the interviews and accounts of the key informants during FGD regarding the guidance given by their instructor and research adviser during the course. Some of them mentioned: "Because of the thorough discussion of our instructor on the research processes, I can write our research and for me, it is my best experience" (P8). "The technical assistance given by my research adviser had helped us in finishing our research" (P3). The aforementioned quotes shed light on the idea that training and guidance provided by the research community (e.g., research instructor, research adviser, statisticians, and significant others) significantly contribute to the success of undergraduate research.

Fulfillment. It was also claimed that the participants' best experience could be described when they passed the oral examinations (proposal and final), which signified that their efforts and hard work had paid off. This finding is supported by the interviews and ideas provided by the key informants during the FGD on their fulfillment during the course. Some of them asserted: "My best experiences in this course were when our group finished writing our manuscript and when we finished defending our research paper" (P5). "My best experience was when we defended our thesis. It was nerve-wracking, but in the end, we survived; we defended it" (P6). "One of the best experiences was when we were able to finish our thesis defense. Although defending the thesis is far from what others say and what I have imagined, I can say that it is one of the best things because we survived it. It felt like all the sleepless nights and sacrifices had finally paid off, although revisions are not yet over. For us, it is something to celebrate because we know we worked hard for it" (P13). It can be stated that reporting and evaluating research as one of the processes can be viewed as challenging for most researchers. However, this plays a critical role in the overall success of the study; thus, this needs to be improved among students.

## **2. Significant Insights/ Learnings in the Course Research in Elementary Grades**

In order to further understand the lived experiences of preservice teachers on their research course, they were asked about their significant insights/learnings in the course.

Research process. Most participants had gained significant learnings on the research processes. The accounts of the participants can support this finding during the interview and FGD. Some of them claimed: "Use valid sources that are relevant to the topic" (P2). "In conducting research, there are a lot of methods so, it is imperative to select the most appropriate one" (P8). "In this course, I learned how to properly conduct a research study, unlike when we are in Senior High School. I become aware of the process of collecting data. I also learned that when conducting a study, all the gathered data should be properly analyzed, interpreted, and presented to show our findings clearly. I also learned that everything should be written carefully and make all the content of our study valuable and significant. Also, the findings, recommendations, and conclusions should be aligned with our statement of the problem and the output to be proposed in the study (P9). "Taking the course Research in Elementary Grades gave me so many learnings. Now, I feel more capable than before since I already have the experience of working on a thesis starting from scratch until it becomes a whole manuscript. I became more familiar with the process of research, including the format and style of every chapter. I also gain an understanding of the importance of literature review in a study from beginning to end. I also learned the value of ethics in gathering data. I have also become knowledgeable about the different kinds of research one may

conduct. When it comes to interpreting data, I learned that it should also be well supported by facts aside from what we have gathered. Taking this course also allowed me to explore and learn more about different productivity tools that I hadn't known before. I also learned about some statistical tools used in research, how it is done, and what kind of data is appropriate" (P15). This is a very positive finding as their knowledge of the research processes may help them improve teaching and learning. Further, it may also be used to pursue higher learning (e.g., Master's degree and Doctoral education).

Communication. Participants also mentioned that they have learned about the importance of effective communication skills in conducting research. Some of them specified: "I have learned how to communicate with our respondents virtually. I also learned that I needed to set a schedule for an interview to carry out successful data gathering" (P5). "Some of our participants were not willing to participate in the study due to time constraints; I have learned to effectively communicate to make a consensus in terms of the schedule for our interview" (P1-5). It is a significant finding as effective communication increases productivity in general. If researchers are effective communicators, it will constitute their success in conducting the study.

### **3. Challenges and Best Practices**

As revealed in the findings, there are challenges that participants experience in their research course. Additionally, they shared their best practices to address the challenges they had in the course. Challenges identified encompass internet connection, literature review, data gathering, and time constraints. Best practices highlight resources, hardware, support system, and time management.

#### **Challenges**

Internet connection. Brought about by CoViD 19 pandemic, most schools needed to shift to flexible learning that involves online learning, modular distance learning, and/or a combination thereof. Relative to this, participants had difficulties in the course due to the reliable internet connection. Some considered it a challenge to communicate with their groupmates, research instructors, research advisers, and their respondents due to inconsistent internet connection. The statements of the participants reinforce these results. P1 is quoted as saying, "First is the poor internet connection where we find it hard to communicate, cope up during our discussions and continue with the revisions of our paper". According to P7, "The primary challenge that I encounter has a slow internet connection. I encounter this challenge mostly when we are gathering data". P8 communicated, "Then of course online class is more difficult to do one of the extreme reasons is the connection, so it causes to take longer or be harder to work on each part that needs to be fixed". This finding is further described in the words of P9, "The challenges that I encounter is like the challenge that I still encounter in my other subject. The poor or weak connection that I had. I tried to try a different sim, but nothing of them works better. It was most challenging because I couldn't even understand simple sentences by our professor; it was so inaudible on my end".

Further, P14 illustrated that one of her challenges in this course was attending classes due to unstable internet connection and power interruption. There are times that she missed class discussions due to this challenge. This aspect needs to be improved to promote quality education in the country. According to Ookla Speedtest, in February 2021, the Philippines climbed to 83rd spot for mobile and 92nd for fixed broadband internet speed out of 140 countries (Department of Information and Communications Technology, 2021).

Literature review. Another challenge that was noted among the experiences of the participants was in writing a literature review. Participants were challenged in locating, selecting, and summarizing resources. Some of them conveyed: "My challenge in this course was to find different related pieces of literature in our research topic" (P5). "The challenge in the course Research in Elementary Grades is to find some literature that can be connected to our study because our study is new so that we can't find related research on it" (P12). "The challenge that I encountered in this course is finding relevant

literature" (P16). The finding coincides with the claim of Creswell (2012) that it can be challenging to search and locate good pieces of literature because of the vast information available.

**Data gathering.** Some of the participants likewise narrated that they had difficulty in gathering their data. These results can be gleaned from the interviews and accounts of the participants during FGD. Some of them related: "The challenge that I experience is when we are constructing our questionnaire. We found it difficult to find items that would truly suit our research objectives" (P6). "The challenge in this course is when we are struggling with the collection of data. It took too long to complete our respondents because many of the students are not giving time to answer our survey questionnaire" (P9). This challenge in conducting research may be addressed depending on the ability of the researchers to determine the participants to study, obtain permissions needed to conduct the study, consider the types of information to collect from several sources, locate and select instruments, and administer the data collection process to collect data.

**Time constraints.** As this course is one of the many courses that preservice teachers take simultaneously, they looked at time constraints as a challenge in conducting their study. According to most participants, they had difficulty in submitting research outputs on time, for they also had several requirements in other courses. Participant 14 is cited in saying: "Taking it together with other courses has been stressful as the overloading tasks and deadlines approach. We find it difficult to manage our time, and it makes us feel so restless sometimes. There are also times when we are unsure about what we are doing because we could not clarify instructions given to us". The aforesaid quote agrees with the idea that most teachers experience the same situation in writing research. With several workloads and other course requirements, they are limited to accomplishing their research in a specified time.

### **Best Practices**

**Resources.** In order to address the challenges identified by the participants, they shared that in terms of writing literature, what helped them was to use resources provided by the research instructor and those that can be found online. Some of them mentioned: "I looked for the reading materials we used last semester and used them as my pattern for making the whole manuscript" (P3). ". In terms of difficulty in writing our research study for the course, I try to look at the samples provided and also from the modules" (P7). "However, the strategy that I use is to look for a pattern of the old research paper to guide me as I make each part" (3). The findings established the need to provide relevant resources (e.g., e-books, modules, and research samples) to guide students in writing their research. These resources must be readily available in the learning management system for students to access these materials whenever necessary.

**Hardware.** In terms of internet connection, participants opted to spot their best location at home to establish reliable internet connectivity. This finding can be supported by the interview of the participants on how they addressed their internet connectivity challenge. Some of them declared: "Seek the best spot where you can find convenience as you do your study" (P1). "In terms of the challenge of having a low internet connection, I try to find a stable internet connection when we have discussions and also when we are working on our research study" (P10).

**Support system.** Most participants mentioned, "I overcome those challenges by believing that we can finish writing and defending our thesis. I overcome those challenges through the unending support and motivational words coming from my family and friends" (P5). "Engaging with peers. Asking my friends and classmates what the lesson that they had discussed in class. Gladly, they responded and cared for me. They help me and answer my numerous questions about the course" (P9). "In terms of clarifying instructions, we reached out to our instructors and other classmates for help. We also made sure that we'll clarify every instruction given to us so that we will not be left confused again" (P13). "I overcome these challenges by making a connection with my peers, and when I missed the class discussion, I chat with my friends to ask if what the discussion was all about" (P15).

Time management. "When it comes to overloading tasks, I learned to comply with requirements as early as possible so they would not pile up on my To-do List. After it is finished, that is when I start working on the thesis again so I'll be more focused" (P13). "Since my problems came from myself as well, I seek the presence of my research partner. We decided to have a communication every time. Also, we do not procrastinate. We learn to set aside other interests and focus on understanding our modules" (P14).

#### **4. Necessary Skills and Attitude**

In terms of the necessary skills and attitude to succeed in the course, participants emphasized the need for communication, teaming and collaboration, information, media, technology literacy, flexibility and adaptability, critical thinking, and time management skills. Also, motivation and perseverance as significant attitudes to be developed in taking the course.

"The necessary skills and attitude that help me in taking this course are being productive, determined, and bring positive-minded" (P5). "The attitude should be is to be patient and temperate. Be patient because a lot of revision will be done in the study, it is difficult to do, and you need to give a lot of attention and effort and diligence in reading to be the basis for making a research paper. Also be temperate, because sometimes there are points that will make you angry with your groupmates because you do not agree on things or maybe the groupmates become lazy and does not want to do what should be done which is the reason for you to do not understand each other and certainly will not help in making the paper, so just practice being temperate" (P8). "I believe having a positive mind and a wide range of patience helps me a lot while taking up this course. I may be experiencing breakdowns, but I am not getting to the point where I will stop. Becoming a leader is not easy; I should remain calm and must not pressure my team; instead, I should always push them at their best. Having open communication with the team makes everything go smoothly" (P10). "For me, it is perseverance in doing this, because even though you revise the paper so many times always think that the research paper that you are doing will lead to success" (P11).

"The necessary skills and attitude that help us in taking the course in the course Research in Elementary Grades is the cooperation with my groupmates, time management, and understand each member because when we help each other, we can easily finish the research and if there is some revision each member is trying to help to finish it. Cooperation is very important" (P12)

"For me, the necessary skills are having patience, a positive mind, and strong determination. Doing research is a very long process, and it is kind of draining at times, so having that determination to keep on doing things even one step at a time is important. It is also necessary to always be focused on your goal so that motivation for finishing the task remains. Taking this course has brought me a lot of negative thoughts, but having that attitude of looking at the bright side and the bigger picture is what keeps me going" (P13). "The necessary skills and attitudes that helped me in taking this course are time management, communication skills, analyzing the information, and being more patient in accomplishing the tasks given by our instructor" (P15). "The necessary skills and attitudes that helped me in taking this course are cognitive and cooperation skills because in making a particular task or study we should have those things to produce a better output" (P16).

#### **4. Summary of Findings**

The study's findings revealed that participants were able to practice collaboration with other researchers alongside their interaction with other students in the University during the data gathering process, hence, improved their communication skills. Further, it was highlighted that guidance from the research community (e.g., research adviser and course instructor) and the fulfillment after the completion of the research paper were among the significant experiences of the preservice teachers. The latter also contributed to the complete understanding of the research processes of the participants. As revealed in the participants' accounts, internet connection, literature review, data gathering, and time constraints were among the challenges they had experienced in their research course. Their best practices to

address the challenges include resources, hardware, support system, and time management. In terms of the necessary skills and attitude to succeed in the course, participants emphasized the need for communication, teaming and collaboration, information, media, technology literacy, flexibility and adaptability, critical thinking, and time management skills. Also, motivation and perseverance as significant attitudes to be developed in taking the course.

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