



Exploring the Learning Experiences of Pioneer BS Environmental Studies Students of Kalinga State University

Catherine C. Cawayan, Juman Kevin B. Tindo, Shinju Cawis Lingbawan

Received: 12 Nov 2022; Received in revised form: 11 Dec 2022; Accepted: 21 Dec 2022; Available online: 31 Dec 2022

©2022 The Author(s). Published by Infogain Publication. This is an open access article under the CC BY license

(<https://creativecommons.org/licenses/by/4.0/>).

Abstract— The BS Environmental Studies course is required as a frontline for environmental care, protection, and management. In Kalinga State University, it produced its pioneer BSES graduates in 2022. Individual interviews were employed in gathering the data—this employed phenomenology to qualitative research that focuses on the meaning of lived experience within a particular group. The information gathered was interpreted using the Creswell method. The study participants gained various meaningful experiences both during and after the training, it was discovered. After analyzing the data, the vast majority of the respondents' learning experiences were in a favorable direction.

Keyword— BS Environmental Studies, pioneer, phenomenology.

I. INTRODUCTION

Background of the Study

Environmental degradation, exacerbated by climate change, is one of the most pressing challenges of the 21st Century. Climate change has altered natural dynamics. According to the Intergovernmental Panel on Climate Change's Fourth Assessment Report (2007), the frequency and severity of landslide attacks have increased, resulting in severe flooding and landslides, as well as a decrease in average annual rainfall, both of which have impacted freshwater availability and agricultural productivity (IPCC, 2007).

What's more shocking is that the majority of the observed increase in global average temperatures, which has triggered and exacerbated environmental concerns since the mid-twentieth century, has been due to human activity., is very likely [more than 90% certain] due to the observed increase in anthropogenic greenhouse gas concentrations (IPCC Fourth Assessment Report, 2007).

These issues have highlighted the necessity for those who have received environmental training and education. As a result, environmental science is becoming

a critical instrument for creating a framework for efficient environmental management (CMO 35, 2005).

The first courses or modules in ecology and environmental problems were offered in the Philippines in the 1970s, as Sajise (2008) mentioned. Then, in the 1970s and 1980s, a surge in interest in ecology opened up new avenues for learning about ecosystems and how human activities affect them. Academic institutions are now implementing interdisciplinary research programs and institutionalizing graduate programs. As of press time, more than 50 schools in the Philippines provide bachelor's degrees, 31 master's degrees, and seven doctoral degrees in environmental science. He also stated that creating additional environmental scientific networks strengthened the practice.

One of the country's higher education institutions (HEIs) dedicated to environmental education is the Kalinga State University (formerly Kalinga Apayao State College). KSU approved the offering of BS Environmental Studies on July 16, 1997, through Board Resolution No. 124 series of 1997.

It was offered in 1998 at the Institute of Agriculture and Forestry (now the College of Agriculture).

Still, it was closed in 2002 due to the declined enrolment and no qualified faculty to teach the field. On August 13, 2018, while the CMO is yet to be released by CHED, the provisional curriculum of the BS Environmental Studies was approved through Board Resolution No. 1539 series of 2018. Further, the implementation of this curriculum has been in effect during 1st Semester SY 2018 – 2019, subject to the policies and guidelines of CHED with 16 enrollees.

The Certificate of Program Compliance (COPC) to operate the BS Environmental Studies Program was granted to Kalinga State University on October 5, 2020, through the CHED CAR Order No. 8 series of 2020. The course is now being offered at the College of Agroforestry and Environmental Studies in KSU – Rizal Campus.

While it is true that environmental science is a crucial course as a frontline for environmental care, protection, and management, it is imperative to have a deeper understanding of it - especially for those who are students in the said field. The learning experiences could help shape a better delivery of knowledge from teachers to students and vice versa.

There are few studies on the learning experiences of environmental science students, or even pioneer students, in an HEI. To compare and contrast, Daga's survey on the "Lived Experiences of Pioneering Graduates of the K to 12" indicated that the Department of Education's K to 12 Program is both disliked and admired by the participants. This research, therefore, is geared to understand, up to some level, how the KSU pioneer

environmental science students genuinely feel about the course they chose.

Students become "active participants in the learning process, sharing their experience with a teacher, or as partners in the learning process," according to Nightingale and O'Neil (1994), and there will be an easier and more focused circumstance that can lead to quality learning. Further, Šteh and Kalin (2012) also emphasized the importance of university teachers striving for quality by reflecting on their work, seeking feedback from students, providing optimal work conditions, and creating a university culture where students are increasingly co-designers of the learning process.

Since KSU's pioneer students of BS Environmental Studies are considered "test-driving" the current curriculum, this research encapsulates a holistic approach to student learning and development. It is also a testament to KSU's mission to primarily provide higher and advanced education, professional instruction, and training in the arts, agriculture, forestry, social and natural sciences and technology, and other relevant fields of study (KSU website).

II. CONCEPTUAL FRAMEWORK

This research is guided by David Kolb's Experiential Learning Theory, based on Jean Piaget, John Dewey, and Kurt Lewin's theories, Dixon et al. (1997).

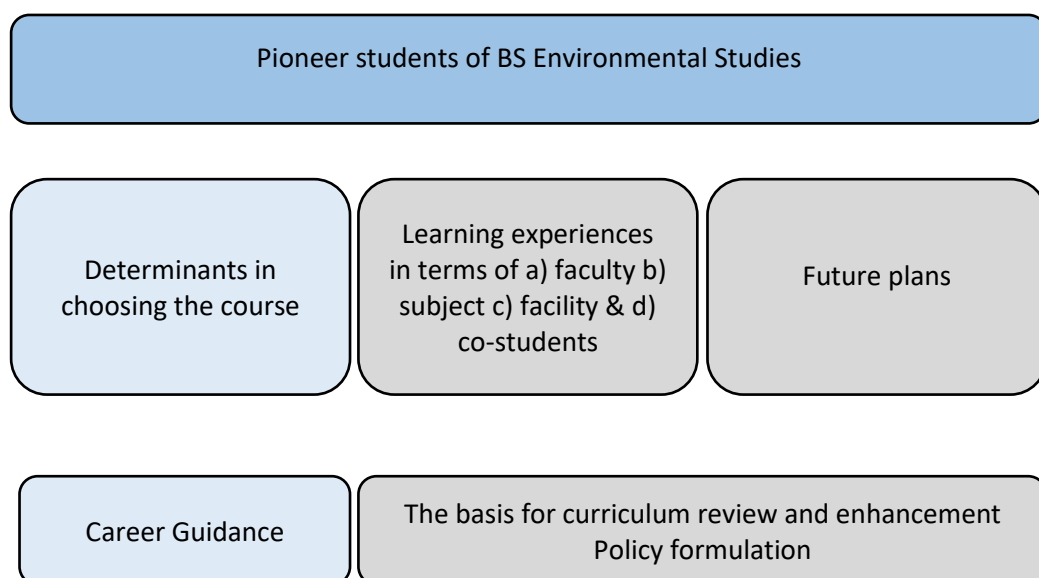


Fig.1. The paradigm of the study

Experiential learning is built on the idea that you can learn by doing, and the best way to learn is to have

experiences or learn via various relevant encounters. In simpler terms, you are learning by doing. Accordingly, this

type of learning is related to active education, action learning, adventure learning, cooperative learning, and the like (Itin, 1999). It is also seen that the said experiences can stick in the mind and help retain information and remember facts.

Kolb's Experiential Learning Theory works in four stages—concrete learning, reflective observation, abstract conceptualization, and active experimentation. The first two stages of the cycle are concerned with grasping an experience, whereas the last two are concerned with altering an experience. It is said that successful learning occurs as the student progresses through the cycle and that the learner can begin the process at any point.

This theory can be deduced as it requires showing directions to learners. As such, teaching plays a vital role in motivating people, as mentioned by Peter Senge, the author of *The Fifth Discipline* (1990). Experiences are significant in fashioning a holistic ability.

Statement of the Problem

Student participation in quality assurance is embedded in each school or educational institution. In KSU, it is emphasized in its Quality Policy – “Kalinga State University is committed to provide quality education...” – where students are the lifeblood of education. However, at times, the contribution of students to achieve excellence is forgotten and neglected.

The study fills in this vacuum and emphasizes the importance of students' involvement in shaping the academic community and learning culture in collaboration with other University stakeholders. It is understood that student participation must be equated and understood as full participation.

Moreover, this research pushes for an environmental science course that is multidisciplinary and includes the experiences of its students to shape a better curriculum to meet the needs and demands of the current atmosphere.

Objectives of the Study

The study sought to explore the mindset, motivation, and learning experiences of pioneer Environmental Studies students of Kalinga State University.

Specifically, it aimed to:

- a. determine the reasons for students in selecting the course;
- b. identify students' learning experiences in their studies, and
- c. cite students' plans after graduation.

Significance of the Study

Primarily, this study generates an authentic partnership with students in the holistic education preached by Kalinga State University. It is significant as it considers the fundamental responsibility of the University to listen and undertake a more active function for its studentry.

In August 2018, a new BS Environmental Studies program was offered. The curriculum is now in the 4th year of its implementation. Due to the demand for environmental protection and actions, the curriculum needs to adapt to the changing views on environmental conservation. As a result, this research can be used to help revise and improve the BS Environmental Studies program. The results will serve as a guide and foundation for suggestions in the policy formulation of the college. Lastly, the results can help the College Guidance and Counseling Office conduct career guidance for incoming first-year students.

Scope and Delimitation of the Study

The study includes the pioneer students of BS Environmental Studies who enrolled in its first offering during the 1st Semester of AY 2018 - 2019. Although most did not pursue the course, sixteen students were listed as the first enrollees and considered part of the respondents. However, only those who responded to messages from the research were included in the results and discussion.

Furthermore, the study focuses only on exploring the learning experiences of these students in terms of their selection of BS Environmental Studies as a course, experiences on faculty and staff, subjects, and facilities, and their plans after graduation.

Due to the COVID-19 pandemic, limited face-to-face data gathering was applied following minimum health protocols.

III. REVIEW OF RELATED LITERATURE

Students are called pioneers if they are the first group to experience curriculum restructuring, wherein every school year, they encounter new subjects first-hand. They are "test-driving" the curriculum for the curriculum designers and faculty members. These students are considered trailblazers; however, they are quality ready (cognitively and emotionally) to face learning tasks when a student has reasons for learning. Also, when a student will link previous knowledge with new knowledge; when a student becomes active during the learning process; and when the environment will offer a student practical support. According to Šteh and Kalin (2012), students have an essential role as partners in the learning community.

Aside from their significant part in the learning process, students' learning experiences also stem from what they have chosen as a course. According to Hussin et al. (2019), the determinants of selection addressed consist of a future career, passion, parental influence, and peer influence. Choosing a course to take in the next level of education is very important as it has a long-term impact on the students themselves.

In addition, new entrants, especially those living in the region, pointed out that institutional location was important in influencing their decision to study and controlled by the quality of life and leisure facilities the part has to offer (Anderson, 1999).

Students as environmental science graduates are also crucial in disseminating correct and proper information for environmental care, protection, and management. Entry-level science opportunities are available for graduates of the BS Environmental Science program. They can work on air and water quality management, energy and resource management, planning and design, waste management, and environmental evaluation, among other things. They can work in private firms, non-governmental organizations, government agencies, environmental impact assessors, conservation and resource management employees, project planning and assessment, and technical professionals. Graduate studies for greater specialization are also encouraged for BS ES graduates (CMO 35, 2005).

IV. DEFINITION OF TERMS

Environmental Studies - is a multidisciplinary academic field that systematically studies human interaction with the environment. Environmental studies connect principles from the physical sciences, commerce/economics, the humanities, and social sciences to address complex contemporary environmental issues.

Learning Experiences - refers to any interaction, course, program, or other experience in which learning takes place, whether it occurs in traditional academic settings (schools, classrooms) or nontraditional settings (outside-of-school locations, outdoor environments). It also includes traditional educational interactions (students learning from teachers and professors) or nontraditional interactions (students learning through games and interactive software applications).

Pioneer - the first cohort of students in curriculum restructuring, experiencing each year of the new program first-hand.

V. METHODOLOGY

Locale of the Study

The study was conducted in Bulbul, Rizal, Kalinga, where Kalinga State University – Rizal Campus is located. The researchers selected the state university since it offers the program BS Environmental Studies.

Research Design

This study is qualitative in approach, specifically phenomenology.

A phenomenology is an approach to qualitative research that focuses on the meaning of lived experiences within a particular group. This design is best suited for investigations where it is essential to understand several individuals' common or shared experiences of a phenomenon. This shared understanding is used to develop practices and policies and develop a deeper understanding of the features of the phenomenon under investigation. In this case, this study sought to explore the learning experiences of pioneer environmental studies students (Creswell, 2013).

Respondents

Respondents of the study are the students of BS Environmental Studies. Respondents are the pioneer enrollees of the course BS Environmental Studies that enrolled in the First Semester Academic Year 2018 – 2019 during its first offering. Drop-outs, shifters, and irregular students were still considered respondents, given that they have acted on the researchers' messages. 12 out of the 16 pioneer students were considered for the study.

Instrumentation

The researchers used an in-depth interview approach to gather sufficient data for this study. The researchers prepared an interview protocol/ guide, checked and validated by KSU – Rizal Campus faculty members.

The researchers prepared a uniform set of open-ended questions and used them to obtain the information pertinent to the study. These questions are within the parameters of the study. Open-ended questions were used throughout the interviews to encourage participants to respond freely and openly to queries. Follow-up questions were used, when necessary, to encourage participants to elaborate on or clarify a response.

Data Gathering

The conduct of this study was coordinated with the chair of the Department of Environmental Studies and the KSU – Rizal Campus Research chair.

Before the conduct of the study, the respondents were sent a message asking them to fill out a survey. The

respondents were informed of the purpose of the study and the extent of their involvement. They took their consent by letting them sign an interview protocol and support, which clearly states their freedom to decide to participate in the study.

The primary source of data is the researchers' constructed interview questions. The participants were allowed to answer the questions in the dialect/ language they were comfortable with.

The interview was conducted individually in a room or area where participants were comfortable sharing their experiences. Minimum health protocols were observed during the conduct of the limited face-to-face interviews. Vaccination cards were asked of the respondents to prepare before the interview.

Data Analysis

The data analyses were based on the participant's responses to the interview questions. The data gathered from the informants was transcribed correctly, categorized, and thematized.

This study follows Creswell's (2013) six steps in the data analysis process.

Step 1: Prepare the data for analysis by organizing and preparing it. The researchers reviewed audiotapes from interviews and transferred them into word document transcripts during this step.

Step 2: Read thoroughly the data. The researchers considered the overall relevance of data to acquire a general sense of the information and opinions offered by the participants. The information was separated into useful analytical components.

Step 3: Begin detailed analysis with the coding process. Coding organizes the data by bracketing chunks and writing a word representing a category.

Step 4: Use the coding process to generate a description setting or people and categories for this analysis. The researchers used this process to create codes for the descriptions, which then led to generalizing a small number of set categories or themes. Then the researchers analyze the themes that emerged.

Step 5: Advance how the description of the themes was represented in the qualitative narrative. For this step, the researchers weaved the emergent themes into narrative passages so that findings emerged logically from the participants' responses.

Step 6: Interpret the meaning of the data. These data were analyzed thematically and according to the objectives of the study. The researchers focused specifically on what they said to convey the participants'

perceptions of their experiences. The participants' responses during the interview were the basis of the researchers in creating meaning for the data.

VI. RESULTS AND DISCUSSION

Reasons of students for selecting the course

Upon the data gathering and analysis, there is a dominant reason why the respondents chose BS Environment Studies (BSES) as a course. Most respondents said they decided on BSES as a "second course." The respondents' term is different from the second course, which means a 'second undergraduate program pursued after a student has finished his first academic degree.' The respondents indicated by "second course" that they shifted to BSES, as they did not pursue their first courses upon entering college.

The respondents chose BSES for several reasons. One respondent mentioned that he decided on BSES over BS Information Technology because of curiosity and that it is near their home. Another said that she chose BSES over BS Agroforestry and BS Information Technology because it is a new course, and she wanted to try it.

One particular respondent answered that she chose BSES because she believes there is a wide variety of job opportunities after graduation. "*Ado pagaply-an nga trabaho daytoy nga course*," she said.

A similar tone was observed in the respondents' responses for selecting BSES. Most of them said that they chose BSES, particularly at KSU, because of the low tuition the University offers. Aside from the course's location, the low tuition factor was also a significant consideration while choosing a course. One respondent said, "*2nd course ta 1st-course ko ket BSED, no choice, BSAF ni Manang ko sunga BSES met kanyak ken nabababa jy tuition fee compared ejy nagapwak nga private institution*" ("I chose BSES as I did not finish BS Education and my sister is enrolled in BS Agroforestry that is why I chose BSES. Also, the tuition fee is low here in KSU compared to the private institution I came from.")

According to Alba et al. (2020), one factor that affects the most regarding college course decision-making is the family's financial stability. The researchers observed it because there was an undercurrent. Some respondents had difficulty deciding whether to pursue the BSES degree they wanted or the one their family could afford. It is noted that KSU-Rizal Campus has BSES and BS Agroforestry as course offerings. The campus is the nearest state tertiary institution in the Municipality of Rizal, where most of the respondents come from. But it must be noted that despite

this thought, the student's motivation for choosing the course has a promising direction.

Motivations in finishing the course

Most of the students mentioned that they are motivated to finish the course despite the reasons for choosing it. The respondents said that their goal is to complete their studies and learn more about the environment and how they can be a part of the solution to environmental degradation.

One respondent said that shifting to BSES from BS Social Works, although influenced by her older sister, is motivated by the desire to find work after graduation.

Despite most respondents saying that BSES is their "second course," their motivation to finish and give back to their families is the primary reason.

Learning experiences (faculty, subject, facility, and co-students)

The researchers emphasized to the respondents that anything they share, positive or negative, during the interview will be treated with confidentiality. Their responses will not affect their grades in any way, and their answers will purely be for educational purposes.

The respondents shared positive experiences concerning the faculty members who taught them in their major and minor subjects. They appreciated the teachers' thoughtful approach to delivering knowledge to them. One respondent said that the teachers are doing their best to help students cope with lessons. Also, another respondent mentioned that the teachers teach the right things and motivate them when they feel that they could not very well understand the class.

Meanwhile, there are also constructive criticisms that the respondents narrated. One respondent said that the teachers are great companions, but sometimes they do it continuously without breaks when they teach. Another said that teachers are very much helpful in explaining the subject; however, at times, they do not give updates to the class regarding requirements.

One respondent stated that they cannot understand the teachers' lessons during the pandemic due to internet connectivity issues.

One particular response was also directed towards the lack of faculty members wherein one semester; they have more than two subjects taught by only one teacher. The respondent hopes that the faculty members will grow to address this issue in the future.

On the other hand, the respondents deem those subjects in the BSES curriculum overlap, for example, subjects like Benefit-Cost Analysis and Environmental

Valuation; Environmental Economics and Econometrics; and Environmental Sanitation and Solid Waste Management. One respondent said she hoped these subjects could be merged because some of the lessons were becoming repetitive.

One respondent said that the BSES curriculum subjects were very challenging; however, it is good that the faculty members are willing to help the respondents understand the lessons, especially when teachers connect concepts with real-life situations.

Also, at least three respondents mentioned their hope for the BSES curriculum to have an On-the-Job Training (OJT) component. One respondent said that an OJT could help them prepare for their future jobs as graduates of BSES. Another respondent mentioned that an OJT could open doors and windows for them in different government and non-government organizations which deal with the environment.

The last comment of the respondents regarding their subjects in the BSES curriculum is for the course to have 18 units of Professional Education subjects so that after graduation, they can also apply for the board exams (teaching).

The learning experiences of the respondents with regards to the facilities of the campus revolve around lacking laboratory equipment and computers. They said that some laboratory activities could not be performed due to the inadequacy of equipment in the laboratory. The respondents hope to increase the units for computers to accommodate every student, especially during research work.

The respondents' peer learning experiences also are gearing in the positive direction, as most of the respondents will each other study for lessons. Some respondents with more secure internet connections offer their place to their classmates during online classes in the flexible learning modality.

"Tulong-tulong ta basit kami ket ti kayat me ket malpas kami amin. Tulong-tulong in the sense nga we motivate each other ken bagaan suda nu madi ti ar-aramiden da" ("We help each other because we are a small group and want everyone to finish our studies. We help each other in the sense that we motivate each other and tell our classmates if they did something wrong.") one respondent said.

Prospect after graduation

Since the BSES curriculum has no board exam eligibility, most respondents said they plan to take the Civil Service Eligibility Examination after graduation. As a result, agencies like the Department of Environment and

Natural Resources and the Department of Agriculture may be able to help individuals find work.

One respondent said that she would pursue 18 units of Professional Education to teach in the future eventually, and another one mentioned that he would apply to the Philippine Military Academy.

Overall, the respondents would like to find work after finishing the BSES course.

VII. CONCLUSION

1. The reasons for choosing BSES as a course do not necessarily affect the motivations for finishing the course. BSES might not be a priority course for most respondents; however, their motivation for completing the course is a clear path toward a successful future.
2. Most of the responses towards students' learning experiences in the BSES curriculum are geared toward a positive response. These responses mean that the BSES is so far meeting its mandate.
3. Since Environmental Studies is a multidisciplinary field, most respondents plan to work for agencies and organizations connected to the area. The respondents' desire to have eligibility after graduation is a good sign that they are serious about doing great.

VIII. RECOMMENDATION

1. There must be a curriculum review of KSU's BSES curriculum.
2. There must be a convergence and training of schools offering BSES to retool and share best practices.
3. BSES must be promoted to the Kalinga community to increase the enrollees and ignite the passion of senior high school students for the environment.
4. The faculty can do more in-depth research about the learning experiences of BSES students.
5. Integrating BSES subjects into community immersion or outreach programs can help advocacy.

REFERENCES

- [1] Alba, K.E.C, et al. (2010). The Factors that Affect Students' Decision in Choosing their College Courses. Our Lady of Peace School, Antipolo City.
- [2] Anderson, P. (1999). Factors influencing student choice in higher education. *Perspectives: Policy & Practice in Higher Education*, 3(4), 128-131.
- [3] CHED Memorandum Order No. 35 (CMO). (2005). Minimum Policies and Standards for Bachelor of Science in Environmental Science (BSES). Commission on Higher Education.
- [4] Creswell, J. (2013). *Qualitative inquiry & research design: Choosing among five approaches*. Thousand Oaks, CA: Sage.
- [5] Daga, CC (2021). Lived Experiences of Pioneering Graduates of the K To 12 Program. *IOSR Journal of Research & Method in Education*. Volume 11, Issue 1 Ser. VII (Jan. – Feb. 2021), PP 23-27. DOI: 10.9790/7388-1101072327
- [6] Dixon, N. (1999). *The organizational learning cycle. How we can learn collectively*. UK: McGraw Hill.
- [7] Hussin, N. L., Muhamad, N., & Sukor, M. K. T. A. (2019). Determinants of Student's Choice of Courses and University Selection. *Journal of Business Innovation*, 4(2), 71.
- [8] Intergovernmental Panel on Climate Change (IPCC). (2007). Summary for Policymakers. In *Climate Change 2007: The Physical Science Basis; Contribution of Working Group I to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change*; Solomon, S., Qin, D., Manning, M., Chen, Z., Marquis, M., Averyt, K.B., Tignor, M., Miller, H.L., Eds.; Cambridge University Press: Cambridge, UK, 2007; pp. 1–18.
- [9] Itin, C. M. (1999). Reasserting the Philosophy of Experiential Education as a Vehicle for Change in the 21st Century. *Journal of Experiential Education*. <https://doi.org/10.1177/105382599902200206>
- [10] Jarvis, J., & Woodrow, D. (2005). Reasons for choosing a teacher training course. *Research in Education*, 73(1), 29-35.
- [11] McLean, M. (2004). Pioneer students. *Medical education*, 38(9), 1014-1014.
- [12] Naghtingale, P., & O'Neil, M. (1994). *Achieving quality learning in higher education*. London: Kogan Page.
- [13] Sajise, A. U. (2018). Lectures on the Journey of Environmental Science in the Philippines. SESAM. <https://sesam.uplb.edu.ph/news/sajise-lectures-on-the-journey-environmental-science-in-the-philippines/>.
- [14] Senge, P. (1990). *The Fifth Discipline*. Currency. ISBN: 0-385-26095-4.
- [15] Šteh, B., & Kalin, J. (2012). Students' Views on Important Learning Experiences--Challenges Related to Ensuring Quality of Studies. Bulgarian Comparative Education Society, Paper presented at the Annual Meeting of the Bulgarian Comparative Education Society (10th, Kyustendil, Bulgaria, Jun 12-15, 2012).

APPENDIX

Dear Respondents,

Good day!

The BS Environmental Studies faculty members are conducting research entitled "Exploring the Learning Experiences of Pioneer BS Environmental Studies Students of Kalinga State University." Your participation in this survey is highly appreciated. Please answer the following questions according to your experiences.

Your answers will be used for educational purposes, and rest assured that these will not be taken against you.

A. Demographic Profile

Name: _____

Sex: _____

Address: _____

Age: _____

Date of birth: _____

Marital Status: _____

Religion: _____

Ethnicity: _____

B. Lived Experiences

1. What are your reasons for taking up a Bachelor of Science in Environmental Studies? What motivated you to choose the course?

2. What are your experiences in the following during your stay in the college?

a. Faculty

b. subject (course learning)

c. facility

d. Co-students

e. Other: _____

3. What are your prospects after graduation?

4. What organization/agency are you planning to work with?