# Analysis of the Experiences of the Nueva Ecija University of Science and Technology's BSIT Students: A Follow-Up Study

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*Abstract*— *This study aimed to analyze the experiences of the NEUST Graduating Students S.Y. 2021-2022 during their four-year stay at the University. This paper was a follow-up study of research entitled "Analysis of the Expectations and Experiences of the NEUST First Year BSIT Students for S.Y. 2018-2019." The main objective was to gather comparative and comprehensive results of the students' expectations, experiences, and overall satisfaction rating of their residency in the College of Information and Communications Technology (CICT) now that they have completed their degree in Information Technology. The researchers used the descriptive research method to describe the respondents' profiles and satisfaction with their experiences. The purposive sampling technique was used to gather the satisfaction ratings of the students. A questionnaire was distributed online as the primary data gathering tool, where the results were evaluated using a weighted average. The findings showed that the NEUST CICT produced students confident enough to find related jobs with the skills they have acquired from their education. During their stay at the University, they were able to give satisfaction ratings on their experiences and the services offered by the College during pre-pandemic and pandemic semesters. Based on their evaluation, both categories garnered very satisfactory ratings, but the pre-pandemic set-up was rated noticeably higher. As the final output, the researchers have come up with a list of improvements needed through a proposed action plan that can be adopted by the College of Information and Communications Technology for capability enhancement and service improvement.*

## I. INTRODUCTION

As a follow-up study of research entitled "Analysis of the Expectations and Experiences of the NEUST First Year BSIT Students for S.Y. 2018-2019", this paper follows the same theoretical and conceptual frameworks. It continues the exploration and evaluation of students' experiences to measure the quality of learning the institution provides. Like the previous research, this study also considers factors such as the environment, the methods of instruction, and the culture which are deemed to have essential effects on the students' learning and knowledge gain.

The significance of the research, Analysis of the Experiences of NEUST BSIT Students: A Follow-up Study, is broken down into the following specific objectives:

1. identify the profile of the graduating students;

2. identify the key areas the students find satisfactory and which are not;

3. identify the key areas that need attention or improvement;

4. identify how the knowledge and experience gained from the College contributes to their confidence in landing a job in their field of expertise; and

5. verify the consistency of the responses gathered three years ago and the current year to be able to come up with a more cohesive action plan for the College.

As mentioned in the parent study, Jean Piaget's Theory of Constructivism highlights the importance of determining the internal processes that motivate an individual to learn and how "every person organizes his/her experiences and perspectives into "schemata." Upon which are cognitive structures that adapt and evolve with mental development. (Wadsworth, 1996). Furthermore, Piaget believes that "humans create knowledge through the interaction between their experiences and ideas." (Kimmons, R. & Caskurlu, S., 2020).

Thus, knowing the students' overall experience and satisfaction with regard to the learning experiences provided by the University and the CICT, in particular, may help in coming up with improved methods of adjusting and retooling to make the learning environment more conducive for the students.

Similar to the previous the conceptual framework of this research includes the profile of the students which includes awards they applied for and their degree of confidence in landing a job as the input. Then, statistical analysis will be applied to produce measurable results on which the proposed action plan was based. (Luciano, et.al, 2021). Please see figure 1, research paradigm.

This study sought answers to the following questions:

1. How can the profile of the respondents be described in terms of:

1.1 gender;

1.2 age;

1.3 awards applied for in the University; and

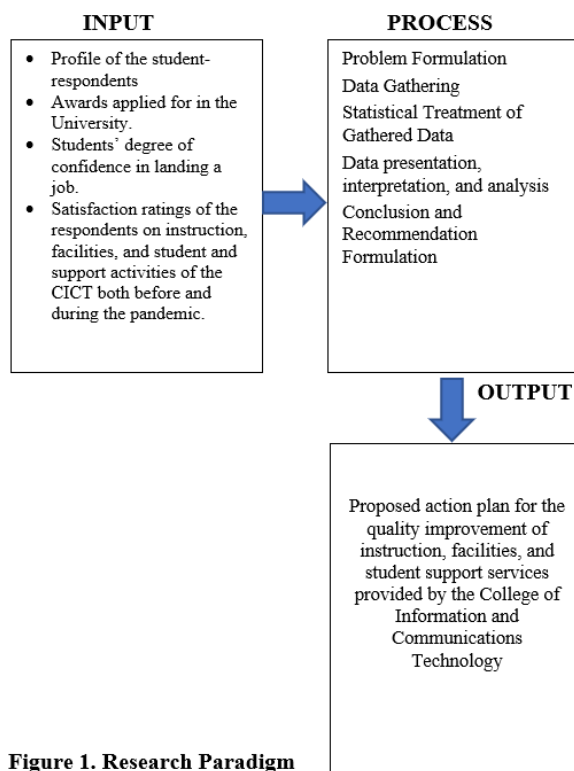1.4 degree of confidence in landing a job in their field of specialization?



Figure 1. Research Paradigm

2. How can the expectation and satisfaction level of the graduating students regarding the CICT in pre-pandemic years and during the pandemic be described in terms of:

2.1. instruction;

2.2. facilities; and

2.3. student support and activities?

3. How can the results of the study be utilized in improving the services provided by the College of Information and Communications Technology?

## II.    MATERIALS AND METHODOLOGY

The study utilized the descriptive research method which focuses on the concept of "problems can be solved and practices improved through observation, analysis, and description" " (Koh, et al., 2000). It sought to describe the students' profile, degree of confidence in landing a job, and satisfaction rating on different services based on their experience during their whole stay in the university.

The researchers used purposive sampling wherein the respondent pool was chosen based on a specific common characteristic: their year level. There was a total of three hundred forty-four (344) graduating students of the Bachelor of Science in Information Technology (New Curriculum). Upon which, the researchers were able to

gather data from one hundred ninety-two (192) fourth-year students which make up 55% of the population.

Questionnaires were the primary data gathering tool utilized and distributed via Google Forms. The questionnaire was comprised of three sections: students' profiles, experiences, and satisfaction during the pandemic, and before the pandemic. With regards to expectation and satisfaction-related questions, they were further categorized based on instruction, facilities, and student support and activities. The data gathered were then evaluated using a weighted average.

The researchers used the following statistical tools in treating the gathered data:

For research problem number 1, the percentage was used to describe the profile of the respondents as to gender, age, awards applied for, and degree of confidence in landing an Information Technology job.

For research problem number 2, weighted mean (Wm) was employed to determine the expectation and satisfaction level of the fourth-year BSIT students with regard to instruction, facilities, and student support services. The results were then ranked to help visualize and identify the services that they were most satisfied with and those who were not. The following scale was used to describe the responses of the students:

| Scale | Range | Verbal Description |
|-------|-------|--------------------|
| 4 | 3.26 – 4.00 | Highly Expected / Very Satisfied |
| 3 | 2.50 – 3.25 | Expected / Satisfied |
| 2 | 1.75 – 2.49 | Somewhat Expected / Moderately Satisfied |
| 1 | 1.00 – 1.74 | Not Expected / Dissatisfied |

## III. RESULTS AND DISCUSSION

This section provides the presentation and discussion of the significant findings of this study.
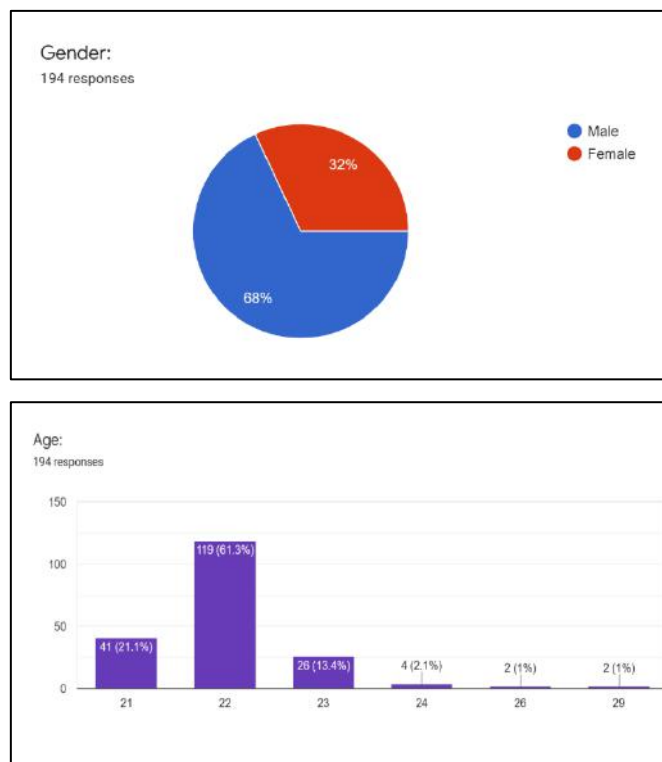
**Demographic Profile of the Respondents**



*Fig.1: Profile of the Respondents*

Figure 1 above shows the sex and age distribution of the respondents. Among the 194 respondents, 132 or 68% were male and 62, or 32% were female. The majority of them are between the age of 21 to 23 years old. This profile is typical of a college graduate in the Philippines. The respondents are actually the second batch of the K-12 completers who pursued the BSIT program at the University.
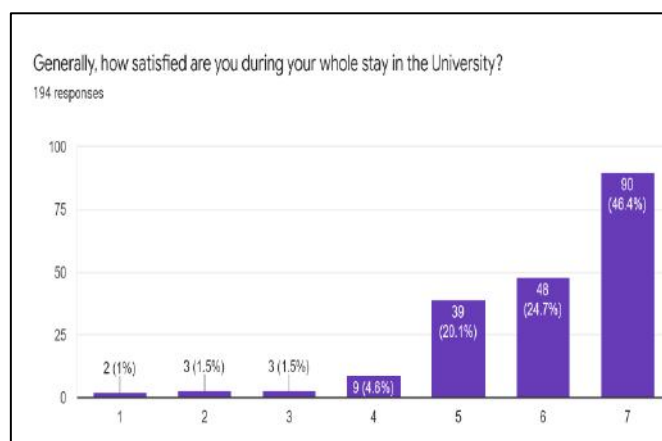


*Fig.2: Stay at the University*

Almost half, ninety or 46.4%, of the respondents, were very satisfied with the services they received during their whole stay at NEUST. However, it is noteworthy to mention that their satisfaction level might be influenced by

many factors such as the abrupt implementation of online/virtual classes and services which occurred in March 2020 when the coronavirus (COVID -19) pandemic severely affected the school operations not just in the Philippines but in the whole world.

Figure 3 shows the level of confidence of the respondents in the possibility of being able to get IT-related jobs. Of the 194 respondents, 50 of them (25.8%) were very confident that they will be able to get IT-related jobs after graduation. While there were also a few respondents, 10 or 5.2% whose confidence to land in an IT-related job is quite low. This finding implies that despite the sudden shift in the delivery of instruction, student-respondents are still confident that they have acquired the necessary skills and competencies they need to be able to get IT jobs or at least get an opportunity to work in IT-related industries. The same finding surfaced in the studies conducted by Luciano, et.al and Luciano, 2020.
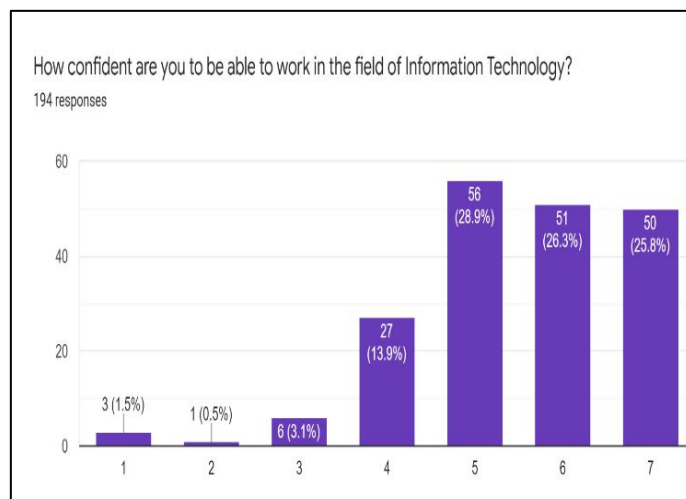


*Fig.3: Level of Confidence to Work in the Field of IT*

*Table 2. Level of Satisfaction on Student Services Received Before the Pandemic*

| Item Statement (PRE-PANDEMIC) | 4 | 3 | 2 | 1 | Wm | VD |
|---|---|---|---|---|---|---|
| 1. Quality of Teaching (Teaching ability of my IT instructors) | 132 | 57 | 5 | 0 | **3.65** | **VS** |
| 2. Professionalism of my IT Instructors | 140 | 50 | 4 | 0 | **3.70** | **VS** |
| 3. Academic advising/interest that teaching staff take in my progress | 123 | 65 | 5 | 1 | **3.60** | **VS** |
| 4. Opportunities to develop skills | 134 | 49 | 11 | 0 | **3.63** | **VS** |
| 5. Fellow students' academic ability | 108 | 79 | 7 | 0 | **3.52** | **VS** |
| 6. Availability of computers and technology | 124 | 61 | 7 | 2 | **3.58** | **VS** |
| 7. Lecture/tutorial rooms and laboratory facilities | 139 | 47 | 8 | 0 | **3.68** | **VS** |
| 8. Library | 114 | 69 | 10 | 1 | **3.53** | **VS** |
| 9. Places to study on campus | 135 | 46 | 12 | 1 | **3.62** | **VS** |
| 10. Extra campus facilities (i.e., banks, café, parking, bookshop, etc.) | 94 | 61 | 31 | 8 | **3.24** | **S** |
| 11. Chances to pursue my social interests | 111 | 68 | 14 | 1 | **3.49** | **VS** |
| 12. Quality of the social life at this university/college | 136 | 51 | 5 | 2 | **3.65** | **VS** |
| 13. Opportunity to meet new friends | 150 | 41 | 2 | 1 | **3.75** | **VS** |
| 14. Extra-curricular activities | 124 | 60 | 8 | 2 | **3.58** | **VS** |
| 15. Student support services (i.e., student government, scholarship assistance, counseling, etc.) | 120 | 61 | 9 | 4 | **3.53** | **VS** |
| General Weighted Mean | | | | | **3.58** | **VS** |

Table 2 above shows the level of satisfaction of respondents with the services they received from the University during the first two years of their stay on the campus. The top three (3) services they have received are the opportunity to meet new friends (3.75, VS); the professionalism of IT instructors (3.70, VS), and lecture and tutorial room and facilities (3.68, VS). On the other hand, the least service they have experienced is the availability of extra facilities on the campus such as banks, café, parking, and bookshop among others with a mean score of 3.24, satisfactory.

These findings imply that before the pandemic, students were very satisfied with the programs and activities of the university in general and of the CICT in particular. It is important to stress, however, that respondents are also looking forward to having other in-campus facilities that will make their stay on the campus more satisfying. The University officials may consider putting up extra campus facilities as part of the campus development program of the University. Facilities such as parking spaces for students, banks or ATM kiosks, food courts, book shops, etc.

*Table 3. Level of Satisfaction on Student Services Received during the Pandemic*

| Item Statement<br>DURING PANDEMIC | 4 | 3 | 2 | 1 | Wm | Desc |
|---|---|---|---|---|---|---|
| 1. Quality of Teaching (Teaching ability of my IT instructors) | 134 | 54 | 6 | 0 | **3.66** | **VS** |
| 2. Professionalism of my IT Instructors | 149 | 40 | 5 | 0 | **3.74** | **VS** |
| 3. Academic advising/interest that teaching staff take in my progress | 127 | 55 | 12 | 0 | **3.59** | **VS** |
| 4. Opportunities to develop skills | 125 | 53 | 13 | 3 | **3.55** | **VS** |
| 5. Fellow students' academic ability | 106 | 78 | 8 | 2 | **3.48** | **VS** |
| 6. Availability of computers and technology to be used for my online classes | 109 | 63 | 19 | 3 | **3.43** | **VS** |
| 7. Lecture/tutorial rooms and laboratory facilities | 128 | 56 | 10 | 0 | **3.61** | **VS** |
| 8. Modules and materials provided | 121 | 60 | 13 | 0 | **3.56** | **VS** |
| 9. Schedule and implementation of online classes | 113 | 65 | 11 | 5 | **3.47** | **VS** |
| 10. Virtual classroom used by my teachers (e.g., zoom, google meet, Schoology, etc.) | 138 | 51 | 2 | 3 | **3.67** | **VS** |
| 11. Online facilities of the university | 109 | 59 | 17 | 9 | **3.38** | **VS** |
| 12. Quality of the social life at this university/college | 112 | 67 | 9 | 6 | **3.47** | **VS** |
| 13. Opportunity to meet new friends | 112 | 53 | 13 | 6 | **3.29** | **VS** |
| 14. Extra-curricular activities | 119 | 64 | 15 | 5 | **3.62** | **VS** |
| 15. Student support services (i.e., student government, scholarship assistance, counseling, etc.) | 113 | 60 | 15 | 6 | **3.44** | **VS** |
| **General Weighted Mean** | | | | | **3.53** | **VS** |

Table 3 above shows the level of satisfaction with the student services they have received during the last two years of their stay at NEUST when most, if not all, of the transactions are being done in a virtual or online setup.

Among the top three services are the professionalism of IT instructors (3.74, VS); quality of teaching, particularly the teaching ability of IT instructors (3.66, VS), and virtual classroom setup (3.67, VS). While the services that

garnered the least ratings are: the opportunity to meet new friends and the availability of computers to be used for online learning with 3.29 and 3.43 mean scores, respectively. These findings imply that students' social life and interaction are higher during the time face-to-face classes are conducted. It also is noteworthy to mention that for the respondents, the professionalism of IT instructors remains the same in both traditional or face-to-face and online/virtual setups.

**T-TEST FOR 2 DEPENDENT MEANS**

| GROUP | PRE-PANDEMIC | DURING PANDEMIC |
|---|---|---|
| *Mean* | 3.5833 | 3.5307 |
| *SD* | 0.1194 | 0.1219 |
| *SEM* | 0.0308 | 0.0315 |

The computed two-tailed P-value is equal to 0.2842. By conventional criteria, this difference is considered to be not statistically significant at a 95% confidence level. This means that respondents' satisfaction and experiences with the student services they have received for the last four years or during their stay at the NEUST remain the same.

**Proposed Action Plan**

Based on the findings of the study, the researchers came up with a proposed action plan for the further quality improvement of instruction, facilities, and student support services provided by the College of Information and Communications Technology. See page 7.

## IV.     CONCLUSION AND RECOMMENDATIONS

After the collation and interpretation of the data gathered, the researchers arrive at the following conclusion.

That the Nueva Ecija University of Science and Technology, particularly in the College of Information and Communications Technology, caters to a diverse and wide student demographic. Based on the profiles collated, the gender allocation in the said college is at par with the local and international scenarios. Based on their SHS profiles, the first-year population is comprised of students from both private and public institutions. This acknowledges that the students came from diverse school cultures, hence, can be helpful in the establishment of co-curricular and student support activities, as well as designing and planning of facility and environment improvement to make their adjustment to the campus and culture comfortable and smooth. Moreover, the majority of the first-year IT students took up Tech-Voc and STEM which, from interviews with the students, were identified as the ones that gave them experience and background knowledge in programming and ICT.

Also, student-respondents are highly motivated in pursuing their college degree because they believe that this would help them in getting a better and more stable job/career in the future. This will eventually help them to earn money to support the financial needs of their respective families. It can be said that the main motivating factor that the students have corresponds to what NEUST can offer based on its mission statement: To develop new knowledge and technologies and transform human resources into productive citizenry to bring about development impact to local and international communities.

In addition, first-year BSIT students have high expectations of the University in terms of instruction, facilities, and student support services. And after completing two semesters in the CICT,

*Table 5 Action Plan*

| PROGRAM / ACTIVITY | OBJECTIVE/S | PERSON/S INVOLVED |
|---|---|---|
| Plan and conduct focused orientation programs that involve the discussion of:<br>1. The NEUST culture, VMG, and what the school has to offer in terms of the student's welfare and development<br>2. Academic and classroom policies<br>3. Career development<br>4. Gender and development and the support the University provides | Conduct a focused orientation program that acknowledges the diversity of the students. | Students<br>Parents<br>CICT Dean, Program Head, Faculty<br>USG / CICT Student Council<br>Guidance Coordinator<br>OSA Head<br>OSOAD Head / Coordinator |

| PROGRAM / ACTIVITY | OBJECTIVE/S | PERSON/S INVOLVED |
|---|---|---|
| 5.  Extra and co-curricular activities | | |
| Formulation of CICT Comprehensive Faculty Development Plan | Continuously strengthen the faculty members' skills and competency level through training and further studies | CICT Dean, Program Head, Faculty |
| Development of Feedback System Guidelines and Policies | Heavily encourage constant feedback systems and endorsement of consultation opportunities for the students | CICT Dean, Program Head, Faculty<br><br>Guidance Coordinator |
| Review and enhance the physical plant/site/facilities development plan based on the identified needs of the students. | Continuous improvement of facilities, particularly the learning centers, laboratories, and recreational areas to be able to provide a conducive learning environment and to keep up with the current trends and technological requirements of the Information Technology course. | CICT Dean<br><br>CICT LRC Coordinator<br><br>University Librarian<br><br>MIS / UCC Head<br><br>Campus Director<br><br>Marketing Officer<br><br>Budget Officer<br><br>Procurement Officer |
| Establishment of additional departmental clubs and/or organizations in the area of:<br>1.  Programming<br>2.  Music<br>3.  Visual and Digital Arts<br>4.  And other support clubs | Promote and establish clubs/organizations that encourage creativity and exploration of social skills and interests of the students. | CICT Dean / Program Head<br><br>Students<br><br>Club/s Advisers<br><br>OSOAD Head / Coordinator<br><br>CICT Student Council |
| Design a departmental training plan for students focusing on:<br>1.  Latest trends and issues in Information Technology<br>2.  Enhancement seminars and technical workshops on the latest software packages, programming languages, and other necessary IT skill-set and techniques<br>3.  Motivational seminars providing the students with guest speakers that are successful in the IT field | Provide more training and seminars to keep the students interested and well-informed in their chosen field of study. These can help maintain a high degree of confidence in the students. | CICT Dean, Program Head, Faculty<br><br>Students<br><br>Resource Speakers |
| Incorporate the discussion of NEUST VMG in the syllabi and ensure its implementation in the classroom and non-classroom activities. | Continue to instill the mission, vision, and culture in the classroom and school activities. | CICT Dean, Program Head, Faculty<br><br>Students<br><br>CICT Student Council |

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