

Factors Affecting the Dropout Rate Among Information Technology Students: A Basis for an Intervention Plan

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ABSTRACT

Student dropout is one of the challenges commonly encountered by learning institutions. It has been a problem and several studies have been conducted to know the reasons for dropping out to craft solutions appropriate and contextualized to different types of learning institutions. This study seeks to determine the dropout rates of the Bachelor of Science in Information Technology students in a state university in Nueva Ecija, Philippines during the Academic Year 2020-2021. The study was conducted in time of the coronavirus 2019 pandemic to understand the reasons of the IT students for dropping out. Descriptive research design was used in this study and statistical treatment such as frequency and percentage distributions were used to quantitatively describe the data. Results revealed that there is a 10.79% decrease in enrollment from the first semester during the second semester of Academic Year 2020-2021, majority of the students who have not enrolled are from the first year level, and the three major reasons why student-respondents decided to stop schooling are (1) availability of resources, (2) financial difficulties, and (3) conflicts with their work schedules. Researchers suggest that to lessen the number of student dropouts, instructors are encouraged to motivate their students, especially those in the first year level to continue their studies and strive to excel in their chosen program. Also, the guidance and counseling office of the college may craft programs and activities to boost the interest of the students to study hard amidst the challenges they encounter. Lastly, the students may be informed and introduced to different financial assistance such as scholarships available in the university.

Keyword: - descriptive, intervention plan, student dropout

1. INTRODUCTION

Education is critical to a country's economic growth since it boosts people's capacity and ability to be more productive economically. Every kid, including those living in poverty, in war-torn countries, or with impairments, has the right to education. For many individuals, education is the way out of poverty. It allows people to get the information and skills they need to enhance their life.

Providing quality tertiary education is one of the goals of Philippine Higher Education and the passage of the Republic Act 10931 or the Universal Access to Quality Tertiary Education Act is one of the proof that the Philippine government is doing its best to provide a better future to the next generation [1][2]. With this law, many students have the opportunity to finish their undergraduate programs and secure a better future for their families. While measures have been put in place to ensure access to quality basic and tertiary education in the Philippines, the student dropout rate is still one of the challenges which various learning institutions face today. Dropout refers to "student's failure to complete the current stage of education where he or she is currently enrolled due to several

reasons” [3]. Another definition explains that dropout is the situation where students leave school without graduating or completing the program [3][4]. To contextualize, this study defines dropout as the number of students discontinuing their college education from one semester to another due to several factors and reasons.

Dropout rate is one of the indicators which provides a measure on how effective an educational system is. A number of implications can be observed when learning institutions have an increasing number of students’ dropout. Thus, it is necessary for schools to look into why students leave the school or have to stop their education.

Before the enactment of RA 10931, dropout rates in 2012 in the tertiary level revealed an alarming 83.7 percent in the Philippines as cited by Bodoso (2018). In the similar study, Bodoso (2018) expressed that in a state university where the investigation focused, students who dropped increased as records from the registrar’s office showed from Academic Year 2012-2013. This case is a common problem to other higher learning institutions. Thus, the passage into law of the Republic Act 10931 provides the possibility of decreasing numbers of student dropouts at the tertiary level.

While many students are benefiting from free tertiary education, the number of students leaving schools during the start of the Coronavirus 2019 (COVID-19) pandemic has become a concern to many. The COVID-19 pandemic has severely impacted education systems around the world as millions of children and students are now out of school due to shuttered institutions. Towards the end of March 2020 when most countries had introduced COVID-19 preventive measures, over one billion students worldwide were affected [6]. Gamboa (2021) asserts that the alarming number of new dropouts caused by the pandemic “exacerbates an already existing high number of out-of-school youths (OSY)” which has been estimated at 3.5 million in 2017. The increasing number of OSY is a serious issue which may lead to bigger problems in the future when left unchecked and unmanage as expressed by Philippine senators [8]. Philippine Senator Gatchalian expressed that at least 2.3 million children would not enroll in 2020 as the education sector shifted from a distance mode of learning [9]. At the onset of the pandemic, the OSY rate in January 2020 is 16.9 percent and rose to 25.2 percent in April 2020 according to a study by the US Agency for International Development in November 2021 as cited by Bautista (2022).

Several problems in student dropout have been expressed in different literature locally and internationally. However, this can still be investigated to contextualize the understanding and solutions to be implemented to mitigate its negative impact to the society in general, and to the future generation. Yadav and Mehta (2018) found out that common problems encountered by students who left school include socioeconomic status, lack of parental support, low family education, family mobility, students absenteeism, lack of interest in education, and delinquent behaviors.

This study focuses on investigating the profile and the reasons for dropping out by the Information Technology students in a state university in the Philippines to suggest measures on how to lessen the number of dropouts and to contribute to the growing number of literature focusing on this topic.

1.1. Statement of the Problems

This study answers the following research questions:

1. How may the dropout rate of the Bachelor of Science in Information Technology (BSIT) students be described in terms of enrollment data during the Academic Year 2020-2021?
2. How may the factors for dropping out from school be described?

2. MATERIALS AND METHODS

This study employed descriptive research. According to Dulock (1993), as cited by Luciano and Olipas (2021), descriptive research aims to “describe” the variables under investigation without identifying its connection to other variables [12]. The main goal is to provide information about the relevant features or details of the variables under study that is to describe the profile of the BSIT students in terms of enrollment data and dropout rate. This will aid the researchers to understand the condition by collecting data, analyzing and interpreting these data, and making sense of the results for informed decisions. Observations and survey tools are used in this study to collect the data for analysis. Quantitatively, data are analyzed using statistical treatment like frequency and percentage.

This study was conducted in a state university in Nueva Ecija, Philippines. The researchers used a self-made instrument to identify the factors and various reasons why a number of BSIT students chose to drop out of the university. Of the 201 students who dropped out from the first semester of Academic Year 2020-2021, 54% of them were contacted, constituting 109 total number of respondents. In the conduct of data gathering, researchers ensure that gathered information is treated with utmost confidentiality. Table 1 presents the distribution of respondents per year level.

Table 1. Distribution of Respondents

Year Level	N	n	%
First Year	118	83	41.29
Second Year	66	15	7.46
Third Year	7	5	2.48
Fourth Year	10	6	2.99
Total	201	109	54.22

3. RESULTS AND DISCUSSION

3.1 Enrollment Data of BSIT Students

Table 2 shows the enrollment distribution from first to fourth years for the school year 2020-2021. The first-year dropout rate is the greatest, at 118 (18.8%), followed by the second-year dropout rate of 66 (9.7%). The fourth-year dropout rate is at 10. (6.5%) while the third year level is only 7 (1.7%). The distribution depicts that most of the students dropped out from the program in the first year. Academic unpreparedness can be one of the reasons for this [13]. There are instances that students have not properly prepared for the academic demands of the program they entered into, resulting in them quitting or shifting from one program to another. The lack of funds and financial support can also be a major reason for dropping out. Thus, many first year students do not continue their college education [14].

Table 2. Frequency and Percentage Distribution of Enrollment Data and Number of Dropouts

Year Level	Total Number of Enrollees (1st Semester)	Total Number of Enrollees (2nd Semester)	Number of Dropouts (Difference between 1st Semester and 2nd Semester Enrollment)	
			f	%
First Year	626	508	118	18.8
Second Year	679	613	66	9.7
Third Year	402	395	7	1.7
Fourth Year	155	145	10	6.5
Total	1862	1661	201	10.79

3.2 Factors from Dropping Out

Table 3 shows the top five reasons given by respondents for not enrolling during the second semester of Academic Year 2020-2021.

Table 3. Factors for Dropping Out

Item Statements	f	Rank
No resources (e.g Internet, Laptop, etc.) available for use in the distance mode of learning	30	1
Financial Difficulties	18	2
Conflict with schedules	14	3
Too hard to work full-time and be a student in an online environment	13	4
Family Problems	9	5
Lack of one-to-one interaction with instructors and classmates	9	5

The top reason is the unavailability of resources (internet, laptop, etc.) that students can use ($f = 30$). Second is the financial difficulties that students are facing due to the pandemic ($f = 18$). The third on the rank is a work-related concern, conflicts with schedule ($f = 14$). Rank 4 has something to do with the third item in the rank, they found it hard to work full-time and be a full-time student at the same time in an online course ($f = 13$). And the top 5 reasons are: family problems ($f = 9$) and lack of one-on-one interaction with their teachers and peers ($f = 9$).

Students are too often dropping out of college because of lack of funds to keep going [14]. This statement is especially true during the time when classes are conducted in school, face-to-face classes. Now that the classes are done online, due to the current health situation in the Philippines, results of the survey showed that the unavailability of resources that they can use in their classes is the main reason why they decided not to enroll. These students are

having a hard time coping up with the course requirements because of the absence of the internet, mobile phones or even computers that they can use in their studies.

While financial issues are probably the most common reason for dropping out of college, every student has their own reasons. Some unfortunately have family issues, a lack of support, or unexpected medical problems that are beyond their control. Other students find school to be too stressful and that they are not sufficiently prepared. In some cases, students are unhappy with their setup because they want to interact with their instructors and classmates personally, finding their studies to be a waste of time. Hence, end-up dropping out before completing their studies.

Table 4 shows the details about the reasons for not enrolling during the second semester of Academic Year 2020-2021 to further understand the cause.

Table 4. Reasons for not enrolling

Item Statements		f	Rank
Personal Reasons			
1.	Financial difficulties	18	1
2.	Lack of time to complete the assignments, which took more time compared to traditional courses	6	
3.	Schedule conflicts	14	
4.	Family problems	9	
5.	Others (Transfer to another school near their residence, change program, health concerns)	7	
Total		54	
Job-Related Reasons			
1.	Job responsibilities changed during the program	2	3
2.	Too hard to work full-time and be a student in an online course	13	
3.	Others (no job, cannot support studies)	3	
Total		19	
Program-Related Reasons			
1.	Too many low-level assignments	1	4
2.	Too difficult working on the group assignments	1	
3.	Lack of one-to-one interaction with the instructors and students	9	
4.	The academic program was too difficult/demanding	3	
5.	Lack of interest in the material or the program didn't meet expectations	2	
Total		15	
Technology-Related Factors			
1.	The learning environment was too de-personalized	2	2
2.	No resources (internet, laptop, etc.) available for use	30	
3.	The technology overwhelmed the content	2	
4.	Lack of technical preparation for the program	4	
Total		38	

4. CONCLUSIONS

The following conclusions were drawn based on the findings of this study.

1. There is a 10.79% decrease in enrollment from the first semester during the second semester of Academic Year 2020-2021
2. Majority of the students who have not enrolled are from the first year level.
3. The three major reasons why student-respondents decided to stop schooling are (1) availability of resources, (2) financial difficulties, and (3) conflicts with their work schedules.

5. RECOMMENDATIONS

Based on the conclusion, the following recommendations were derived:

1. To lessen the number of dropout students, instructors are encouraged to motivate their students, especially those in the first year level to continue their studies and strive to excel in their chosen program.

2. The guidance and counseling office of the college may craft programs and activities to boost the interest of the students to study hard amidst the challenges they encounter. Activities like a series of workshops and seminars that help increase the level of interest of the IT students.
3. Students may be informed and introduced to different financial assistance such as scholarships available in the university.

6. REFERENCES

- [1] Montemayor, M.T. (2018). Gov't provides access to free, quality college education. Philippine News Agency. Retrieved from <https://www.pna.gov.ph/articles/1042168>
- [2] RA 10931 (2017). Republic Act No. 10931. Retrieved from <https://www.officialgazette.gov.ph/2017/08/03/republic-act-no-10931/>
- [3] Dekkers, H., and Claassen, A. (2001). Dropouts: Disadvantaged by definition? A study of the perspective of very early school leavers. *Studies in Educational Evaluation*. 27. 341-345. ISSN-0191-491X
- [4] Suh, S. (2001). Korean American Adolescents' Perceptions of contributors to school dropout. (Doctoral Dissertation)
- [5] Bodoso, E. (2018). Why students dropped?. *International Journal of Current Research*. 10(08). 73649-73651.
- [6] Nortajuddin, Athira (2020). More School Dropouts In A Pandemic? The ASEAN Post. <https://theaseanpost.com/article/more-school-dropouts-pandemic>
- [7] Gamboa, R. (2021). Dropouts left behind in the pandemic. *Philippine Star*. Retrieved from <https://www.google.com/amp/s/www.philstar.com/business/2021/06/29/2108717/dropouts-left-behind-pandemic/amp/>
- [8] Romero, O. (2021). Senators alarmed over increasing number of dropouts. *Philippine Star*. Retrieved from <https://www.google.com/amp/s/www.philstar.com/headlines/2021/02/08/2076087/senators-alarmed-over-increasing-number-dropouts/amp/>
- [9] Gotinga, JC (2020). More than 2M 'dropouts' as schools adapt to pandemic. <https://www.rappler.com/nation/gatchalian-says-millions-dropouts-schools-adapt-pandemic>
- [10] Bautista, J., (2022). UNICEF: Many children drop out as in-person classes reopen. *Inquirer.Net* Retrieved from <https://www.google.com/amp/s/newsinfo.inquirer.net/1577764/unicef-many-children-drop-out-as-in-person-classes-reopen/amp>
- [11] Yadav, V.S., and Mehta, D. (2018). Issues and challenges of dropout students of Mirzapur District. *International Journal of Advanced and Innovative Research*. 7(6). 2278-7844
- [12] Ruth G. Luciano, Cris Norman P. Olipas(2021).An Inquiry on the Self-Esteem and Self-Efficacy Level of Information Technology Students. *International Journal of Advanced Engineering, Management and Science*(ISSN: 2454-1311),7(9), 13-17. <http://dx.doi.org/10.22161/ijaems.79.3>
- [13] The Digital Student (2007). Top 11 Reasons Why Students Dropout of College. Retrieved from <http://blog.gocollege.com/2007/11/23/reasons-why-college-dropouts-exist/>
- [14] Petersons (2015). Top 11 reasons why college students drop out: Don't Let it Happen to You. Retrieved from <https://www.petersons.com/blog/top-11-reasons-why-college-students-dropout-dont-let-it-happen-to-you/>