

Persistence of BS Agro-Fisheries Students towards Degree Completion

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Abstract

Using descriptive research design, total enumeration of college students uncovered factors that support/enhance and hinder their persistence towards degree completion of BS Agriculture and Fisheries (BS Agro-Fisheries) course. The study was conducted using researcher-made questionnaires which determine the student's demographic characteristics, and the factors that explain their persistence. Persistence factors were measured using perception-survey statements. Results identified the school- and classroom-related factors as support that enhances persistence of BS Agro-Fisheries students. Barriers to achieving their goals were reported as minimal by the students. On the other hand, statement that speaks to "negative" personal/individual experience of the students in the campus calls for another area that needs to be investigated. Results of this study suggested that the program should be prioritized by providing an educational environment with adequate, effective and accessible administrative and educational support services specific for the students' academic success.

Key words: agriculture; completion; degree; fisheries; persistence, state university.

1. Introduction

The Philippines is an agricultural country composed of 92.34 million people [1], with 3.56 million students enrolled in higher education programmes in 1,699 (88%) public and 224 (12%) private higher education institutions [2].

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Although the number of students attending universities continues to grow, improving graduation and completion rates remains a challenge.

Student persistence is one of the important issues facing Philippine higher education today. To clarify, persistence refers to the student's aspiration to complete a four-year bachelor's degree in agriculture and fisheries that is the BS Agro-Fisheries, the merging of two distinct fields into one degree.

In a predominantly agricultural country like the Philippines, there is a need for constant supply of well-trained, skilled and knowledgeable agriculture and fishery graduates to provide the manpower base for the implementation of the country's agricultural including fishery production and development programs.

While agriculture and fishery education has been recognized as strategic factor in boosting productive and human resource development in the Philippine agriculture and fisheries sector, it has failed to turn out sufficient number of competent graduates [3].

Commission on Higher Education [4] records show that there are slightly over 10,000 students graduated in agricultural, forestry, and fisheries, only two per cent in the overall discipline group in the Philippine higher education.

Table 1 shows the enrolment and graduates by discipline group in the Philippine higher education. As presented, agriculture and its related courses still lag far behind those of their allied degree programs being offered by the State Universities and Colleges all over the country.

Table 1: Higher education enrolment and graduates by discipline group, academic year 2010-2011 [5]

Discipline Group	Enrolment	Graduates
Agricultural, Forestry, and Fisheries	49,823	10,616
Engineering and Technology	629,157	93,578
Arts and Sciences	210,461	35,522
Education Science and Teacher Training	304,993	59,117
Medical and Allied	564,661	144,629
Business Administration and Related	672,130	100,107
Other Disciplines	191,524	30,949
Total	2,622,749	474,518

The author in [6] has noted the indifference of the youth in the countryside to continue the occupation of their parents. They still see agriculture as a career of last resort, a job for dummies. They prefer to work in the city. 'We have to shore up the diminishing enrolment in agriculture and related courses in higher education institutions and replace our ageing farmers with the youth who have new mindsets — open to new knowledge,

entrepreneurial and most of all, willing to stay in the farm’.

This issue puts the onus of providing successful, relevant agriculture and fishery educational experiences for students on the programs and institutions that recruit and train them [6].

The success of efforts to retain college students in agriculture and related courses is crucial to overcoming the barriers faced by these students in attaining degrees and entering the workforce.

Similar to what the Philippine government currently envisions on increasing the number of competent graduates of agriculture and its related programs, the Laguna State Polytechnic University Los Baños Campus has been focusing on recruiting college students to help with the diminishing enrolment in this degree course [7]. But then, recruiting is not always the problem. Many times the problem is on student persistence.

Table 2 shows the distribution of enrolment and graduates by degree programme at the Laguna State Polytechnic University Los Baños Campus.

After three decades of targeted recruitment efforts by the State University, entrance of college students into Agro-Fisheries degree programs has increased, but graduation rates, as reflected in the Commission on Higher Education records, still lag far behind those of their allied degree programs being offered by the State University.

Table 2: Distribution of enrolment and graduates by degree programme, academic year 2010-2011 [7]

Degree Programme	Enrolment	Graduates
Agriculture and Fisheries	114	4
Information Technology	631	67
Arts and Sciences	153	16
Education Science and Teacher Training	464	64
Nutrition and Dietetics	105	20
Management and Related	631	229
Total	2,098	400

Retaining a student is fundamental to the ability of an institution to carry out its mission. A high rate of attrition (the opposite of persistence) is not only a fiscal problem for schools, but a symbolic failure of an institution to achieve its purpose. Thus, it becomes important to understand and act on what research tells about student persistence into the next year level and to graduation.

Although preparation, ability, and motivation are important factors in student persistence they cannot explain all the reasons that students persist or drop out [8].

The author in [9] indicates that the lack of student persistence may be labelled the departure puzzle. Given the availability of numerous guides on the selection of colleges and universities by the parents, career counsellors and students and the enormous amount of attention that university officials focus upon the college selection process, it is puzzling that almost one-half of students entering two-year colleges and more than one-fourth of students entering four-year collegiate institutions leave these institutions at the end of their first year [10].

The purpose of the study reported in this paper was to bring to light factors that explain persistence of BS Agro-Fisheries students towards degree completion at the Laguna State Polytechnic University Los Baños Campus. It specifically determined the support that BS Agro-Fisheries students received in pursuing the degree; identified barriers that may keep BS Agro-Fisheries students from completing the degree; and recommended policies to improve persistence of BS Agro-Fisheries in the State University.

While exploring the factors that explain the academic persistence of college students, this study also served as a step toward understanding the mechanism through which the State University influences, and other factors that affect the persistence of BS Agro-Fisheries students towards degree completion.

1.2 Theoretical models of the study

The reasons that students persist became a major area of inquiry for education scholars beginning in the 1960s [9]. To give further elaboration on the issue, the following models present the factors related to student persistence.

Alexander Astin's input-environment-outcomes model explains the impact of various environmental experiences by determining whether students grow or change differently under varying environmental conditions. The consideration of input characteristics when assessing student retention helps to understand the influence of students' backgrounds and characteristics on their ability to persist. Environmental variables that might influence student success include: institutional characteristics, students' peer group, academic staff characteristics, curriculum, financial aid, major field of choice, place of residence, and student involvement; whereas, outcomes are the student's characteristics after exposure to the environment.

Vincent Tinto's theory of student departure states that, to persist, students need integration into formal (academic performance) and informal (academic staff interactions) academic systems and into formal (extracurricular activities) and informal (peer-group interactions) social systems. Tinto argues that the institution shares this responsibility for helping students achieve academic and social integration.

1.3 Conceptual Framework

To answer the call for a more comprehensive and integrated model for studying student persistence, the following conceptual framework was formulated by the researcher. This was based on the models of Astin and Tinto in [11].

The framework incorporates, in three sets of constructs, the wide array of factors that explain student persistence

(Figure 1). Persistence factors include student-related, school-related, and classroom-related factors. These student-related factors including the student background characteristics, academic preparation and performance, and career disposition shape students' subsequent college experiences, upon entering the university through their interactions with school-related factors such as the administrative, and educational support services and classroom-related factors constituting students' individual experiences towards academic staff traits and the entire curriculum. These factors support/enhance or hinder persistence of BS Agro-Fisheries students towards degree completion.

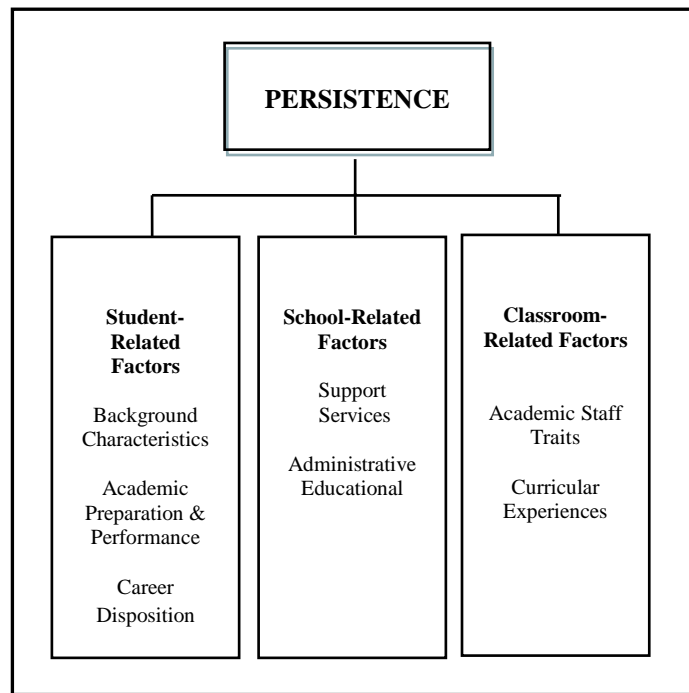


Figure 1: Conceptual framework of factors that explain persistence of BS Agro-Fisheries students

2. Methodology

A descriptive research design was utilized to identify factors that support/enhance or hinder persistence of BS Agro-Fisheries students towards degree completion.

The sample consisted of the total enumeration of all 35 BS Agro-Fisheries from first year to fourth year college students at the Laguna State Polytechnic University Los Baños for the second semester of the academic year 2011-2012.

The study was conducted using researcher-made questionnaires which determine the student's demographic characteristics, and the factors that explain their persistence. Persistence factors were measured using perception-survey statements. Factors that enhance/support student persistence were identified using four-point Likert scale ranging from "strongly disagree" to "strongly agree"; whereas factors that hinder student persistence were determined using three-point scale ranging from "not a barrier" to "great barrier".

The study considered the background characteristics of the student respondents, their individual experiences concerning faculty traits and the curriculum and their perception regarding administrative and educational support services that influence their persistence towards degree completion.

Confidentiality was addressed by assigning a code number to each student as they completed the survey and using only that code to indicate survey responses.

The study made use of the descriptive analysis (i.e., weighted means and standard deviations) to analyse student-, school-, and classroom-related factors.

The results of the survey provided a rich body of data on which to base conclusions about the factors that support/enhance or hinder persistence of BS Agro-Fisheries students towards degree completion.

3. Results and Discussions

This section presents the discussion of all data gathered which were organized according to the objectives of the study. Quantified data were tabulated, analysed and interpreted.

The collection of data on the factors that explain student persistence towards degree completion was done through survey questionnaires distributed to the respondents considered in the study. To realize the objectives of the study, the researcher utilized the descriptive method of analysis and for better understanding, the data are presented in tabular form and generalizations were developed to determine the factors that both support/enhance and hinder persistence of BS Agro-Fisheries students towards degree completion.

3.1. Source of support that enhance student persistence to degree completion

Students were asked to respond to a four-point Likert scale (4 = strongly agree to 1 = strongly disagree) to eighteen (18) statements concerning school-related and classroom-related support they had received based on their experiences which enhance their persistence towards completing a degree in BS Agro-Fisheries course.

Table 3 shows that BS Agro-Fisheries students of the Laguna State Polytechnic Los Baños Campus reported positive support based from their experiences on the campus in terms of providing them the opportunities to establish social networks, making them feel safe and secured as well as providing financial aid in their studies. These were the primary sources of support that enhance the persistence of BS Agro-Fisheries students towards completing their degree.

This finding is supported by a study conducted by a higher education consulting firm [12], who found that students, who feel welcome, know what's happening on campus, and feel that they belong are more likely to persist the following year. The author in [12] found that increased student satisfaction, particularly with the campus experience, can increase student persistence.

Students rated the statement, "I am able to enjoy my studies on this campus," as 2.20, indicating that students

may not have felt fully challenged and satisfied with their past and even current experiences within the school environment. This may influence 'negatively' their persistence towards completing a degree in Agro-Fisheries.

Issues related to course availability, content, and instruction affect a student's ability to persist; hence, institutional programs and services should have support mechanisms such as tutoring, mentoring, and career counselling to have positive effect on the student retention [13].

The significance of taking into account school-related factors equally with student-related factors and classroom-related factors is to underscore the importance of campus participation and knowledge in students' social and academic development. It is in fact the college that forms the foundation for college success. It is the institution that can identify and match the needs of individual students, a student cohort group, or the student body as a whole [13].

The standard deviation for the statement, 'I am able to avail financial aid in my studies' (0.77) indicates difference in the students' responses for this statement. For some of the student-respondents did not avail scholarship grants and other financial assistance offered by the campus.

In a review of research on the relationship between financial aid and persistence, the authors in [14] concluded that finance-related factors (student aid, tuition, and other costs, including living) explained about half of the variance in the persistence process.

3.2. Barriers to student persistence to degree completion

Students were asked to respond using a three-point scale (1 = great barrier, 2 = somewhat of a barrier, and 3 = not a barrier) to factors that may be perceived as barriers to their persistence towards degree completion. The findings in Table 4 revealed that the factors studied were not major barriers to BS Agro-Fisheries students in completing their degree. 'Lack of money for education' had the lowest mean (1.77). This means BS Agro-Fisheries student perceived 'lack of financial assistance' as a barrier to their persistence.

The author in [15] found that, to enhance student persistence, institutions must change their processes so that financial services, procedures for adding and changing courses and academic advice are easily available and offered in non-bureaucratic ways. Academic advising is one of the arenas through which a student has a chance to have quality interaction with a concerned person on campus, a primary factor affecting student persistence and retention [16].

Other factors related to student academic performance such as the statement 'I do not work hard' (1.99) as well as knowledge of career opportunities (2.09) indicate somewhat of a barrier to students' persistence.

As explained by the author in [17], persistence is influenced by a person's sense of self, specific expectations, and a sense of responsibility for one's successes and failures.

The other 10 factors related to academic preparation, self-confidence, home location, family responsibilities, and

parental support were not perceived as major barriers to the persistence of BS Agro-Fisheries students in completing the degree. The standard deviation for 'lack of money for education' was large (0.91) for the BS Agro-Fisheries students, indicating a big difference in their responses.

Table 3: Factors that enhance student persistence towards degree completion

SUPPORT	Mean	Standard Deviation
School-Related Factors		
I. Administrative Support Services		
1. There is a commitment to academic excellence on this campus.	3.37	0.49
2. This campus provides opportunities for students to establish social networks (e.g. clubs, sporting activities, etc.)	3.77	0.43
3. Students are made to feel welcome on this campus.	3.40	0.50
4. The campus is safe and secure for all students.	3.86	0.36
5. This campus shows concern for students as individuals.	2.54	0.51
II. Educational Support Services		
6. I am able to avail financial aid in my studies.	3.23	0.77
7. I am able to register for classes I need with few conflicts.	2.69	0.47
8. I am able to enjoy my studies on this campus.	2.20	0.76
9. I generally know what's happening on campus.	3.03	0.71
10. I am able to access on teacher-learning resources. (including facilities & equipments)	2.57	0.50
Classroom-Related Factors		
I. Faculty Traits		
11. Faculty are fair and unbiased in their treatment of individual students.	3.26	0.44
12. Faculty are approachable and available for academic discussions.	2.77	0.43
13. Faculty respect my thoughts.	3.43	0.50
14. Faculty are knowledgeable in their field.	3.20	0.41
II. Curricular Experiences		
15. The content of the courses within my major is valuable.	3.31	0.47
16. My courses help me understand my everyday life.	3.14	0.65
17. I experience quality teaching & manageable workloads.	3.20	0.72
18. I am able to experience intellectual growth here.	2.83	0.38
Scale: 1 = Strongly Disagree, 2 = Disagree, 3 = Agree, 4 = Strongly Agree		
n = 35		

4. Conclusions

Based from the results of the study, BS Agro-Fisheries students perceived that the environment provided by their schools was supportive of their educational and occupational aspirations. Barriers to achieving their goals were reported as minimal by the students. On the other hand, statement that speaks to “negative” personal/individual experience of the students in the campus calls for another area that needs to be investigated.

For if State Universities are to develop an educational environment for student success, academic and administrative staff must understand that preparation, ability, and motivation are only part of the persistence puzzle.

Table 4: Factors that hinder student persistence towards degree completion

BARRIERS	Mean	Standard Deviation
Student-Related Factors		
I. Background Characteristics		
1. I don't have enough money for education.	1.77	0.91
2. I am living in a rural area.	2.80	0.41
3. I have family or home responsibilities.	2.60	0.50
4. My parents disapprove of my goals.	2.94	0.24
II. Academic Preparation & Performance		
5. I can't get into school of my choice.	2.74	0.44
6. I didn't take the right courses.	2.51	0.51
7. I do not work hard.	1.94	0.91
8. I don't get high enough grades.	2.66	0.48
9. I am not good at school work.	2.31	0.76
10. I don't have the necessary skills.	2.80	0.41
III. Career Disposition		
11. Community does not provide enough jobs.	2.77	0.43
12. I don't know about career opportunities	2.09	0.89
13. I don't think I would be successful	2.51	0.51
14. Job I want doesn't pay enough	2.80	0.41
Scale: 1 = Great Barrier, 2 = Somewhat of a Barrier, 3 = Not a Barrier		
n = 35		

However, the conclusions reached in this study should not suggest that reenrolment or retention alone should be the goal of an institution for its students. For if retention alone becomes the goal, institutions will find themselves engaged in trying to hold students at all costs. Pressuring students to stay when it is not in their best

interests to do so is not only wrong morally but also counterproductive: it often results in an accelerated attrition rate [9].

Instead, the author argued, 'The more students learn, the more they sense they are finding and developing a talent, the more likely they are to persist; and when we get student success, satisfaction, and learning together, persistence is the outcome' (p. 1). The keys to persistence, then, are efforts on the part of institutions to promote the highest-quality education they can. As the author argues, student persistence will follow.

5. Recommendations

State Universities like the Laguna State Polytechnic University have the opportunity to make positive changes in persistence these special populations of BS Agro-Fisheries students. Several areas point toward the potential to make an impact. The following section presents some of the suggested policies for improving the institutional programs, curricular offerings, services and practices of the State University:

5.1. Orientation programs

Orientation programs should be developed to emphasize agricultural and fisheries careers, showing the connection between educational preparation and agricultural leadership, business, and scientific occupations [9]. Starting with the local community, farm and town resources can be activated to provide experiences for students beyond their home location. For example, town students can be placed on farms and farm students can be placed in town businesses through supervised agricultural experience programs. In addition, opportunities for rural students in agricultural and fishery businesses located in nearby larger towns and cities may be possible through job shadowing, internships, and other supervised occupational experience programs.

5.1.1 Academic coaching programs

Faculty members need to move beyond voicing support of students in the classroom to putting into practice teaching practices and interactions that foster success in these students. Through the practice of academic coaching, students feel supported by the instructor and learn to support one another. The main idea of academic coaching is for the instructor to switch from a dispassionate, disinterested lecturer to an engaged, interested academic coach who is enthusiastic, proactive, and intentional about student success. The most important characteristic of academic coaching is to seek and develop a relationship with students. The more teachers learn and know about their students, the better they are able to meet their educational and academic needs.

Early identification of struggling students provides a way to help those who need it, at the appropriate time. Academic coaches take this role seriously, to intervene with feedback that allows the student to move toward positive outcomes. They also provide effective provision of help for students to enhance their learning, and learning outcomes, recognizing that not all students are equipped with academic, study, and social skills at the college level. They could usefully make available information on academic skills to students. They can also motivate students with changes in rules, regulations, and course requirements to better meet student expectations and needs. It is crucial however, to maintain rigor while adopting these teaching practices.

Regarding faculty and staff development, it is increasingly clear that faculty actions, especially in the classroom, are critical to institutional efforts to increase student persistence. Thus, the administration should see to it that faculty be given proper training regarding academic coaching.

5.2. Academic support services.

Another concept that is related to curriculum and instruction is the provision for LSPU-LB's academic support services particularly the provision of tutoring programs. The umbrella classification of this academic support was one of the main categories of practices responsible for the greatest contribution to retention in four-year public institutions, according to ACT survey [18; 19]. Thus, learning support includes items such as comprehensive learning centres and other similar resources.

Rural schools, like the Laguna State Polytechnic Los Baños Campus commonly serve both town and farm students, providing both educational challenges and opportunities. Challenges include meeting the needs of the students and the community and at the same time introducing students to career paths not available locally. Many times both educational and occupational aspirations of BS Agro-Fisheries students must be achieved beyond the local community. Matriculation of students can be further enhanced through the development of partnerships between rural schools and post-secondary institutions. Likewise, partnerships between rural schools and businesses in larger towns and cities can be developed to provide expanded educational opportunities for students.

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