

Student Perceptions on Factors Affecting Academic Performance in a Tertiary Institution in Manila, Philippines

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Abstract

Evaluation of how the students perceive the factors that affect their own academic performance is important to ensure that the learning goals of any college program are met. Such self-perceptions may guide educators in choosing interventions that need to be implemented to ensure academic success. This study was conducted to identify students' perceptions on the factors affecting academic performance. The study utilized a survey instrument administered to all 108 students enrolled in the BS Pharmacy program. The mean age of the respondents was 19.82 ± 0.18 . Majority were female (78.07 %). The students ranked highest on academic competence (4.11 ± 0.49) and strategic studying (3.93 ± 0.94). The lowest scores were on the test anxiety (3.11 ± 0.51) and test competence (3.125 ± 0.25) domains. The results indicate that while the students use strategic studying techniques and can, to some degree, manage the Pharmacy course load, their academic success is hampered by poor test-taking skills. Educators may explore test counselling to help improve academic performance.

Introduction

The current changes redefining the landscape of tertiary education in the Philippines warrant a re-assessment of desired student performance outcomes in many college programs. As such, Pharmacy educators need to formulate strategies to ensure that these desired program outcomes are met. In order for the educators to come up with the strategies, it is important to evaluate the possible factors that may affect academic performance of the students to create a nurturing academic environment.

Academic performance refers to how students deal with their studies and how they accomplish different tasks given to them by their teachers (Banquil *et al*, 2009). It also refers on how students deal with their studies and how they cope with different factors affecting their performance. Academic performance can also refer to "how well a student meets standards set

out by local government and the institution itself".

Sansgiry *et al*, 2006 cites five domains that may affect academic performance. These are test anxiety, time management, test competence, academic competence and study techniques. In the study of Sansgiry *et al*, test anxiety refers to the reaction to stimuli associated with are associated with the student's experience of testing or evaluative situations. Time management was defined as a cluster of behavioural skills that are important in the organization of study/course load. Test competence refers to how students cope with the amount of study material for their exams. Academic competence, on the other hand, was said to be associated with the students' ability to manage their study load and evaluates whether the students are able to manage the study material in the curriculum. It also refers to the proficiency of the students with respect to the

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content taught during courses over the past academic year and their ability to understand the course material. Strategic studying techniques are defined as the knowledge and application of effective study skills or techniques by students.

The study identified the students' self-perceptions with respect to the five domains that may affect academic performance in order to obtain an initial profile of the students with respect to academic performance. It is important to determine the students' perceptions such that academicians may develop strategies that will help facilitate and guide each student's learning process to meet the desired program outcomes as espoused by an outcomes-based education.

Methodology

The study utilized a cross-sectional design utilizing a survey instrument administered to all 108 3rd year to 4th year students enrolled in the Bachelor of Science in Pharmacy program in Emilio Aguinaldo College School of Pharmacy, a tertiary institution in Manila, Philippines during the first semester academic year 2015-2016. The BS Pharmacy program was given government recognition in 1983. The school had a population of 246 students from first to fourth year during the first semester of academic year 2015-2016.

The survey instrument utilized the domains affecting academic performance previously validated in the study of Sansgiry *et al* 2006. Study participation was voluntary. Ethical clearance was obtained from the institution's Center for Research and Development. The instrument was coded and administered by a disinterested party who is not a faculty member in the School of Pharmacy to avoid bias and to ensure confidentiality. The researchers were blinded as to the identity of the respondents. Study instrument consisted of 17 questions about the respondent's demographics and 29 items about the five domains: test anxiety, academic competence, test competence, time management and strategic studying. Students' self-perceptions were measured using a 5-point Likert scale where 1= strongly agree, 2= agree, 3 = neutral, 4 = disagree, 5 = strongly disagree. Data was coded and analysed using descriptive analyses and ANOVA in SPSS 21.

Results and Discussion

Out of one hundred eight students enrolled in the BS Pharmacy program in the First Semester of Academic Year 2015-2016, one hundred five completed the survey instrument (response rate

= 97.22%). The mean General Weighed Average (GWA) of all respondents was 3.49 ± 0.18 which corresponds to a passing mark.

The mean age of the respondents is 19.82 ± 0.18 . Majority were female (78.07%). Most of the respondents' first choice in choosing their college course is Pharmacy (39.05%). More than half (54.77%) of the respondents said that it is their parent's choice to undergo the BS Pharmacy program. Majority of the respondents are currently living with (64.76%) and are supported financially (91.43%) and emotionally (84.76%) by their family. A large number of the respondents came from urban (63.81%) private (65.71%) high schools prior to their enrolment in the BS Pharmacy program. Most students report that the type of transportation and the proximity of their residence to the school do not affect their academic performance (Table 1).

Student learning is dependent on situational factors such as course structure, content and learners' characteristics (Persky *et al*, 2015). The main responsibility of an educator is to facilitate and engage students' learning by taking all these factors into consideration. The five domains described by Sansgiry *et al*. provide a measure on how students perceive the various factors that may affect their academic performance. These domains are: test anxiety, academic competence, test competence, strategic studying and time management. The mean score for test anxiety was 3.11 ± 0.51 . Most of the respondents (84.75%) admit to being worried about taking examinations. The students (83.81%) report anxiety even if they are well-prepared for the material covered in the exams. Respondents have some tendency to exhibit manifestations of test anxiety including nervousness (76.19%), perspiration (63.81%), thinking of things not related to the study material (61.91%), panic (69.52), upset stomach (55.24%), increased heartbeats (69.53%) and depression after taking exams (78.09%). Respondents who are in their final year of the program reported a higher test anxiety score (3.196 ± 1.13) than their third year counterparts which may be attributed to the higher number of exams they have taken over a number of years. There was no significant difference ($p > 0.05$) in the test anxiety levels between the third year and fourth year students (Table 2). Literature suggests that test anxiety can have detrimental effects on academic

Table 1: Demographics of the Respondents, by Year Enrolled

	Third Year N=57	Fourth Year N=48	Overall N=105
Age	18.56±0.073	21.23±0.24	19.82±0.18
Gender, %			
Female	89.47	66.67	78.07
Male	10.53	33.33	21.93
First Choice of College Course,%			
Pharmacy	35.09	22.92	39.05
Nursing	19.30	6.25	13.33
Accountancy	8.77	8.33	8.57
HRM/Culinary Arts	5.26	6.25	5.71
Motivation to enter Pharmacy school, %			
Family wish	49.12	60.42	54.77
Personal wish	38.6	29.17	33.89
Peer recommendation	10.53	2.08	6.31
Others	1.75	8.33	5.04
Primary means of financial support, %			
Family	77.19	91.23	91.43
Self-support	3.51	2.08	2.86
Relatives	3.51	8.33	5.71
Means of Emotional Support, %			
Family	89.47	79.17	84.76
Friends outside school	43.86	41.67	42.86
Classmates	36.84	47.92	41.9
Relatives	36.84	31.25	34.29
Boyfriend/ girlfriend	28.07	29.17	28.57
Faculty	15.79	8.33	12.38
Spiritual advisor	14.04	10.42	12.38
School guidance counsellor	1.75	2.08	1.90
Currently living with			
Family (parents and siblings)	63.2	66.67	64.76
Relatives as guardians	12.28	10.42	11.43
Living alone	10.53	8.33	9.52
Siblings only	7.02	10.42	8.57
Friends	7.02	4.17	5.71
Type of High School Institution			
Private	64.91	66.67	65.71
Public	35.09	33.33	34.29
Place of High School Institution			
Urban	70.18	56.25	63.81
Rural	29.82	43.75	36.20
Does your type of transportation affect you academically			
No	45.61	43.75	44.76
Yes, positively	28.07	33.33	30.48
Yes, negatively	26.32	16.67	21.90
Does the proximity of your residence affect you academically?			
No	54.39	50	
Yes, positively	24.56	35.42	
Yes, negatively	21.05	14.58	

Table 2: Student perceptions on Test Anxiety

Variable, %	Not at all typical of me	Not very typical of me	Somewhat typical of me	Fairly typical of me	Very much typical of me	Mean (SD)
Failure to perform better	6.67	16.19	49.52	17.14	10.48	2.92 (1.12)
Nervousness	8.57	15.24	43.81	22.86	9.52	3.04 (1.17)
Perspiration	17.14	19.05	35.24	17.14	11.43	2.90 (1.21)
Task-irrelevant cognition	18.10	20.95	30.48	20.95	10.48	2.71 (1.29)
Panicky	8.57	21.90	32.38	24.76	12.38	3.04 (1.32)

Upset stomach	22.86	22.86	29.52	15.24	10.48	2.60 (1.35)
Increased heartbeats	10.48	20.00	30.48	20.00	19.05	3.10 (1.31)
Depression	5.71	16.19	37.14	20.95	20.00	3.35 (1.14)
Worry	3.81	11.43	39.04	17.14	28.57	3.67 (1.15)
Anxious even when wellprepared	6.67	9.52	32.38	23.81	27.62	3.46 (1.30)

Table 3: Student perceptions on Academic Competence

Variable, %	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Mean (SD)
Managing course load*	6.67	20.95	67.62	2.86	1.90	3.63 (0.76)
Comprehension*	2.86	34.29	54.29	8.57	0.00	3.60 (0.68)
Interest*	24.76	33.33	38.1	1.90	1.90	4.42 (0.58)
Enjoyment*	21.90	31.43	42.86	1.90	1.90	4.21 (0.85)
Efforts*	33.33	35.24	21.90	6.67	2.86	4.73 (0.45)

*Items were reverse coded during analysis

Table 4: Student perceptions on Test Competence

Variable, %	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Mean (SD)
Easily manage study material*	6.67	20.95	61.90	8.57	1.90	3.27(0.82)
Test preparation*	4.76	7.62	49.52	25.71	12.38	2.88(0.61)
Coping with examination tension*	3.81	10.48	57.14	23.81	4.76	2.96(0.54)
Difficulty in managing study material	7.61	27.61	49.52	12.38	2.86	3.40(0.61)

*Items were reverse coded during analysis

Table 5: Student perceptions on Time Management

Variable, %	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Mean (SD)
Difficulty in combining study and leisure time	11.43	20.95	52.38	11.43	3.81	3.02 (0.98)
Studying regularly	11.43	30.48	40.95	14.29	2.86	3.10 (0.99)
Cramming for examinations	22.86	27.62	30.48	15.24	3.81	3.02 (1.08)
Organization*	1.90	16.20	61.90	15.24	4.76	3.35 (0.73)
Test preparation*	7.62	20.95	53.33	15.24	2.86	3.46 (0.62)

*Items were reverse coded during analysis

Table 6: Student perceptions on Strategic Studying

Variable, %	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Mean (SD)
Judgment of test questions*	16.19	27.62	47.62	6.67	1.90	3.77 (0.93)
Advance planning*	6.67	24.76	58.10	7.62	2.86	3.65 (0.73)
Review*	10.48	31.43	36.19	16.19	5.71	3.79 (0.90)
Knowledge assessment*	13.33	28.57	40.00	16.19	1.90	3.94 (0.89)
Summarize*	23.81	28.57	30.48	15.24	1.90	4.52 (0.50)

*Items were reverse coded during analysis

Table 7: Summary of Mean Scores on the Five Domains of Academic Performance

Domains	Overall Score
Test Anxiety	3.11 ±0.51
Academic Competence	4.11±0.49
Test Competence	3.125±0.25
Time Management	3.19±0.20
Strategic Studying	3.93±0.94

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performance (Shapiro, 2014, Alam, 2013, Chapell, 2005). The high percentage of students who perceive that they are experiencing test anxiety should prompt the faculty of the School of Pharmacy to create appropriate interventions and supportive strategies to improve the students' academic performance and overall learning experience. Academic advising, as advocated by the study of Sariem, 2012 and 2014, may "help the students to adjust to the academic environment, encourage them to have good grades and in general, help them make informed choices."

In addition to the low scores in test anxiety, the students also scored minimally in test competence. The mean score for test competence was 3.125 ± 0.25 . More than one-fourth of the respondents (28.57%) admit to having problems in coping with examination tension and are finding it difficult to prepare for the examinations (38.09%). From among the items in test competence, mean scores for test preparation and coping with exams are the lowest, 2.88 ± 0.61 and 2.96 ± 0.54 respectively. Similar with the other domains, there was no significant difference between the test competence scores of the third-year and fourth-year students. Sansgiry points out in their study that test competence is the single most important factor in determining academic performance. Sansgiry's study notes that students who have difficulty in coping and managing the study material will have a lower GPA (or GWA). Future studies that will correlate the respondents' GWA with their test competence skills need to be undertaken. However, in spite of the lack of correlation, clearly, the results of this study suggest that educators need to improve the students' test-taking skills and behaviors, both to improve test competencies and avoid test anxiety. Furthermore, as Sansgiry's study also recommends and as espoused by the principles of Outcomes-based Education, faculty members should evaluate the amount of study material addressed by the examinations. Educators need to avoid unnecessary amount of study material and utilize exams to promote learning of concepts rather than rote memorization (Table 4).

Time management, as reported by previous studies, is also an important predictor of academic achievement (Congdon et al, 2014, Nadinloyi et al, 2013). The mean score of the

respondents for time management was 3.19 ± 0.20 . Many students in both year levels agreed that they find it difficult to combine both their study and leisure time (32.38%) and to study regularly (41.91%). This could contribute and add to their stress during examinations. Half of the respondents (50.48%) admitted that they end up cramming for their exams. There was no significant difference between both groups of students. Faculty members may consider allotting a separate course meeting devoted as a review session for examinations. The department of the School of Pharmacy may also consider assigning a core group of student facilitators or coaches who can teach their classmates. The interventions of the Center for Guidance and Counseling may also help in offering counsel to the students, particularly those who also work part-time, who experience stress in time management (Table 5).

Mean scores on strategic studying was 3.93 ± 0.94 , indicating that the students have utilized study techniques in helping them cope with the course material. Almost half of the respondents (43.81%) try to identify what questions might be asked during exams and how questions will be formulated, review the course material with their classmates (41.91%) and try to test their knowledge by mock examinations (41.90%). More than half of the students (52.38%) try to summarize the study material using their own words. There is no significant difference between the mean scores of both third-year and fourth-year students (Table 6). In the early formative years in the Pharmacy program, the department of the School of Pharmacy may conduct workshops to encourage the students to form effective study habits since literature shows that strategic studying techniques contributes to academic success (Lay C and Schouwenburg H, 1993)

The study is a preliminary survey on the students' perceptions on the five domains affecting academic performance. The students' GWA was not correlated with the factors since it was not possible to trace the individual questionnaires and correlate their individual GWA due to blinding. Blinding was used in order to avoid bias in the students' answers. Generalizability is also the main limitation of this study as differences in demographics, location, content delivery systems, student characteristics will vary in another university (Table 7).

Conclusion

In order to ensure students' learning and to facilitate a positive learning experience, periodic evaluation of the different factors affecting academic performance needs to be conducted. This study shows that while the students utilize strategic studying techniques and some degree of academic competence, test anxiety and test competence hampers their efforts towards academic success. Remedial measures, faculty interventions, academic advising and counselling mechanisms need to be in place to help the students cope with the demands of Pharmacy education.

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