Precursors of Academic Performance of Graduate Students in a State College in Northern Leyte, Philippines

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ABSTRACT

This study examined the various factors that could explain the academic performance of graduate students. The findings of which may provide insights to practitioners in graduate education that would help them better understand the various factors that possibly affect students' academic performance. The study was conducted in a State College in the Northern part of Leyte, Philippines, descriptive research in nature, utilizing a single cross-section research design with data collected from a stratified randomly selected participants coming from the identified study population, the graduate students. The researcher utilized survey questionnaires in gathering relevant data, using appropriate statistical measures such as mean, standard deviation, Pearson r, t-test, and stepwise regression analysis. Data analysis results indicated significant correlations between academic performance and each of the following factors: age, civil status, graduate school readiness, submission of coursework practices, and time management skills. Overall results of the analysis highlighted time management skills, submission of coursework practices, and graduate school readiness as significant precursors of the academic performance of graduate students.

Introduction

Numerous researches have been conducted in the area of students' academic performance, including graduate education level. Researchers' investigations in this field revealed that academic performance is likely influenced by multiple factors (Oreški, Hajdin & Kliček, 2016). These factors, according to Meerah (2010), Wareing (2009), and Hadi (2019), included students' personal, financial, institutional, supervisor, and non-academic related factors. However, one of the limitations with this argument, as pointed out by Hadi (2019) is, the aforementioned factors may have been found critical to the performance of the graduate students, yet, these did not explain to what extent they are critical to the students' performance, as well as the degree of their importance.

Other factors in the same area were also investigated included but not limited to demographics, learning and study strategies, academic preparation, work-related factors, previous schooling, self-motivation of students, student readiness, entry qualification of students (Garcia, 2017; Mbogo, 2016; Ali et al., 2013; Hagedorn and Ren (2012); and Suja, Yacob & Mohammed (2011); and that preparedness for graduate school (Huss et al., 2002) is one important factor to consider. Similarly, studies related to the importance of previous GPA (Salaiman and Mohezar, 2006; Klomegah, 2007) course prerequisites (Tai et al., 2005), gender (Graunke and Woosley, 2005; Salaiman and Mohezar, 2006); time management (Miqdadi et al.,

2014; Alshaya et al., 2016), and submission of coursework practices (Abiddin et al., 2011) were also investigated which pointed out connections with students' academic success.

The many challenges that graduate students face while pursuing their graduate careers are acknowledged by the Graduate School of the University of Washington <https://bit.ly/32V3jP1>. One of which is balancing work and lifestyle. While Mackinnon (2004) emphasizes the influence of personal, professional, and organizational factors on graduate experience, pressures of graduate school, the student needs to balance in their graduate career, and responsibilities were also given equal importance with other factors in conjunction with the graduate school accomplishments.

On the other hand, there may be various educational experiences that influence the graduate school-related accomplishments (e.g., publications or high GPA) and skills, however a solid understanding of the accomplishments and skills associated with graduate school performance, like, information regarding students' perceived preparation for graduate school still needs further investigation. Questions such as, are the graduate students aware of the fact that preparedness or readiness for graduate school is an important factor for them to succeed in their graduate school journey? Students' preparedness can be viewed from the perspective of Bandura's theory regarding self-efficacy expectations or beliefs about one's ability to succeed at a given task or behavior (Huss et al., 2002). They emphasized that researches have shown

that both general academic self-efficacy and domain-specific academic efficacy predict academic persistence and performance.

Lefrancois (1983) presented various findings showing how intelligence is correlated with age. Some viewed that intelligence declines with age yet, others did not. He concluded that most intellectual functions decline with age.

Likewise, time management, assignment, or coursework submission are also considered as important life skills that students are expected to acquire while in school (Keith and Garcia, 2009). The authors stipulated that students do not initially manage their time very well and use deadlines to control what they do and when.

As generally conceived, students who showed better or higher performance in any of the identified factors also perform better in their respective academic degree levels. However, the utility of these studies may lie in the need to undertake corrective measures that improve the academic performance of graduate students.

The Palompon Institute of Technology (PIT) is one of the State Universities and Colleges (SUCs) in the country that offers graduate education, both masters and doctoral programs. PIT's Graduate Studies offers graduate teacher education and management related programs to cater to the needs of the professionals in the locality, including nearby areas. Generally, the applicants to the graduate programs have shown varied academic backgrounds such as baccalaureate degrees, the field of specialization, work experience, abilities, and other attributes unique to each individual. To determine whether student applicants are ready to cope with the graduate tasks and demands, the College imposed admission requirements, such as written entrance examination and interview, in addition to other requirements specified in the College Academic Regulation Manual. Exemptions of such requirements are likewise granted to applicants with honor degrees and those who exhibit exemplary abilities and experience in relevant areas manifested during preliminary interviews.

On the other hand, despite the entry qualification requirements and other policies set by the College, problems related to students' academic performance have been observed, for example, students' taking for granted the school's class attendance policy, tardiness in attending classes, and the late submission of course requirements that usually results to obtaining incomplete markings. These situations encouraged the researcher to examine the presumed precursors of academic performance, hence conducting this study.

Further, the current study is seen to be important because this would provide preliminary awareness among the graduate students themselves, and those involved in the graduate education or those who spark interest for a further probe on improving graduate programs, in which all of these would possibly be used to producing better graduates. This can also provide insights and beneficial inputs to policy decision-makers of the College and other Higher Education Institutions offering graduate programs.

Theoretical/Conceptual Framework

The theoretic foundation of this study is grounded on two frameworks, the Goal theory and that of Walberg's.

The Goal theory which Martin and Dowson (2009) affirm focused on the meaning students attach to their achievement and the significance of their actions. This theory suggests that students tend to be in a better position in making sense of their engagement at university once they are aware of the varying factors that influence their academic performance. Walberg's theory of educational productivity is one of the few empirically tested theories that identified key variables that affect student outcomes. Walberg specifies that *student learning characteristics (i.e., social, behavioral, motivational, affective, cognitive, and metacognitive) are the set of variables with the most potential for a modification that could, in turn, significantly and positively affect student outcomes* (DiPerna et al., cited in McGrew, 2008). More recently, Zins, Weissberg, Wang, and Walberg, (cited in McGrew, 2008), demonstrated the importance of the domains of motivational orientations, self-regulated learning strategies, and social/interpersonal abilities in facilitating academic performance. Zins et al. further reported that students who became more self-aware and confident regarding their learning abilities, including those who were more motivated, who set learning goals, and who were organized in their approach to work (self-regulated learning) performed better in school than those who do not. Investigated also with Walberg's Goal Theory, are the connections between the presumed precursors and students' academic performance.
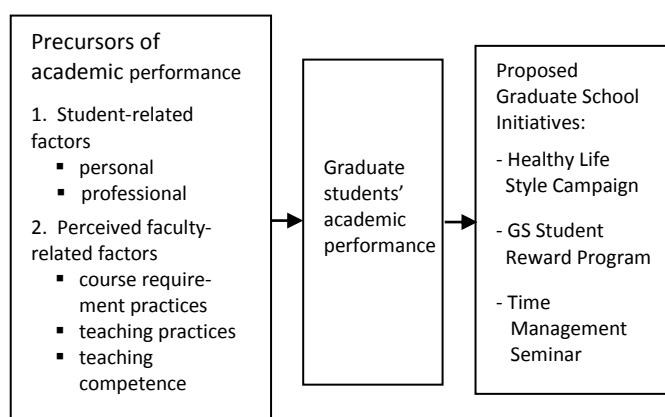

Precursors of academic performance

1. Student-related factors
   - personal
   - professional

2. Perceived faculty-related factors
   - course require-ment practices
   - teaching practices
   - teaching competence

Graduate students' academic performance

Proposed Graduate School Initiatives:
- Healthy Life Style Campaign
- GS Student Reward Program
- Time Management Seminar

Figure 1. Conceptual framework of the study

Figure 1 provides the conceptual framework of the study. It shows the academic performance of graduate students as the dependent variable which is presumably influenced by some identified factors. These include student-related factors and perceived faculty-related factors. More specifically, the student factors are categorized into personal and professional factors. The student's personal factors include demographics, which takes accounts of age, sex, and civil status. Other personal factors include graduate school readiness, attitude towards class attendance policy, and submission of coursework/course requirement practices. All these are believed to influence the academic performance of graduate students.

Objectives of the Study

The main objective of this study was to examine the various factors that could explain the academic performance of graduate students. Results of which may provide inputs to practitioners in advanced education to better understand and support graduate students and likewise improve the degree programs offered.

Specifically, the study sought to statistically determine which of the identified factors significantly influence graduate students' academic performance - the student or faculty related factors. The student-related factors included personal factors (age, civil status, graduate school readiness, attitude towards class attendance policy, and coursework submission practices), and professional factors (degree of relatedness of the students' baccalaureate and graduate program pursued, career aspirations, and time management skills). The faculty-related factors, on the other hand, assessed students' perception of the practices of their respective faculty in giving coursework, teaching practices, and teaching competencies. Relationships between identified dependent and independent variables were quantitatively examined, focusing on identifying the significant precursors of academic performance.

Research Methodology

The study utilized a single cross-section survey research design that involved collecting information at a single point in time from a sample selected to represent the total population. It also concerns with determining the degree to which the desired objective is attained as a result of a planned program, provides a causal explanation to phenomena, and forecasts or predicts future events or behavior of people or events (Polland, 2005). The study was conducted at the College of Graduate Studies of the Palompon Institute of Technology, Palompon, Leyte, Philippines. The

respondents were graduate master's students who were enrolled during the SY 2017 – 2018 and SY 2018 – 2019. Samples were taken from the said population group utilizing a stratified sampling technique. Relevant data were gathered using questionnaires adapted from previous studies.

Part I of the instrument solicits relevant background information of the students such as age, sex, civil status, degree pursued, job, and current position; Part II consists of seven (7) sets of questionnaires comprising of the following: a) the Graduate School Student Readiness consisting of 12 items, patterned from the questionnaire developed by Center for Teaching Excellence, University of Waterloo (*Independent Studies: Readiness to Learn (n.d.)*; b) students' attitude toward class attendance policy with eight (8) items from the questionnaire used by Totten and Nguyen (2016); (c) a 12-item likert type questionnaire on students' practices in submitting course requirements; d) a 24 – item career aspiration questionnaire adapted to determine the students' career aspirations from the Counseling Psychology Research Center available online at http://counselingpsychologyresearch.weebly.com/career-aspiration-scale---revised.html; (e) a 25-item time management assessment questionnaire adopted from Alshaya (2016); (f) faculty practices in giving coursework/course questionnaire; g) a checklist on the perceived teaching practices of the faculty consisting of twenty (20) teaching practices, patterned from Ramos (2015); and (h) a questionnaire that assesses the teaching skills and competencies of the graduate faculty. Included in this list are the fifteen (15) most-valued teaching skills and competencies of a teacher, patterned from the School and Teaching Practices (United Nations Educational, Scientific and Cultural Organization, 2016). The questionnaire is a 3-point scale ranging from 1 – below expectations, 3 – meets expectations, and 5 – exceeds expectations.

The questionnaires were reviewed and commented on the survey construction, wording format, and question flow to ensure clarity of its content. A pilot test was conducted to make sure that the participants would be able to understand the statements and for the researcher to determine the right time allocation when administering them. On the other hand, the academic performance of the students was measured on the basis of their grades earned during the specified study time frame.

A total of 100 sets of questionnaires were distributed to the randomly selected graduate students. The researcher personally administered the questionnaires to the students and asked them to return the filled-out questionnaires anonymously. Of the total 100 questionnaires, only 93 were returned, and 15 of

which were not filled out and thus discarded. Ethics protocols were observed by the researcher by securing first permission to conduct the study from the Institute's Research Ethics Committee. The participants were likewise informed that their participation in this research was purely voluntary and that the data gathered from them would be treated with the utmost confidentiality.

The data gathered were subjected to statistical analysis using the statistical software utilizing statistical measures such as mean, standard deviation, Pearson r, and stepwise regression analysis specifically performed to determine the degree of influence of the identified independent factors (precursors) on the students' academic performance.

Results and Discussion

This section presents the data analysis results of the study, utilizing the descriptive and inferential analysis to describe the distribution of the various characteristics of study participants and the relationships of the identified independent and dependent variables.

Students' Personal Factors. The students' personal factors include students' demographics (age, sex, and civil status), graduate school readiness, attitude towards class attendance policy, and coursework submission practices. Table 1 presents the demographic profile of the students across the academic performance. Academic performance of various categories/groups are likewise presented to draw a clear idea of whether or not the said categories have something to do with the students' academic performance.

Table 1.
Students' Personal Factors and Academic Performance

Personal factors	Academic Performance		
	N	%	Mean
Age			
≤ 25 years old	30	37.2	1.27
26 - 30	26	33.3	1.28
31 - 35	10	12.8	1.42
36 - 40	10	12.8	1.41
> 40 years old	2	3.9	1.34
Mean age = 28.60			
Sex			
Male	20	25.6	1.35
Female	58	74.4	1.34
Civil Status			
Single	42	53.8	1.33
Married	33	42.3	1.50
Separated/ widowed	3	3.9	1.46

As shown, the majority (70%) of the study respondents are young, aging 30 years and below, while the remaining 30% are above 30 years old. Overall, the study sample revealed a mean age of 28.60 years. As to sex, about 75% of the study participants are female, and 25% are males. As to civil status, 51.3% are single, 44.8% are married, and about 4% are separated and/or widowed. This result reveals that although the present study sample has varied demographic characteristics however, their academic performances are consistent as indicated in their mean grade ranging from 1.25 to 1.49 with a very satisfactory level. This implies that the varying groups do not have anything to do with academic performance.

Other Personal Factors. Considered also in this study are other personal factors of graduate students. This includes graduate school readiness, attitude toward attendance policy and submission of coursework practices. As shown, the study participants described themselves as *ready* in pursuing graduate school work (*Mean = 46.10, SD = 6.39*); they have favorable attitude toward college attendance policy (*Mean = 29.85, SD = 2.94*); and have a very good coursework submission practices (*M = 47.10, SD = 8.37*). Contrary to issues heard and observed in the Graduate School, findings indicate that the present sample have positive outlook on matters related to their being ready to face graduate school challenges, attitude toward school attendance policy and course requirement submission practices.

Table 2.
Students' Other Personal Factors

Other Personal Factors	Mean	SD	Interpretation
Graduate school readiness	46.10	6.39	Ready
Attitude toward attendance policy	29.85	2.94	Favorable
Coursework submission practices	47.10	8.37	Very Good

Professional Factors. Summarized in this section are the findings of various professional factors of student participants. This includes students' nature of work/position, relatedness between baccalaureate and graduate degree pursued, and career aspiration. As to the nature of work/position, Table 3 reveals that the greatest bulk of the present sample is teachers (73%),

the majority of them are holding teaching positions at the Department of Education, the rest indicated that they are into the non-teaching field, e. g. office/school head (6%), employee (18%), and a meager number are engaged in self-employment (3%).

Table 3.
Students' Nature of Work/Position and Academic Performance

Nature of Work/Position	N	%	Academic Performance	
			Mean	SD
Administrative/ Supervisory	5	6	1.24	0.11
Teaching	57	73	1.36	0.14
Office work (Non-teaching)	14	18	1.38	0.14
Self-employed	2	3	1.32	0.03
Total	78	100	1.35	0.12

Examining the academic performance of the various groups, indicated consistent mean ratings ranging from 1.24 to 1.38). Although a slight difference was observed among indicated ratings, yet data show that those holding managerial positions or designated as school head demonstrate higher mean academic performance (*Mean = 1.24, SD = 0.11*) than the other groups indicating academic mean grades of 1.32 to 1.38. This result contradicts on issues about people holding administrative/managerial positions are believed to be very busy and thus do not have much time to attend to other things, e. g. graduate schooling is contradicted.

As to other factors presumed to influence students' academic performance, descriptive statistics results are presented in Table 4. Findings revealed that on the whole, the student study participants pursued graduate school degrees that are very much related to their respective bachelor's degree (*M = 2.60, SD = 0.59*). Such a result could be attributed to the fact that the graduate school program advisers have successfully implemented its pre-admission process as stipulated in the Graduate School Manual of Academic Regulations. That is, '*any applicant seeking admission to a master's program must have the relevant baccalaureate degree . . .*' (CAEd Manual of Academic Regulations (2009) done with the guidance of the program adviser.

In terms of students' career aspirations, the overall result reveals that the sample study participants have moderate career aspirations (*M = 72.21, SD = 15.60*). This moderate level of career aspiration result does not mean that the present sample does not aspire for better positions in the future. It should be emphasized that a

number of them revealed to aspire leadership positions in the future, yet, somehow, some do not have any plans of attaining leadership status, thus resulted in a moderate level of career aspirations.

One aspect examined in this study is students' time management skills. Findings revealed that the population study sample indicated very high time management skills (*M = 36.05, SD = 5.90*). This indicates that the graduate students can manage their time well despite the many course requirements they need to comply with, including the complexity of tasks they are facing in their work; most importantly, family responsibilities, which is undeniably everyone's concern and priority.

Table 4.
Other Professional Factors

Other Professional Factors	Mean	SD	Interpretation
Degree Relatedness	2.60	0.59	Very much related
Career Aspiration	72.21	15.60	Moderate
Time Management Skills	36.05	5.90	Very Good

Perceived Faculty-related Factors. Another set of presumed precursors of students' academic performance is the perceived faculty-related factors comprising of faculty practices in giving coursework/requirements, teaching practices, and teaching competence presented in Table 5.

As shown, the present sample perceived that the faculty have good practices in giving coursework/requirements (*M = 34.78, SD = 3.83*).

Table 5.
Perceived Faculty-related Factors

Perceived Faculty-related Factors	Mean	SD	Interpretation
Practices in giving course requirements	34.78	3.83	Very Good
Teaching practices	11.71	4.70	Very Good
Teaching competence	92.10	1.12	Competent

This result is inconsistent with the feedback from the graduate students that pointed out that many of the graduate faculty requires them to submit the bulk of

course requirements that often become difficult for them to comply with due to time constraints. That is, students with family responsibilities found it difficult to manage their time effectively much more when a bulk of course requirements are given.

In the aspect of teaching practices, graduate students indicated a very satisfactory ($M = 90.16, SD = 1.23$) perceived teaching practices of their faculty. Such a result is expected considering that graduate faculty are, aside from being knowledgeable of the appropriate teaching practices that they do in the classroom, they are also expected to have classroom practices that they would develop the graduate student competencies. Relatively, in graduate school, one entry requirement for a faculty is to have attained at least a good teaching competence. Thus, in this study, these faculty characteristics are being looked into.

One limitation of this study is, the data were obtained only from students' perception nevertheless, taking students on board in the teaching and learning endeavor is significantly important since their views would provide meaningful feedback that would contribute to the improvement of teacher's performance (Ibad, 2019). He even added that graduate students at this stage are already mature; therefore, their perceptions help teachers enhance their teaching. Moreover, the various standard deviation (SD) values shown in Table 5 may indicate a consistent perception of students on the characteristics of the graduate faculty and that the varying values are dependent on the measurement scale used for each variable. Harvey (2011) stated that student perceptions of teacher competence provide information for faculty improvement, as well as guide future students in course selection and administrators to make decisions in terms of teacher service and promotion. Furthermore, such evaluation can contribute to accountability and quality assurance processes which are not the most important purpose of teacher evaluation. The most important purpose remains improvement in the quality of learning

Academic Performance. Shown in Table 6 are the varying levels of academic performance of the study participants. As indicated, thirty-nine (39) or 50% of the graduate students indicate a very satisfactory level of academic performance ($M = 1.36, SD = 0.06$); fourteen (14) or 18% showed satisfactory level ($M = 1.56, SD = 0.07$); and twenty-five or (32%) have outstanding academic performance. Overall, the level of academic performance of graduate students falls on the very satisfactory ($M = 1.35, SD = 0.14$). Remarkably, this result indicates that the present sample does not have any problem with their academic performance.

Table 6.
Academic Performance of Graduate Students

Academic Performance	N	%	Mean	SD	Interpretation
1.0 – 1.24	25	32	1.22	0.11	Outstanding
1.25 – 1.49	39	50	1.36	0.06	Very Satisfactory
1.50 – 1.74	14	18	1.56	0.07	Satisfactory
Total	78	100	1.35	0.14	Very Satisfactory

As noticed, the above result is contrary to the common observation and feedback of the faculty, which, according to them, a considerable number of graduate students do not usually comply with their course requirements on time. Relative to this, the researcher herself being a graduate faculty, has also observed such habitual late submission of coursework of the students. This late submission, however, cannot be accounted for in the present study because the study sample of the present study were only those who have earned grades in all subjects enrolled during the terms specified in the study. As observed, most students submit their coursework in bulk, usually done at the end of the term or months after, or some were left unattended until it lapsed. The exclusion of graduate students who have incomplete grades is, however, considered a limitation of the study.

Correlation Analysis

In this study, three correlation analyses were performed in conjunction with the three groups of identified precursors, the personal, professional, and perceived faculty-related factors. Table 7 presents the results of the correlation analysis between student personal factors and academic performance. Interestingly, the negative relation between the three student personal factors (age, civil status, and graduate school readiness) and academic performance and the positive relation between submission of coursework practices and academic performance were curiously observed .

Table 7.
Correlation Analysis Between Students' Personal Factors and Academic Performance

Factors	1	2	3	4	5	6	7
1. Age	1	.002	.655**	.255*	-.006	-.154	-.246*
2. Sex		1	.126	.044	.062	.248	.032
3. Civil status			1	.093	.054	-	-.244*

			.010		
4. Graduate School Readiness	1	.007	.044	-.297**	
5. Attitude towards attendance policy		1	.117	-.053	
6. Coursework submission practices			1	.366**	
7. Academic performance				1	

* p < .05; ** p < .0001

More specifically, findings revealed that age [r(76) = -.246, p < .05 is significantly but negatively related with academic performance. This result confirms the findings of Lefrancois (1983) and Murman (2015), which showed that age is significantly correlated with intelligence. Murman (2015) stipulated that most intellectual functions of a person decline with age. Although some viewed that intelligence declines with age yet, others did not. Murman (2015) further said that age-related diseases accelerate the rate of neuronal dysfunction, neuronal loss, and cognitive decline, with many persons developing cognitive impairments severe enough to impair their everyday functional abilities, and hence declining intelligence.

The negative correlation result observed between civil status and academic performance [r(76) = -.244, p < .05] was remarkable. To understand this clearly, it should be noted that in the data analysis, codes were assigned to the three categories of civil status, as follows: 1 for single, 2 for married, and 3 for separated or widowed. Thus, the negative correlation result means that married and widowed/separated students (assigned with higher numerical codes) tend to have lower academic performance than single students. This result is attributed to the fact that married students have less time for their studies than single ones because they give more of their time to their families. Likewise, for the widowed or separated individuals/students, they also have less time for their school work because they are the only ones attending to their family or children. For example, graduate students who have children or parents who depend on them for support may find difficulty in accomplishing graduate school tasks/requirements because the structure of graduate education still presumes or necessitates time, which can conflict with family or other responsibilities.

Unlike single graduate students, they have the luxury of time for their schooling and tend to have better academic performance. For graduate school readiness, the negative correlation result of r(76) = -.297, p < .01 suggests that students with a higher level of school readiness or those who think of themselves ready for graduate school work tend to have lower

academic performance. At some point, when a person is overconfident of himself may tend to relax and may set aside things that he/she is supposed to do for school and may result in lower academic performance. This may also mean that students with a higher level of readiness might have found their undergraduate course easier and yet, not adequately prepared for the rigorous demands of graduate school. Alternatively, a higher level of readiness may have been driven to excel yet never believed that they had performed well enough.

As expected, submission of coursework practices revealed a strong positive correlation with academic performance [r(76) = .366, p < .01]. This result suggests that students who religiously submit his/her course requirements may tend to get higher academic grades. This is because teachers tend to give higher grades for those who submit coursework on time than those who submit late.

Table 8 shows result of correlation analysis between student professional factors and academic performance. As shown, time management skills is highly positively related with academic performance [r(76) = .531, p < .001]. This suggests that students who manage their time well tend to get better grades. Such result affirms the study findings of Razali et al. (2017) and Sayari et al. (2017) who concluded that time management skills is significantly positively correlated to academic achievement of students. They suggested that, students should observe and undertake prioritization of their tasks and responsibilities to improve their academic performance.

Table 8.
Correlation Analysis Between Professional Factors and Academic Performance

Factors	1	2	3	4	5	Academic Performance
1. Relatedness of BS degree to graduate program	1	.080	-.108	-.222	.074	-.074
2. Nature of Work/ Position		1	.268*	-.150	-.148	-.186
3. Career aspirations			1	-.173		.058
4. Time management skills				1		.531**

As shown, time management skills is highly positively related with academic performance [r(76) = .531, p < .001]. This suggests that students who manage their time well tend to get better grades. Such result affirms the study findings of Razali et al. (2017) and Sayari et al. (2017) who concluded that time

management skills is significantly positively correlated to academic achievement of students. They suggested that, students should observe and undertake prioritization of their tasks and responsibilities to improve their academic performance.

Table 9 presents correlation between faculty-related factors and academic performance. As indicated, none of the faculty-related factors yielded significant relationship with academic performance. This result implies that the aforementioned factors do not have anything to do with students' academic performance. This implies that, considering that graduate students are already matured and are responsible enough, they are not affected by their perception of the practices of their respective professors in the classroom.

Table 9.
Correlation Analysis Between Perceived Faculty-related Factors and Academic Performance

Factors	1	2	3	Academic Performance
1. Practices in giving coursework	1	.321*	.056	-.112
2. Teaching practices		1	.088	.071
3. Teaching competencies			1	-.007

Regression Analysis

To determine which of the presumed precursors best explain graduate students' academic performance, stepwise regression analysis was performed. Results of the analysis are shown in Table 10.

Table 10.
Stepwise regression analysis on academic performance and its influencing factors

Factors	Unstandardized Coefficients (β)		Standardized Coefficients (Beta)	t-value	p-value
(Constant)	3.331	1.459	-	2.28	.025
Time Management Skills	.136	.023	.496	5.87	.000
Submission of Course-work	.065	.017	.330	3.90	.000
Graduate School Readiness	-.079	.022	-.309	-3.67	.000

$R = .690$; Adjusted $R^2 = .455$; $F(3,74) = 22.42$; $p < .01$

The table presents the model for the significant precursors of students' academic performance [$F(3,74) = 22.42$; $p < .01$]. Specifically, the table reveals the unstandardized regression coefficients (β), intercept and standardized regression coefficients (Beta) for each variable. Looking at the individual relationships between each of the independent variables, time management skills (t = 5.87, $p < .01$), submission of coursework practices (t = 3.90, $p < .01$) and graduate school readiness (t = -3.67, $p < .01$), each was found to significantly influence the academic performance of the graduate students. This result suggests that of the various factors investigated in the present study, only three came out as strong precursors of students' academic performance, such as time management skills, submission of coursework practices and graduate school readiness of the students, and among the three factors, time management strongly influence academic performance.

Conclusions

The results of the present study both confirm and contradict the findings of previous research, however, contribute to the existing literature and may provide insights to graduate school practitioners. The significant correlations that exist between academic performance and some of the student-related factors, the age, civil status, and graduate school readiness, pinpoint the need to understand the many concerns and challenges that graduate students face while pursuing graduate studies. Age, for example, the importance of understanding how cognition changes with age, given that some students who pursue graduate studies are of older age, is a primary concern of educational institutions, particularly graduate school. Likewise, in the aspect of student's civil status, the findings that those married and/or single parent (separated or widowed) students tend to have lower academic grades than the single graduate students. This calls for some initiatives that Graduate Schools to consider. That is, these students may be given special programs for them to cope with the demands of graduate school work.

Moreover, the findings that graduate school readiness as a significant precursor of academic performance concerns both undergraduate and graduate faculty members involved in students' graduate school preparation, taking two main points from this study. First, undergraduate faculty can have a profound impact on their students' sense of being well prepared for graduate school, hence giving primary concern with undergraduate students' preparation for them to confidently face graduate school work.

The influence of time management or balancing work on students' academic performance emphasizes

their importance on students' graduate school success. Thus, the need for the students to balance graduate career and responsibilities are also given equal importance with other factors in conjunction with the graduate school accomplishments.

Overall, the present study concluded that certain factors significantly influence the academic performance of graduate students. Among these factors, three (3) came out as significant precursors - time management skills, submission of coursework practices, and graduate school readiness.

Recommendations and Implications

To minimize the detrimental impact of age on cognition among older (elderly) graduate students, intervention programs such as healthy lifestyle campaign may be conducted by institutions concerned, particularly the Graduate School. Older or elderly graduate students are strongly encouraged to be involved in healthy lifestyle activities such as physical activity, mental stimulation, avoiding excessive exposure to neurotoxins (e.g., alcohol), treating depression, and managing stress, to decrease the rate of cognitive decline.

Graduate Schools may identify graduate students who do not feel well prepared for graduate work and direct them toward experiences that would improve their sense of being prepared. This initiative will not only help the students improve their academic grades but this may likewise reduce rates of students exiting graduate programs without earning a degree and also mitigate feelings of stress as well as possibly improving their later job performance.

Graduate students are likewise encouraged to religiously submit course requirements promptly to avoid overloaded course requirements that may result in a lapsed coursework and may lead to getting an automatic-failing grade if not attended to. This study suggests that the Graduate School and its faculty may adopt a '*reward intervention program*' to motivate students to be prompt in submitting course requirements. Additionally, it is also recommended that the faculty should consider the distribution of course requirements/assignments to be done well in advance so students can fit them into demanding schedules without setting aside significant time for their families on weekends.

Moreover, the graduate faculty may also consider sparing little time to discuss in the class their own family responsibilities with graduate students. Doing so reinforces the fact that it is possible to have a family and a successful academic career.

Likewise, both the Graduate School and the students themselves must cooperate, joining hand-in-hand to help and provide support to students for them to succeed in their graduate endeavor and obtain a graduate degree within the prescribed period as reflected in their respective study program. Students should manage their time wisely, to balance their academic work, including family responsibilities. The school could help by planning and conduct various seminars where pertinent topics can be discussed, such as, '*Time Management Seminar-Workshop*' to re-engineer the time management skills of the students.

Finally, it is also strongly recommended that the Graduate School and the students themselves have to consider to embrace the influencing factors of the students' academic performance - time management skills, submission of coursework practices, and graduate school readiness. Other researches related to the present study may be conducted to consider larger sample size and to include other factors that will possibly influence the academic performance of graduate students.

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