

Demographic Predictors of Teacher Education Students' Self-efficacy and Self-regulation in Tarlac Agricultural University, Philippines

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ABSTRACT

With the extent of research studies on strong self-efficacy and self-regulation skills as predictors of high academic performance, the present study examined the predictors of self-efficacy and self-regulation skills of 81 first year teacher education students in Tarlac Agricultural University, Philippines. It made use of comparative-predictive design to attain the objectives of the study. Based on the findings, it can be concluded that extra-curricular interests of the students have positive significant relationship with self-efficacy and self-regulation while families' monthly income has positive significant relationship to self-regulation. Furthermore, extra-curricular interest of students is a predictor of self-efficacy and self-regulation. Meanwhile, self-regulation of the students is different in terms of their families' monthly income and extra-curricular interest. Hence, it is hereby recommended that the students should be encouraged to build interest and participate in different extra-curricular activities in the University. Likewise, parents and other members of the family should strive to increase monthly income. The University and other agencies through different extension and community outreach activities may help the parents of teacher education students to find ways for additional income generation as this may affect students' self-regulation.

Keywords: *Self-efficacy, self-regulation, extra-curricular interest, families' monthly income, parents' educational attainment*

INTRODUCTION

Factors that contribute to a high or low GPA have been accounted to some recent and past researches. Self-efficacy refers to one's beliefs about his/her ability to accomplish tasks. Academic self-efficacy is a person's confidence in his/her ability to organize, execute, and regulate performance in order to solve a problem or accomplish a task at a designated level of skill and ability. Academic self-efficacy refers to a person's conviction that they can successfully achieve at a designated level in a specific academic subject area (Bandura, 1997). According to Bandura (1993) self-efficacy influences individual feelings, thoughts, motivation and behaviour. This means that an individual's inner belief influences personal abilities and decisions. In reference to academics, the self efficacy measure predicted module

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performance, and importantly showed the strongest relationship of all predictor variables (Lane A., Hall & Lane J., 2004); academic self-efficacy predicts and increases the academic achievement in high school and undergraduate students (Yip, 2012; Abolghsemi & Javanmiri, 2012; Dogan, 2015; Lee & Mao, 2016; Alhadabi & Karpinski, 2019). On the other hand, individuals typically choose tasks and activities that provide them a sense of capability and avoid such activities that do not provide them such a sense. Students who are confident of their capability to organize and manage affairs and tasks, show high sense of self-efficacy (Kadivar, 2009). Students with higher levels of technology self-efficacy and course satisfaction also earned better final grades (Wang, Shannon, & Ross., 2013). However, strength of decision-making and task self-efficacy predicted physical performance, but not decision-making performance (Hepler & Chase, 2008).

On the other hand, self-regulated learning encompasses activities that focus on learning objectives in which students direct, modify, and maintain their learning activities. Zimmerman emphasizes that a private learner who is self-regulated must use specific strategies during learning so as to realize the specified academic goals (Zimmerman, 2002). For instance, in a self regulated learning context, learners set specific learning objectives in form of outcomes and or performance. The learner applies strategies which are deemed appropriate to realize learning objectives and also monitors the effectiveness of those selected methods or learning strategies. In regard to evaluating personal developments, a self-regulated learner assesses or evaluates personal achievements in reference to the expected goals or outcome. If it happens that the learner did not achieve the stipulated learning objectives, then both the objectives and learning strategies are going to be revised. However, if the training objectives are achieved, then such a learner will set new learning goals and plan for brand spanking new learning activities. Several studies have shown that students who perform well in their academics are more of self-regulated learners than those with lower academic performance (Chen, 2002; Young, 2005; Stephenson & Isaacs, 2019). A study by Fuladchang (2002) regarding to the effectiveness of self-regulation skills on academic achievement, showed that the experimental group in comparison with the control group had better performance after training. On the other hand, the results suggested in the study of Xin Li and Chen (2018) that the mobile self-regulated learning approach significantly enhanced students' learning achievements and self-regulated learning skills.

With the findings of the studies aforementioned that Self-efficacy (SE) and Self-regulation (SR) are significant predictors of academic performance of students, the researcher of the present study desired to find demographic predictors of SE and SR such as sex, monthly family income, parents' educational attainment and extra



curricular interests of the first year teacher education students of Tarlac Agricultural University during the Academic Year (AY) 2019-2020. This will greatly contribute to fill the gaps on the research niche of self-efficacy and self-regulation because there is no research that looked into the predictors of SE and SR of students. Hence, the present study aimed at the following objectives: (a) to describe the demographic profile of first year teacher education students in terms of grade point average, sex, monthly family income, parents' educational attainment, and extra curricular interests; (b) to find significant difference of students' self-efficacy and self-regulation in terms of sex, monthly family income, parents' educational attainment, and extra curricular interests; and, (c) to find significant effect of the following students' demographic profile to self-efficacy and self-regulation.

MATERIALS AND METHOD

Comparative-predictive design was used to attain the objectives of the study. The 81 first year teacher education students of Tarlac Agricultural University - College of Education were the respondents of the study. Total enumeration was used as sampling technique in the study. The data were elicited through the researcher-made questionnaire and the adopted Self-efficacy and Self-regulation questionnaire. The Self-Efficacy scale by Schwarzer & Jerusalem (1995) was used to assess a general sense of perceived self-efficacy with the aim in mind to predict coping with daily hassles as well as adaptation after experiencing all types of stressful life events. On the other hand, the Self-regulation scale by Schwarzer, Diehl & Schmitz., (1999) refers to post-intentional self-regulation when individuals are in the phase of goal-pursuit and face difficulties in maintaining their action. In such a maintenance situation it is required to focus attention on the task at hand and to keep a favorable emotional balance. Thus, attention-regulation and emotion-regulation are revealed in these scale items. The results of the Self-efficacy and self-regulation of the respondents were subjected to test of normality prior to statistical treatment.

Simple frequency counts and percentage were used in the study. In finding the relationship and prediction among the demographic profile of the students to self-efficacy and self-regulation, Pearson Moment Correlation and linear regression analysis were used. Meanwhile, Multivariate Analysis of Variance was used to determine the significant difference of students' self-efficacy and self-regulation in terms of sex, monthly family income, parents' educational attainment, and extra-curricular interests. Tables and figures were utilized to give the reader a comprehensive picture of the gathered data and information.



RESULTS AND DISCUSSION

Demographic Profile of First Year Teacher Education Students

A demographic profile is a tool that identifies several characteristics of the respondents in this study. Common characteristics in the profile include students' grade point average, sex, monthly family income, parents' educational attainment and extra-curricular interests.

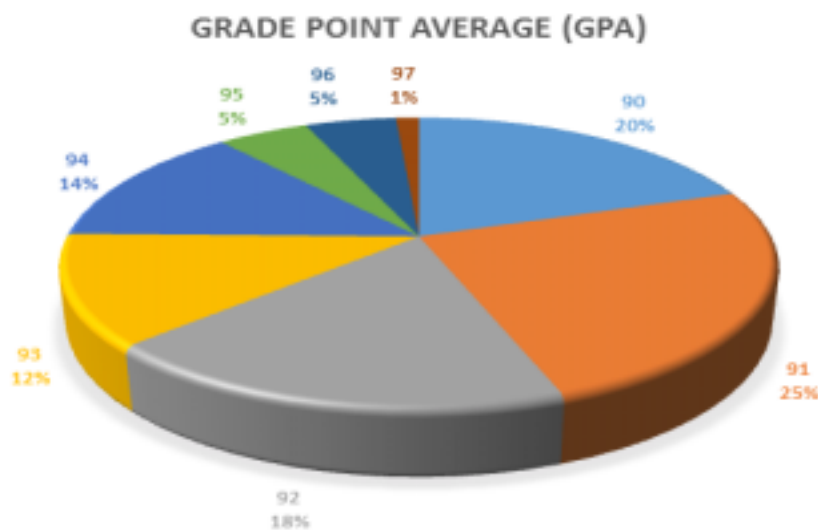


Figure 1: Grade Point Average (GPA) of First Year Teacher Education Students

Academic performance has become an important component within the determination of job selection within the current world. This has caused most companies and/or agencies of the present time to demand for high grade point averages (GPA) from applicants as one of the criterion for initial job selection, recruitment and hiring. In the Philippines, the Department of Education (DepEd) recognizes that the success of any education system greatly relies on the competence of its teachers. Hence, one among the first issues the Department aims to deal with through its comprehensive implementation of the K to 12 Basic Education Program is that of the need for highly competent teachers in basic education. The program plans to realize this objective through significantly improving professional standards which will better make sure that the teachers hired are ready to substantially contribute to the event of lifelong learners. With this, the DepEd set the highest criterion percentage of 20% to Education of the applicants; education shall be rated in terms

of the applicant's academic achievement. Thus, all subjects with corresponding units must be included in the computation – the GPA.

Grade Point Average (GPA) is a sign of a student's academic performance at a basic education, tertiary and graduate education, calculated because the total number of grade points received over a given period divided by the entire number of credits earned.

In context, the Tarlac Agricultural University-College of Education ensures that all teacher education students enrollees of the institution are competent through the Admission and Retention Policy. A minimum of 90 GPA for Senior High School Graduate and passing University and College Admission Tests (i.e. Differential Aptitude Test; Teacher Aptitude Test; English, Science, and Mathematics Proficiency Test; and Interview) are being implemented for the admission of first year undergraduate students in the College.

As presented in figure 1, most of the first year teacher education students' grade point average are 90, 91 and 92 while very few gained 95 and above. Yet, all of these students are outstanding with regard to the grading system of the Department of Education which entails that all the students score between 90 and 100 outstanding marks. This can be inferred that all of the students received awards as with honors, with high honors and with highest honors during their graduation in senior high school. These GPA are expected in the College of Education since there is an admission and retention policy that is being followed and implemented to ensure competent and quality graduates in teacher education.

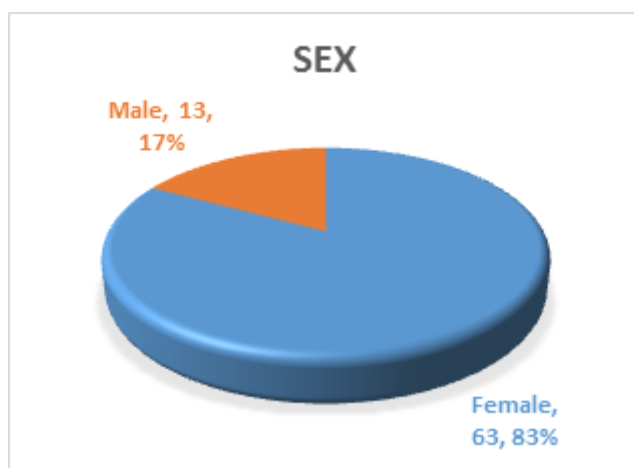


Figure 2: Sex of First Year Teacher Education Students

Sex is defined as is either male and female, the two main categories into which humans and most other living things are divided on the idea of their reproductive functions. In the study, sex is described as the biological category of the respondents based on reproductive functions.

As shown in figure 2, majority of the students are female and very few are males. It is expected that there are more female teacher education students since this is the trend for the past years in the enrollment. As a product of culture and stereotyping in the past, females are for teaching position while males are for other white collar jobs like engineering and for leadership positions. In the Philippines, there are more female teachers in Basic Education as well as Higher Education sector. With this, it can be inferred that students who are taking and about to take teacher education as a career to pursue is greatly influenced and will be influenced by the society and culture.

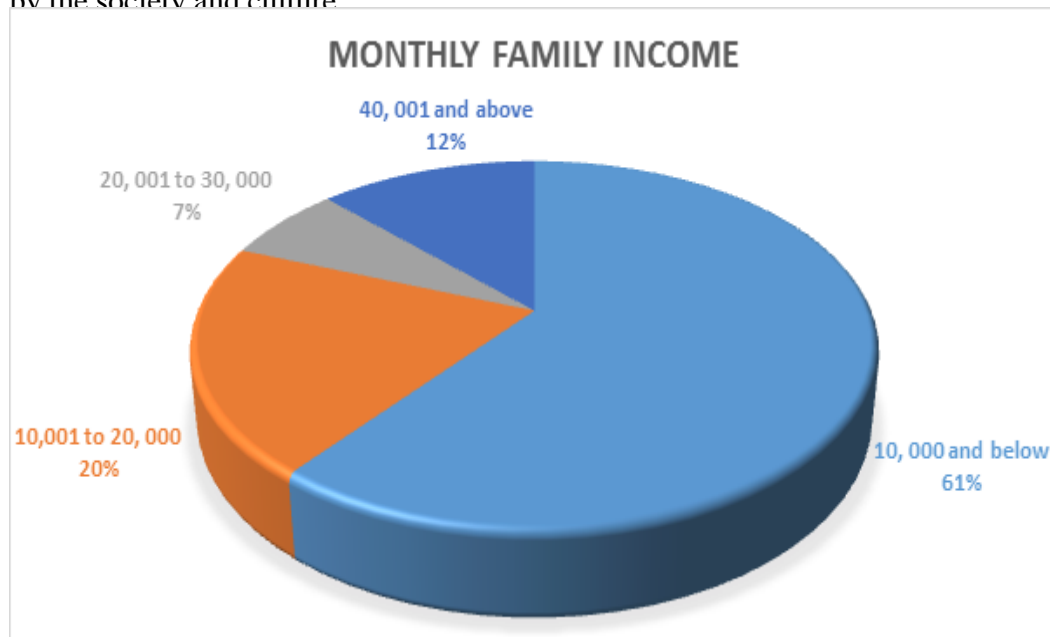


Figure 3: Monthly Family Income of First Year Teacher Education Students

The estimated monthly family income is the gross income of the household. This further refers to the total income of the family members at home with blue or white collar jobs. It is presented in figure 3 that majority of the students are below poverty line. Since the University is located in a rural area of Tarlac Province and a public university in the Philippines where tuition and other school fees are free, most of its enrollees are coming from the low to middle class of families with PhP 10,000.00 monthly income. Based on interviews, most of these families are earning income

through farming as Tarlac is largely indulged in agriculture. While those who have higher monthly income are families with members working as professionals in the country and as Overseas Filipino Worker. Hence, attaining a degree and a diploma hopes to shed a brighter light in the families who are under poverty threshold.

According to Philippine Statistics Authority, in the first semester of 2018, a family of five needed no less than PhP 7,337, on the average, to meet the family's basic food needs for a month. This amount is the food threshold. On the opposite hand, none but PhP 10,481, on average, was needed to satisfy both basic food and non-food needs of a family of 5 during a month. This amount is the poverty threshold. These are 10.9 percent above the food and poverty thresholds from the primary semester of 20151. Food threshold is that the minimum income required to satisfy the vital and crucial food needs and the nutritional requirements set by the Food and Nutrition Research Institute (FNRI) to make sure that one remains economically and socially productive. On the opposite hand, poverty threshold is that the minimum income required to satisfy the essential food and non-food needs like clothing, fuel, light and water, housing, rental of occupied dwelling units, transportation and communication, health and education expenses, non-durable furnishing, household operations and private care and effects. Hence, these students are striving to finish their baccalaureate degrees to uplift their way of lives above the poverty threshold.

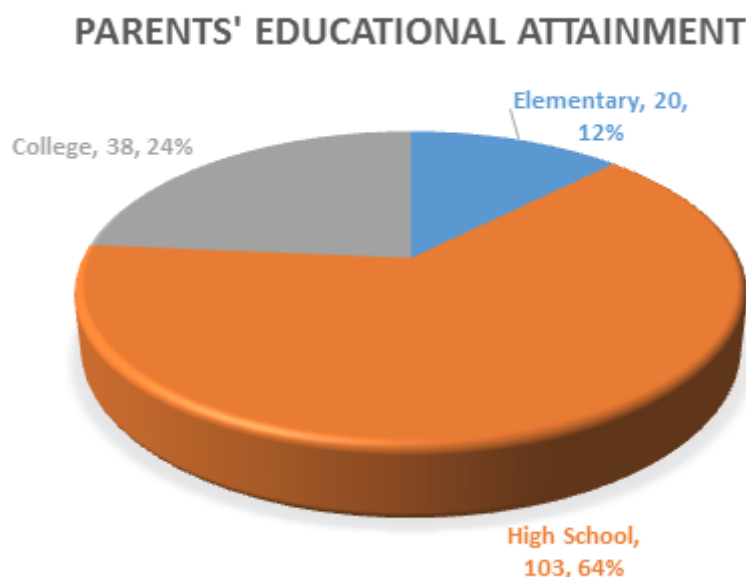


Figure 4: Parents' Education Attainment of First Year Teacher Education Students

The educational attainment of the students' both parents are described as a completer or undergraduate of elementary, high school and college. However, there is a student with solo parent which was also recorded. Hence, the total number of parents tallied is not exactly twice the number of respondents.

Based on the above figure, majority of the parents of the first year students in the College of Education are high school graduates or have reached high school level. This profile affected the monthly income of the families as presented in the previous discussions, since educational attainment contributes to employment, underemployment and even unemployment. With this, it can be inferred that most of the parents are striving harder for their children's completion of higher education taking advantage of the government's program and effort in providing free and accessible higher education in the public State Universities and Colleges.

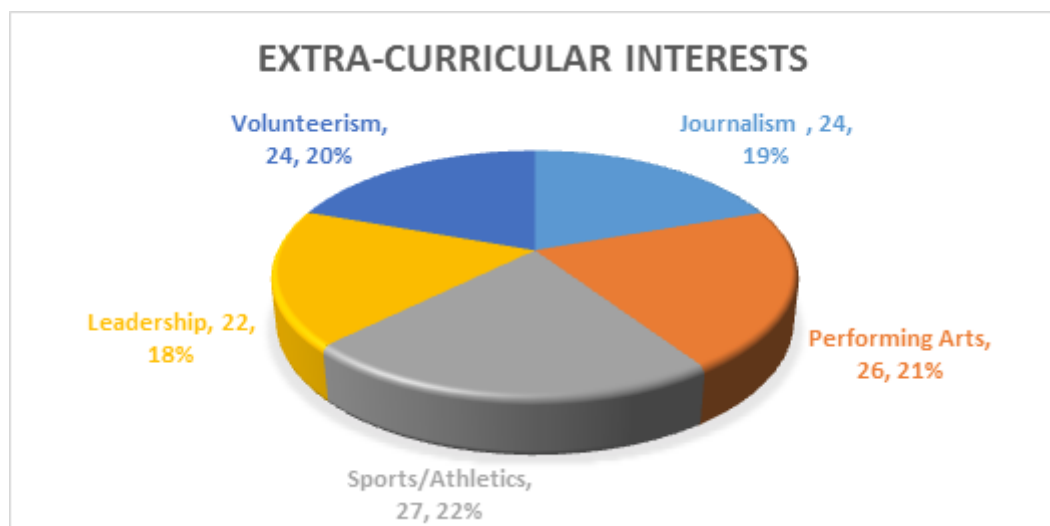


Figure 5: Extra-curricular Interests of First Year Teacher Education Students

Extra-curricular activity is anything a student participates or accomplishes which does not fall within the scope of his/her enrolled curriculum. Specifically, it is in relation to officially or semi-officially approved and usually organized student activities (such as sports/athletics, leadership, journalism, performing arts, volunteerism, etc.) connected with school and usually carrying no academic credit. Sports/Athletics as a form of extra-curricular interest has the highest percentage, followed by Performing Arts, Volunteerism, Journalism and then Leadership. As the pursuit of higher education can push the students to their limits due to curricular tasks and requirements, extra-curricular activities is being participated to have a balanced college life and to avoid burnout. Hence, it is interesting to note that most of them have interests in different extra-curricular activities.

In the University, students are being encouraged to participate in different extra-curricular activities to enjoy benefits such as incentives. The students who are interested in sports/athletics may join the varsity teams of the University such as basketball, volleyball, baseball, badminton, tennis among others. In performing arts, students are enjoined to participate in dance troupes and chorale groups also known in the University as Performing Guild. Students who are interested to extend their expertise, skills and other forms of help to communities can participate in different extension and community outreach activities of the University. Meanwhile, The Golden Harvest is the official student publication of the University; students can join the group and hone their skills in this field.

Table 1: Difference of Students' Self-efficacy and Self-regulation in Terms of Sex, Monthly Family Income, Parents' Educational Attainment, and Extra-Curricular Interests

	Sex	Monthly Family Income	Parents' Educational Attainment	Extra-Curricular Interests
Self-efficacy	.726	.575	.354	.631
Self-regulation	.912	.039*	.566	.010**

** . Correlation is significant at the 0.01 level

* . Correlation is significant at the 0.05 level

According to Baumeister (1997), self-regulation (SR) can be defined a complex ability that allows an individual to regulate and control their thought or behaviour. Self-regulation allows individual to be able to adjust flexibly to changes and be able to respond to daily demands (Siegel, 2007). On the other hand, self-efficacy is defined as the perceived level of competencies in which one believes in his or her ability to do successfully a particular task (Gore, 2006). As presented in the table 1, there is significant difference on the first year teacher education students' self-regulation in terms of monthly family income ($F=3.551$, $p < 0.05$) and parents' and extra-curricular interest ($F=3.947$, $p < 0.01$).

In terms of parents' monthly family income, students' families with Php 40,000.00 and above has the highest SR rate with a mean of 3.4. On one hand, students with Php 10,000.00 and below have the lowest SR rate with a mean of 2.74. Hence, the higher the families' monthly income, the higher the SR rating. With regard to extra-curricular interest of the students, those with four extra-curricular interest have 3.45 mean while those with no extra-curricular interest have a mean of 2.65. Thus, the more extra-curricular interest of the first year teacher education students, the higher the SR rating based on the mean. In context, the students' ability to control their thoughts from distracting them from the task at hand, ability to work in a focused way, and ability to control feelings which is required in a problem-oriented attitude differs in terms of their participation in extra-curricular activities



and families' monthly income.

Table 2: Students' Demographic Profile, Self-Efficacy and Self-Regulation

	Sex	Monthly Family Income	Parents' Educational Attainment	Extra-curricular Interest
Self-efficacy	.474	.359	.213	.002**
Self-regulation	.575	.013*	.236	.000**

** . Correlation is significant at the 0.01 level

*. Correlation is significant at the 0.05 level

Table 2 indicates that Extra-curricular interest of students has significant positive relation to Self-efficacy (SE) ($r=.321$, $p < .01$) and Self-regulation (SR) ($r=.408$, $p < .01$). Likewise, Self-regulation (SR) and Family income ($r=.247$, $p < .05$) has significant positive relationship. This means that when the extra-curricular interest increases, SE and SR of student increases; when monthly family income increases, their SR increases. Contextually, it can be inferred that the first year teacher students who have more extra-curricular activities like leadership, journalism, volunteerism, sports/athletics, performing arts, their ability increases where they can manage to solve difficult problems, can easily stick to aims and accomplished goals, and can usually handle whatever comes their way. Furthermore, the greater monthly income of the students' family, the greater their ability to concentrate on one activity for a long time, control their thoughts from distracting from the task at hand, stay focused on their goal and don't allow anything to distract them from their plan of action as self-regulation behaviors increases. This is because financial constraints in the pursuit of the students' studies is not an issue. Hence, better focus is expected. On the other hand, there is no significant relationship between SE and sex, monthly family income, and parents' educational attainment since the computed p-value is higher than the alpha level of 0.05. On the other hand, this result is also true with the relationship between SR with students' sex and parents' educational attainment.

Table 3: Students' Demographic Profile as Predictors of Self-Efficacy and Self-Regulation

	Monthly Family Income	Extra-curricular Interest
Self-efficacy	-	.003
Self-regulation	.062	.000

Since only students' demographic profile on extra-curricular interest have significant relationship to SE and SR, and only monthly family is significantly related to SR, these are the profiles analyzed through regression analysis. As presented in the table 3 and based on the statistical findings, only extra-curricular interests among the demographic profile of the first year teacher education students has been found to be a predictor of self-efficacy and self-regulation. It can be inferred that due to the extra-curricular experiences of the students in journalism, leadership,



volunteerism, performing arts and sports or athletics, their SE and SR are being affected. Furthermore, the students' ability to cope with daily hassles as well as adaptation after experiencing all kinds of stressful life events and the ability to focus attention on the task at hand and to keep a favorable emotional balance are being affected by their extra-curricular activities. In context, since student-leaders, student-journalists, student-performers, and student-athletes need efficient and effective time management to perform various and demanding duties and responsibilities in the University, their ability to cope with stress and the ability to pursue personal goals and evaluate their progress toward those goals towards having a balanced higher education life is achieved which influences SE and SR. In relation to this, it is in contrast with the results in the study of Amnie (2018), that male gender and higher income are predictors of self-efficacy to cope with stress in health education practice. However, respondents in this study are practitioners not students, yet this is a vital study in weaving the niche of self-efficacy studies.

CONCLUSION AND RECOMMENDATIONS

1. All of the first year teacher education students' GPA is outstanding and there are more female than male. In addition, most students are interested in sports/athletics as extra-curricular activity. On one hand, majority of the parents have reached or graduated high school which lead them to have monthly income of under the poverty line threshold
2. Self-regulation of the students is different in terms of their families' monthly income and extra-curricular interest.
3. Extra-curricular interests of the students have significant relationship with self-efficacy and self-regulation while families' monthly income has significant relationship only to self-regulation. Furthermore, extra-curricular interest of students is a predictor of self-efficacy and self-regulation.
4. The students should be encouraged to build interest and participate in different extra-curricular activities in the University.
5. Parents and other members of the family should strive to increase monthly income. The University and other agencies thru different extension and community outreach activities may help the parents of the teacher education students to find ways for additional income generation.
6. Further research has to be conducted considering other localities and



variables, as well as wider scope.

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