

Designing a Mentoring Program Prototype for the Government Scholars

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ABSTRACT

A mentoring program prototype was developed for the government scholars in response to a CHED requirement. This study explicates how this prototype was evolved using the model of ADDIE, a generic design framework to develop a learning system. Broadly, the process constituted seven steps. It started with analyzing the needs of 231 ESGP-PA grantees. The results were used to design and develop the mechanics of the prototype. The designers drafted a mentoring handbook to explain how the program prototype works, and to guide the mentoring participants. For two school years, 20 ESGP-PA scholars and 10 mentors voluntarily joined the mentoring sessions. Their experiences became the basis for evaluating the prototype, the last stage of the ADDIE process. In general, the prototype was viable; the mentees claimed the sessions enriched their learning; and the mentors were satisfied with the results. The procedure for designing and developing the prototype; and the positive feedback of the participants, may serve as blueprint to generate a mentoring program for the other needs of the scholars, particularly those under the conditional cash transfer program such as the Expanded Students' Grants-in-Aid Program for

Poverty Alleviation or ESGP-PA locally known as Pantawid Pamilya Pilipino Program, or 4Ps.

Keywords: ESGP-PA, conditional cash transfer, scholars, 4 Ps

INTRODUCTION

The Commission on Higher Education (CHED), which oversees higher educational institutions in the Philippines, is a partner of SUCs in the implementation of a range of scholarship, grants-in-aid, and student loan programs, collectively called student financial assistance programs (StuFAPs). Among the programs currently implemented is the Expanded Students' Grants-in-Aid Program for Poverty Alleviation (ESGP-PA). Hinged on the concept of conditional cash transfer modeled by Latin American countries (cited in Reyes & Tabuga, 2012), this program is intended to support the college education of poor but deserving children. The beneficiaries are those families identified by the Department of Social Welfare and Development (DSWD) called the Pantawid Pamilyang Pilipino Program (4Ps). The ESGP-PA is made possible by the joint partnership of, the Department of Labor and Employment (DOLE), the Department of Budget and Management (DBM), the Department of Social Welfare and Development (DSWD), the Philippine Association of State Universities and Colleges (PASUC), and the CHED itself.

As stated in the Joint Memorandum Circular 2014-01, the main purpose of the ESGP-PA program is to increase the number of graduates in higher education among poor households. In this way, grantees' families may lift themselves out of poverty and become able to contribute to national development (CHED, 2014).

Is there a guarantee that the ESGP-PA grantees complete their programs? Several studies found that financial aid in college is linked to retention and student success (Demetriou & Schmitz-Sciborski, 2011; Retention Study Group, 2004; Swail, 2004; Tinto, 2004). There are other scholarships and financial assistance initiatives that are being implemented in different higher educational institutions both private and public institutions alike, to promote and support student success. As scholars, with financial assistance, college students are likely to get good grade point averages (GPA) and are more likely to persist and finish in college (Lamon, 2010; Perry, 2010).

To ensure success, Bukidnon State University, as one of the implementers, is keeping track of the ESGP-PA recipients, especially so that initial assessment on the academic performance of these recipients, revealed that they have problems in the academic subjects like Mathematics, Science and English. To those who are already enrolled, some have failing grades; others have low grades, while others have incomplete grades. To design an appropriate mentoring program to help the students pass the courses is wanting. The benefits of student mentoring programs in a university setting have been established in the literature. Setting up one for BukSU is therefore unquestionably useful provided the purpose and features are clear; and the mentoring details are needs-based and outcomes-based.

Malliby cites the work of Wynn (2003) to explicate that there are nine categories of life skills identified as crucial not only for 'effective life transition' but also for student learning. These are: 'emotional intelligence, healthy lifestyles, effective communication, intuition, creativity, conflict resolution, critical thinking, managing change, self-responsibility, self-management, and teamwork.' (p. 150). These could be addressed by setting up a mentoring program which could be formal (e.g. Kim & Egan, 2012) or informal (Inzen & Crawford, 2005); structured or unstructured. In designing a mentoring program for students in a university or workplace setting, several features may be included. The literature indicates that student mentoring models infuse several features in order to determine the nature of mentoring programs established in a workplace or educational institutions.

In general, this study is aimed at developing and designing a prototype of mentoring program for the ESGP-PA grantees of Bukidnon State University. The Techopedia defines a prototype as 'an original model, form or an instance that serves as a basis for other processes.' Traditionally, a prototype is a representation of a physical object that is being constructed to produce models. The construction principles may also be applied in instructional design to produce a project model that allows changes to be made while the design cycle is in progress. The purpose is to reduce the development time of a complex project, and allow it to be improved while being tested. In this paper, the prototype of a mentoring program using the ADDIE model, would be generated to enhance a particular learning skill. The result may serve as the basis for other mentoring processes addressing the various needs of the grantees of the ESGP-PA scholarship program.

FRAMEWORK

The Techopedia defines a prototype as ‘an original model, form or an instance that serves as a basis for other processes. Traditionally, a prototype is a representation of a physical object that is being constructed to produce models. The construction principles may also be applied in instructional design to produce a project model that allows changes to be made while the design cycle is in progress. The purpose is to reduce the development time of a complex project, and allow it to be improved while being tested. In this paper, the prototype of a mentoring program using the ADDIE model would be generated to enhance a particular learning skill. The result may serve as the basis for other mentoring processes addressing the various needs of the grantees of the ESGP-PA scholarship program.

To address these research questions, the prototype of the mentoring program that was developed and tested, the instructional systems design using the ADDIE approach was followed to analyze, design, develop, implement and evaluate the mentoring program for the government scholars. Strickland, (2008) demonstrated this ADDIE process, as shown in the figure below:

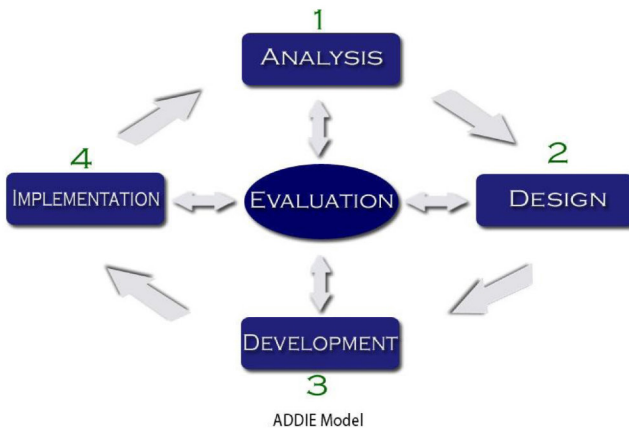


Figure 1. The ADDIE Model

Although the steps involved would not necessarily linear, Figure 2 shows that there were a total of seven (7) steps that were followed in developing the mentoring program; and each of the five (5) stages illustrates specific steps that were modified based on the model of Sherman et al. (2000), as follows:

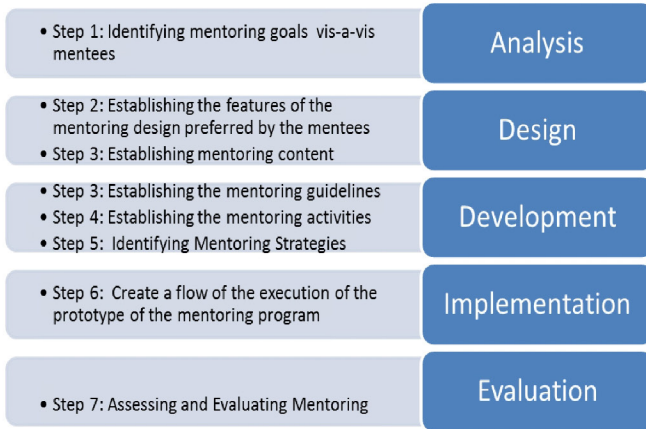


Figure 2. Steps in developing the mentoring prototype

Referring to Figure 2 above, the Analysis Stage addresses Objective # 1 which is to determine the status of the academic literacy skills. The Design Stage addresses Objective # 2 which is to identify the mentoring needs. The Development Stage addresses Objective # 3 which is to generate a list of mentoring activities. The Implementation Stage addresses Objective #4 which is to create a flow in the execution of the mentoring program for the 4 Ps. And finally, the Evaluation Stage addresses Objective #5 which is to evaluate the prototype of the mentoring program.

OBJECTIVES OF THE STUDY

Specifically, the objectives were: 1) to determine the academic literacy skills of the grantees, that need improvement; 2) to identify the grantees' mentoring needs; 3) to generate a list of the grantees' preferred mentoring activities; 4) to create a flow in the execution of the grantees' mentoring program; and 5) to evaluate the prototype of the mentoring program.

METHODS

Using the ADDIE model (Figure 1) and the seven steps (Figure 2), the prototyping process was conducted in school year 2015–2016 and 2016-2017 at the Bukidnon State University, Malaybalay City, Bukidnon. All the 231 ESGP-PA grantees in 2015 were surveyed with a questionnaire designed to collect their basic profile; their mentoring needs in the English, Mathematics, and Science basic courses; as well as their mentoring preferences. Frequencies and percentages were used to analyze the collected data. Their responses to the open-ended questions were likewise analyzed by grouping similar answers, and identifying unrelated answers.

Based on the survey results, the prototype for mentoring scholars who have difficulty with their Mathematics subject was evolved. Mathematics was chosen for testing because the program's tutorial sessions are already existent, thus preventing the delay in the completion of the ADDIE process for evolving the mentoring program. As soon as permission from the department as partner of the program was granted, an announcement inviting all the 4Ps grantees to sign up for mentoring was posted at strategic places around the school, and at the Facebook account of the university. Only 20 mentees (4 Ps grantees from Bukidnon State University) signed up and 10 mathematics mentors (faculty and advanced mathematics students) responded. As soon as the semester of SY 2015-2016 started, twenty mentoring sessions transpired for a total of 40 hours with an average of 10 mentoring sessions per semester conducted during school days during the common time of the mentors and mentees, until SY 2016-2017. The Office of the Student Services (OSS) that supervises all the university's scholarship programs led the implementation of the prototype. Through an interview schedule designed by the authors of this study, the 30 participants (mentors and mentees) were evaluated. The designers who are the authors of this study also evaluated the prototype. The open-ended questions yielded responses which were analyzed by categorizing related answers and identifying unrelated ones.

RESULTS AND DISCUSSION

There are two sets of data presented in this section: 1) the responses collected from all the ESGP-PA grantees, during the different stages of the ADDIE procedure (Figure 1), and in particular, the data collected from the steps involved in each stage (Figure 2); and 2) the evaluation results of the mentoring program prototype after it was tested to 30 participants (20 mentees and 10 mentors). Included in the presentation of the evaluation are also some insights of the designers. To organize this section, the sub-headings are patterned after the order of the research questions that this study attempted to answer.

The Subjects that Grantees have Difficulty With

When asked about the subjects that they struggle with, majority of the grantees cited English, Mathematics and Science as problematic. Although they said they do not necessarily despise English, they expressed their strong desire to learn English (98%). They further indicated that they need mentoring particularly in ‘speaking’ (80%) and writing with correct grammar (82%). However, when further asked about their strengths and weakness, more than one half claimed they are weak in the area of ‘speaking,’ and the remaining also claimed that they are strong in the same area.

With regard to Mathematics (95%) of the grantees expressed that they need mentoring on this subject. Specifically Algebra (60%) and Calculus (35%). While about one-half of the grantees are already confident about their mathematical ability, the other half said they need mentoring. This seems to explain why the grantees grade in Mathematics ranges from 2.75 to 3.00. In sciences (63%) of the grantees said they have concerns, they are specific about the topics in Science that they need help with, Physics (30%) and Chemistry (53%). This may be taken to mean that Physical sciences subjects are, in general, difficult for them.

Table 1

The grantees' preferred mentoring activities

Subject	Frequency	Percentage
1. English	226	98
a. Speaking	184	80
b. Writing with correct grammar	189	82
2. Mathematics	219	95
a. Algebra	138	60
b. Calculus	80	35
3. Science	145	63
a. Physics	69	30
b. Chemistry	122	53

N= 231

The Grantees' Mentoring Needs

When asked if they wish to be mentored, 89.81% agreed; some wanted it daily (43.95%) while majority prefers a weekly (61.78%) session. Most of them wanted to start it right away (56.05%), and the majority of those who wanted this schedule prefer it to be done two hours daily (25.27%), although the majority wanted mentoring to occur about 6 hours/week (54.09%). When further asked about the mode of mentoring, 87.26% prefers a face-to face mode in contrast to mentoring by phone or through texting using their cellular phones. They prefer that the meeting should be structured (64.97%), rather than casual (33.76%), and in a group mentoring setup (31.85%) in contrast to team mentoring or ementoring. They also prefer a mentor who is approachable, good listener, patient, interactive, and have a good sense of humor; they further said that the mentors must be women who are corporate municipal and state employees.

Table 2

The grantees’ mentoring needs

Mentoring Needs	Frequency	Percentage
1. Mentoring Options		
a. Agree	207	89.81
b. Not Agree	24	10.19
2. Mode of Mentoring		
a. Face to Face	202	87.26
b. Phone	29	12.74
3. Mentoring Frequency		
a. Daily	88	38.22
b. Weekly	143	61.78
4. Number of Hours		
a. 2 hours daily	58	25.27
b. 6 hours per week	124	54.09
c. Set schedule	49	20.64
5. Relationship Type		
a. Structured	150	64.97
b. Casual	78	33.76
c. Others	3	1.27

N=231

The Grantees’ Preferred Mentoring Activities

When the participants were further asked to list down their needs, this listing (in this order) emerged: soft skills training, financial literacy, fun run, handling relationships, film viewing, service learning, environmental awareness and English skills (speaking and writing). When categorized, these skills would fall

under these types of activities: intellectual (e.g. computer skills, and mentoring for English, math, and science); emotional (e.g. stress management); physical (e.g., zumba, fun run); spiritual (film viewing on relevant topics, self understanding); social (handling relationships, social etiquette); economic (financial management); political (voting behavior, service learning, anti-insurgency, etc.) Table 3 below shows the preferred mentoring activities in column 1; the second column specifies the aspect of their mentoring need; while the third column indicates the percentage of the grantees who responded in the survey.

Table 3

The grantees' preferred mentoring activities

Preferred activities	Area	Frequency	Percentage
Soft skills training	Emotional	134	54
Financial literacy	Economic	122	53
Fun run	Physical	120	52
Handling relationships	Social	120	52
Film viewing about God	Spiritual	115	50
Service learning	Political	81	35
Environmental awareness	Others	65	28
English/math/science skills	Intellectual	44	19

N= 231

The Prototype

After having analyzed the needs and preferences of the potential mentees, the mentoring program prototype was designed and developed. The objectives of the prototype were: 1) to improve the 4Ps academic performance in

mathematics; 2) to offer students having difficulties in Mathematics, with sessions done in partnership with university units capable of responding to students' specific needs; 3) to provide the 4Ps with the type of mentors they prefer; and 4) to provide the university with instructions on the mechanics of the mentoring program. The handbook that the mentoring designers wrote contains information that includes the mentoring rationale; mentoring features (e.g. the number of mentoring hours, venue, number of mentees, number of mentors); the mentoring content for mathematics; the possible number of participants, and funding requirements; the guidelines (for the mentees, mentors and partners for implementing the program); the mentoring preferences of the mentees, the mentoring strategies, and the mentoring flow. Included are also the survey results of the analysis stage, e.g. the mentoring activities that are not directly related to their difficulty in mathematics (See Table 3). This information forms part of future mentoring activities that may be organized to supplement academic-related coaching.

Attachments of this handbook incorporates the forms needed to sign up for the program, the survey instrument to be used to assess the mentoring program, attendance sheets, daily time record; the templates for the letters of request, and for the memorandum of understanding between mentoring partners, e.g. between the OSS and the Brainteasers club, who need to work side by side to implement the mentoring activities that will address the difficulties of the government scholars.

Based on the responses of the participants to the first four research questions, the Office of the Student Services (OSS) partnered with the Mathematics Department of the Bukidnon State University since their tutorial sessions have already been successfully in operation. This department tested the prototype first by going through the flow of implementation (Figure 3). Hence, mentoring in mathematics became the preliminary mentoring activity.

Mentoring Program Prototype

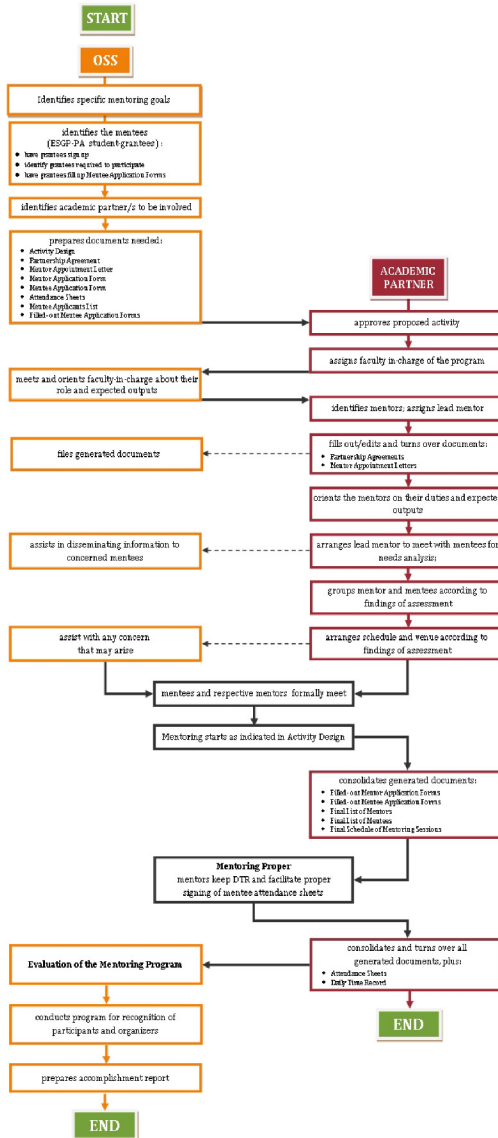


Figure 3. The Mentoring Program Prototype

Evaluation of the Mentoring Program

Three evaluation perspectives are shown here: mentees, mentors, and designers.

Perspectives of the Mentees

The mentees found the sessions very helpful in a sense that their understanding of concepts was reinforced. They also attributed to mentoring the improvement of the result of their quizzes in their actual mathematics classroom. 'The exercises during the sessions allowed me to practice solving problems in Algebra,' claimed one mentee.

The evaluation further revealed that the mentor was approachable, 'always replied when texted', 'always reminded (the mentees)' about the mentoring sessions, 'very helpful,' and very competent. Most of the mentees described the mentor as 'a good listener' on top of other performance indicators such as: 'committed,' 'patient,' 'open-minded' and 'non-judgmental.' Majority of the mentees said that the mentors were 'very good' in terms of 'communication.' They were also happy because the mentors were accessible electronically anytime. A number mentees also perceived the mentors to be providing them (mentees) with good leadership. No problem related to the mentoring styles was reported, and some expect to see a 'more structured,' and others, a 'more casual' strategy. Overall, the mentees were very satisfied with the mentoring prototype.

The dominant concern reported was that the venue of the mentoring, which they said must be free from any distraction. They also expressed their desire to have more mentoring time. Overall, the mentees were very satisfied with the mentoring prototype.

Perspectives of the Mentors

The main issue of the mentors was the material time for mentoring. Even if the time for mentoring was already set, there were some activities related to urgent administrative matters that interfered, for example, evaluation documents that must be obtained, collated, and filed. Sometimes, the grantees' time was not sufficient to be able to report on time or to report regularly. Another issue was related to their compensation. The mentors were supposed to obtain minimal honoraria, but there was a little confusion in terms of the documents which the administration needed as evidence that the mentoring sessions took place as reported.

While the Mathematics Department was successful in terms of commitment, output, and outcome – the staff needed was not sufficient to promote the mentoring program, and to prepare the instructional materials for both the mentees and the mentors.

Perspectives of Designers

The mentoring process was smooth and unreasonably interrupted. The sessions started and ended promptly. The participants were given time to evaluate their experiences. Most of all, the procedure for the analysis, design, development, implementation, and evaluation (ADDIE) of the mentoring program prototype was not delayed. There were no issues related to excessive development time, in any of the stages of ADDIE. However, the designers feel it is important that any plan to scaffold scholars' learning should be participated in by the representatives of the administration so that mentoring will be widely promoted and financially supported. Thus, if the mentoring prototype has to be refined and sustained, a policy may be crafted, approved, and periodically modified to suit the dynamic needs of the university, and its students who are facing any learning disability.

This section provides interpretation of the findings relevant to the research objectives related to their academic difficulties; their mentoring needs; the list of mentoring activities; the flow in the execution of the mentoring program; and the evaluation the mentoring prototype.

In general, the results of this study affirm that aside from the need to be mentored in Mathematics, English and Science, the grantees also needed guidance in the various areas of their college life. The results further justify the inclusion of the provision (7.0) indicated in the Joint Circular (#01) by the CHED, DSWD, DBM and DOLE on June 23, 2016, titled 'Enhanced Implementing Guidelines for the ESGP-PA', which stipulate the need for a mentoring program to cater to the special needs of the grantees. Furthermore, the fact that the grantees are not only concerned about their academic difficulties show that they have other related concerns, e.g., the need to be accepted by their peers, and the need to feel that they belong to this university. Thus, they want to engage in 'fun run,' a type of physical exercise done in a group; they also want to view films, and learn new things just like any regular student. Apparently, they need programs that will strengthen their self-awareness and help them obtain a healthy identity.

In particular, the survey showed that contrary to the traditional notion that mathematics is a universal learning disability, the grantees said they have more difficulty in speaking and writing in English although they also said that to a large extent, they need help with Algebra and Calculus. This seems confusing because based on the basic education curriculum of the Philippines, that is, before the K to 12 was adopted in the Philippines, the respondents learned English for already 10-11 years. This number of years assumes that they attended classes that incorporated English in their curriculum from Kindergarten or Grade 1 until they graduated from high school; hence it is expected that their English proficiency is enough for them to confidently communicate meaning, both verbally and in writing. However, what probably explains why they find English more difficult is the quality of teaching they got from their elementary school and high school in origin. This is affirmed by our country's stakeholders who stated that we need to step up our efforts in improving the teaching and learning of English as this is a fundamental skill needed by the workforce, especially in light of the ASEAN integration phenomenon in which English is the official language (Cabigon, 2019).

With regard to the features of the mentoring program, the grantees' choice to be mentored in person; within a framework of a structured, group mentoring style; by an approachable, good listener, and a patient mentor- is evidence that the grantees wanted to be taught in a pleasantly nurturing set up as opposed to an intimidating environment. The results of the survey, therefore, mirror what mentoring should be: 'The emphasis should be on the relationship rather than only on expertise' (Masango, 2011).

In the list of activities that they prefer, the grantees reflect their multidimensional needs which are logically connected and intertwined with their academic pursuits. This confirms the life skills that UNESCO enumerated (cited in Gayatri, Channaveer & Laksmana, 2017) for learners to survive in their academic life; as well as the study of the Utah University about the Money Mentors Program (Garcia, et al., 2017). The students in our survey, for example, cited the need to increase their financial literacy most likely because they regularly receive a certain amount from the government to complete their program. They are, therefore, reasonably concerned about money because they do not want to run out of resources while pursuing their program. In a study conducted by Silverberg & Orbeta (2017), a number of universities conduct

financial literacy seminars for ESGP-PA grantees to properly handle their stipend.

The mentoring guidelines that were drafted took into consideration the organizational structure and culture of the university to ensure smooth implementation. Figure 3 demonstrates, for example, the number of forms that must be filled out to make sure that every concerned unit or department must be formally informed about every detail of the program operation. Moreover, documentation of every step of the program was observed to show proof to the university's accreditors that executive orders or memoranda are carried out. Mentoring strategies as well took into consideration grantees' preferences, e.g. face-to-face mentoring sessions.

By and large, the mentoring program prototype that evolved was limited to a prototype for the mentoring sessions for academic enhancement in Mathematics. The number of mentoring sessions was limited as well. Plans are underway, however, for mentoring sessions that should also focus on other areas of the student development.

CONCLUSIONS

The process for designing and developing the mentoring program prototype for the 4Ps grantees of Bukidnon State University made use of the ADDIE model to form the prototype, with each stage of the model indicating steps starting from the analysis of learners' mentoring needs, to the evaluation of the users of the prototype. The trial implementation of the mentoring program and the positive comments that the prototype generated from both the mentors and the mentees indicate the potential of this mentoring program prototype to empower the government scholars for academic success.

A refined version of this prototype may be adopted to address the other mentoring needs of the grantees. It is important, however, that the mentoring sessions will take place within an environment of a curriculum that accommodates a reasonable work load for both the mentors and the mentees, and/or a curriculum that is not so crowded with academic or co-curricular

requirements so that the mentors and the mentees would have enough time to engage in meaningful mentoring activities. Appropriate modifications and enhancement of this mentoring program prototype that will cater to the holistic needs and preferences of the grantees may likewise be helpful especially to government scholars coming from impoverished communities and struggling with their learning skills.

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ACKNOWLEDGMENTS

The authors wish to express their sincere thanks and gratitude to Bukidnon State University for the financial support in the conduct of the research. Likewise, the authors are grateful to the Editor-in-Chief as well as the Office of the Vice President for Research, Publication and Extension of Liceo de Cagayan University for accepting the paper for publication.