

Proceeding Paper

Printed Modular Approach on Selected High School Learners in Infanta Pangasinan for Successful Learning Delivery Amidst Disruption [†]

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Abstract: The coronavirus disease altered human history in terms of the normal course of life, day-to-day business transactions, and education setup. It could be observed that learning institutions across the globe have been affected much by the raging effect of the pandemic. This study was conceptualized based on the learning insertion made in basic education to continue to live up to the expectations in the academic community emanating from the grassroots. The printed modular approach became the instrument of stakeholders inserted into the actual learning process as the study described its statuses, effects, and challenges on selected High School learners.

Keywords: academic performance; grade point average; printed modular approach; self-learning module



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1. Introduction

The entrance of COVID-19 in the first quarter of the year 2020 marked a lasting imprint on everyone's heart and mind, accentuated by different emotions across different walks of life.

Therefore, the academic community was inescapable to its impact, globally. Thus, academic leaders must come up with an appropriate plan to succeed in the path of the teaching and learning processes.

In the Philippine setting [1], the coronavirus disease forced schools in the country to stop face-to-face learning activities and abruptly shift to a modular approach. In a practical sense, the modular approach situates Filipino learners to learn in the comfort of their homes. In this picture, the parents or guardians are the ones who aid in the entire homeschooling process. Research extant confirmed that the objectives of successful learning delivery even in the prevailing health crisis are still achievable. Many researchers [2] confirmed the promising benefits of modules regularly provided by the Secondary Public Schools as alternatives to attain successful learning every day. Moreso, one study [3] supported flexible learning in the learning process amidst disruption.

In the same context, it was argued that the Modular Distance Learning Modality (MDLM) warranted many benefits for teachers, learners, and parents. The study [4] concluded the many difficulties of modular implementation that could affect learners' individuality. The study recommended creating a holistic teaching approach through synchronous and blended experiential learning, increasing partnership with stakeholders, and ensuring accessibility of Learning Resources (LRs) and Instructional Materials (IMs). Nonetheless, in their study, researchers determined the leisure activities conducted by students at home during the pandemic. The concepts of the source of stress and coping mechanisms of students during the lockdown and extreme community quarantine due to the health crisis reminded us not to overlook teenagers, such as students, in helping them [5].

The opening of classes, specifically at the basic education level, was encouraged even at the heed of the “academic freeze”. Professionals, educators, parents, and guardians prioritized safety and well-being. However, education remained the top priority, such as for the Department of Education, Philippines. Academic measures were issued to steadfast the set education objectives despite the current challenges and threats posed by the learning environment.

These safety precautionary measures somehow provided little confidence on the part of the members of the academic community. Schools initially strategized their workforce to combat the raging effect of the pandemic without compromising the health and safety of teachers, parents, and learners.

Among the many school strategies employed is the modular approach. This is one way of addressing the need for continuous education while little confidence is being challenged by the danger brought over time by the environment, in which we once believed we were safe and secure. Through this platform, there is the future of learners getting promoted to another grade level every year, while learning tasks could still warrant successful learning delivery.

The concept of the modular approach has been a practice among educational institutions. Through this approach, schools prepared learning references such as printed learning activities and Instructional Materials (IMs). In achieving the many objectives of the modular approach, learning institutions design their individual plan to continue educating the young ones while the pandemic is still happening.

For example, the Department of Education issued a memorandum to ensure continuous education. The Basic Education Learning Continuity Plan (BELCP) established the roadmap for handling and delivering the modular approach. It guided how to deliver education in this time of crisis. The key components were multiple learning modalities with blended and distanced learning, and preparing school leaders and teachers for multiple learning delivery modalities.

Consequently, The Pangasinan State University Laboratory High School Infanta Campus adopted the beneficial effect that the modular approach could give to its stakeholders. The school situates in a 3rd class Municipality where accessibility becomes one of the major concerns. Given the challenges surrounding this learning institution, such as provisions of basic education essentials, access to farm and market roads, student support, strong financial assistance and program, and school administration, the Campus keeps on moving forward to attain its academic goals. With the available resources concerning facilities and funding requirements, the School Administrators capacitate to continue the torch of delivering excellent and quality basic education, especially to far-flung and mountainous areas.

The Pangasinan State University Laboratory High School Infanta Campus prompted the research idea on the prevailing statuses, effects, and challenges given by the printed modular approach. Through this initiative, the School Administrators are sincere to its mission and vision for the University. Educating the youth and the community where it serves could mold them to become active agents towards driving the changes and needs of their society.

This study hoped to be of great help in describing loopholes in the actual learning process through the “insertion” of a printed modular approach enjoined by the stakeholders. Researchers envisioned continuously honing today’s achievers to become leaders of tomorrow, which is the goal of the Pangasinan State University Laboratory High School Infanta Campus.

2. Materials and Methods

This study used the descriptive survey research design. The nominated school was the Pangasinan State University Laboratory High School that has offered Junior and Senior High School programs since 2016. The study used convenient sampling for the Academic Year 2020–2021. The study surveyed the statuses, effects, and challenges on the conduct of

the printed modular approach as an intervention in the actual learning process of the High School Learners.

This study was conducted in the Pangasinan State University Laboratory High School Infanta Campus located at Bamban, Infanta, Pangasinan where the respondents were officially enrolled in the Junior and High School programs. The total samplings comprised one hundred twenty (120).

The study adopted an instrument [6]. The study structured one (1) set of questionnaires consisting of four (4) parts.

The first part asked the demographic profile of Grade 7 to 12 learners as to the grade level, sex, age, academic performance or grade, and honors received.

The second part revealed the statuses of the modular approach on the academic performance using a Likert scale where 1.00 (lowest) was interpreted as Least Agree (LeasA) and 5.00 (highest) was interpreted as Very Highly Agree (VHA). It comprised eight (8) benchmark statements.

The third part revealed the effects of the modular approach on academic performance using a Likert scale where 1.00 (lowest) was interpreted as Least Effective (LeasE) and 5.00 (highest) was interpreted as Very Highly Effective (VHE). It comprised fourteen (14) benchmark statements.

The fourth part revealed the effects of the modular approach on academic performance using a Likert scale where 1.00 (lowest) was interpreted as Least Serious (LeasS) and 5.00 (highest) was interpreted as Very Highly Serious (VHS). It comprised nineteen (19) benchmark statements.

The instrument had a total of forty-six (46) items of questions and statements and underwent minor modifications of wording to suit its purpose.

The instrument was originally structured using the medium of instruction and was translated by a Filipino Language Expert to ensure that the respondents fully understood the context of each question.

The instrument was piloted with eighteen (18) respondents to warrant integrity with reference to the Cronbach's alpha value [7].

This study surveyed The Pangasinan State University Laboratory High School as it also advocated quality education at the Secondary level. This study used convenient samplings where the computed number of respondents was based on expert panel judgment. The total sampling comprised one hundred twenty (120) learners. The pertinent records of High School learners, such as the total number of enrollees for the period and Quarterly Assessment Grade were requested from the office of the School Administrator. The study requested the six (6) Advisers (Grade 7 to 12) to join in the Focus Group Discussion (FGD), respectively. The researchers were the ones who personally distributed and retrieved the questionnaires because of the prevailing health crises with the consent and approval of the School Administrators and the concerned parents or guardians. The Junior and Senior High School learners answered the set of questionnaires. The questionnaires asked the respondents about the statuses, effects, and challenges through the printed modular approaches inserted into the actual learning process of The Pangasinan State University Laboratory High School Infanta Campus.

The retrieval ran from August 2020 to June 2021.

The study surveyed the demographic profile of the respondents as to their grade level, sex, age, academic performance or grade, and honors received, and presented them in tabular or graphical forms along with the given references [8–13].

3. Results and Discussion

For the profile of the respondents, data showed that only sex had a significant relationship to their Grade Point Average (GPA) with a computed *t*-value of 5.418 and *p*-value of 0.000 which were less than 0.05. Further, the grade level and age had no significant relationship to their GPA, since the *p*-value was 0.759 and 0.397, respectively, which were greater than 0.05. Females performed better than males in the printed modular approach,

which was reflected in their GPA and with the greatest number of learners who obtained “With Honors”.

For the status of the printed modular approach, the computed Pearson r was 0.375 and a p -value of 0.000 which was less than 0.05 at a 0.01 level of significance. This meant that there was a significant relationship between the status of the printed modular approach and the GPA of the learners.

For the effects of the printed modular approach, the computed Pearson r was 0.257 and a p -value of 0.005 which was less than 0.05 at a 0.01 level of significance. This meant that there was a significant relationship between the effects of the printed modular approach and the GPA of the learners.

For the challenges of the printed modular approach, the computed Pearson r was 0.034 and a p -value of 0.712 which was greater than 0.05 at a 0.01 level of significance. This meant that there was no significant relationship between the challenges of the printed modular and the GPA of the learners.

For the significant difference of dependent and independent variables, ANOVA Single-Factor showed that the computed F -value was 12.08 which was greater than the F -critical value of 3.02, indicating that there was a significant difference among the three (3) variables, i.e., Status, Effects, and Challenges.

Further, the post-hoc test revealed that: (1) The computed t -value was 1.35 and the t -critical value for one-tailed was 1.66 and 1.98 for two-tailed. Since the computed t -value was less than the t -critical value, it meant that there was no significant difference between status and effects. (2) The computed t -value was 5.26 and the t -critical value for one-tailed was 1.66 and 1.98 for two-tailed. Since the computed t -value was greater than the t -critical value, it meant that there was a significant difference between status and challenges. (3) The computed t -value was 3.85 and the t -critical value for one-tailed was 1.66 and 1.98 for two-tailed. Since the computed t -value was greater than the t -critical value, it meant that there was a significant difference between effects and challenges.

4. Conclusions

Despite the risk exposures on the health and safety of the members of the academic community at the basic education level, the School Administrators propelled with the institution’s mandate in providing excellent service delivery and quality education. The printed modular approach benefits the teachers, parents or guardians, and learners. However, it could not warrant the stakeholders’ confidence level to health and emotional well-being for long-term perspectives.

The Local Government Unit and Barangay Officials play a significant role in the overall process of the printed modular approach when they are properly involved, well-informed, and encouraged for higher participation.

This study generated the following hypotheses: H_1 —the printed modular has a difficulty index per grade level, age, and sex of the learners; H_2 —the printed modular approach has provided more benefits to learners; H_3 —the printed modular approach becomes more effective than the traditional approach; H_4 —the printed modular approach has moderate challenges to learners; H_5 —the printed modular approach warrants “authentic assessment” into the actual learning process; H_6 —the printed modular approach provides an accurate basis for quarterly assessment, i.e., Grade Point Average (GPA); H_7 —the printed modular approach promotes learners to the next grade level; H_8 —the printed modular approach helps learners obtain “With Honors”, “With High Honors”, and “With Highest Honors”; and H_9 —the printed modular approach helps female (sex) learners obtain honors.

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