

Intervening Effect of Hybrid Method in Enhancing Secondary Teachers' Engagement and Satisfaction in Angeles City

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Abstract

This inquiry was an attempt to probe the intervening effect of technology expressed as the hybrid method or approach in enhancing teachers' engagement and satisfaction in imparting knowledge to Senior High School. Descriptive-quantitative research was utilized. Fifty senior high school teachers teaching Accountancy, Business, and Management (ABM) strand students are targeted. However, only 35 filled-out survey forms were turned in. The application or homogenization of technology in educating the learners at the Senior Secondary level was recognized. Ethical considerations were employed in conducting this research; they were: respect for anonymity and confidentiality of the information collected; respect for privacy – respondents were given ample time to answer the survey questionnaire; they were protected in such a way that they did not feel intimidated, the proponent let another person conduct the survey and was not directly involved with the distribution and collection of the survey instrument. Results show that though teachers utilized the hybrid approach, a small percentage of them still fully utilized the traditional approach in providing information to their learners. Scientific progressions in technology have their own opportunities and challenges. Probing could be made to have coequality for all sets of learners on the implementation of computerization and automation to the ongoing pedagogy in the absence of permitting the ardent method of conveying what the essentials are. As a recommendation, further research could be triangulated, which will involve students and school administrators to further validate the mediating effect of hybrid learning on students' engagement.

Keywords: *traditional teaching-learning; SAMR model; a hybrid approach*



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INTRODUCTION

In the Philippines, Revised/Enhanced Educational System, "Senior High School" (SHS) pertains to the K to 12 program culminating terms. This covers Grades 11 and 12. Under this new curriculum setup, Learners are required to undergo a required course of study known as "strands" or "tracks" (Dep Ed, 2015). At the SHS level, a learner can choose among three tracks; one of these is the Academic track which includes the Accountancy, Business Management (ABM) strand. Even though a competitive spirit is prevalent in the citizenry, the country's former educational system became a blockage for Filipino graduates from being more competitive. When commencing the academic year 2012-2013, a modification was done from the 10-year of primary and secondary schooling to a 12-year program which is also known nowadays as the K to 12 Education Plan under the Philippines Department of Education. It offers a loosened 12-year period that provides learners

adequate time to grasp skills and acquire fundamental proficiencies. It also hastens the shared identification of Filipino graduates and professionals in other countries, more specifically in the Asian region (K to 12 Philippines, 2015).

The track of ABM centers on the fundamentals of managing financial wealth, managing a business, managing operations in various companies, with other related topics. The strand for Grades 11 and 12 started two years back in the university as a result of the K to 12 educational objectives of the Philippine government. Its structure and design are a precursor to business, accountancy, and related courses where mentees are provided critical training, and scientific and logical thinking. Get them familiar with the concepts and processes of "accounting", "business and management", and "theories and principles" to get them ready for university life. The focal point to contributing to the economy as they become part of various firms when they become employed in different roles or when they become leaders in the field they have chosen. The "School of Business and Accountancy" (SBA) is the only school in the entire university that caters to these ABM strand graduates from the Senior High School.

The F2F set-up is more likely to be for organized activities that practically apply the syllabus to solve problems or work using exercises and assignments (Poon et al., 2010). One period of hybrid schooling can make use of F2F time initially and a progression of activities that the students actively do simultaneously or with a self-paced approach. According to Donnelly: "there is some debate that classes done online would be stronger if the mentees and coaches have personally met first" (2010). In other instances, the shift to this kind of combined approach to learning has motivated teachers to revitalize responsibilities. The coordinator puts stress on empowering students with talents, knowledge, and skills that are fundamentally needed for making use of the majority of the resources and self-paced study time online, directing mentees to the best stimulating and valuable encounters (Puentedura, 2014).

Those who are called "facilitators" look at the following important factors:

1. Developing synchronous and asynchronous lesson types.
2. Ushering the mentees to convey messages horizontally and vertically, comprising academic features of the electronic composition excluding concepts.
3. Supporting mentees' studying modalities, rewording resources every time so as to elevate the studying encounter.
4. Evaluating and appraising in anticipation for teachers inside the normal scaffolding.

Biggs and co-authors state that by focusing on learning with the use of directed and typical tasks, the mixture perspective of studying is far more flexible than what other universities and establishments are considering "hybrid training". With this method, instructors shift all focal points from impartation of comprehension to actual experience, and establishments obtain limited expenses to transport lecturers anywhere so that they can manage the entire seminar and related tasks (Biggs et al., 2011). The mixed-method is becoming an essential choice for schools and universities that contemplate providing alternatives to learners an elevated customary encounter to learn less of forcing their finances to the brim. It mixes actual F2F instruction accompanied by synchronous studying. It has yielded significant outcomes since initially researched as a strategy in education. During the year 2010, America's Education Department mathematically uncovered that mixed-method groups had made significant outcomes as compared to F2F, uncombined

counterparts. The main reason is that this increasingly growing technique not only attracts flexible and individualized learning modes. It also permits teachers to generously provide more time as guides of learning. Most educational institutions switched to a hybrid form of learning for so many reasons and with some more accumulative evaluation queries. Modifying and converting tasks utilizing technology inside the classroom is more convenient.

Below is the research framework which portrays intervening, independent and dependent variables. Participants are the independent variables, hybrid learning techniques are the intervening variables, and the dependent variables are the results of the study and accompanying recommendations for future research. There is also an aim to summarize recommendations or suggestions in the most and least effective aspects of blended learning.

Figure 1 illustrates the operational framework utilizing Hybrid Learning (HL) as the mediating effect in teaching students at the SHS level, including the teachers' satisfaction. As shown in the framework, the hybrid approach as utilized was examined in its mediating effect on teaching students in Senior High School, particularly the ABM strand students of the Holy Angel University – Basic Education Department.

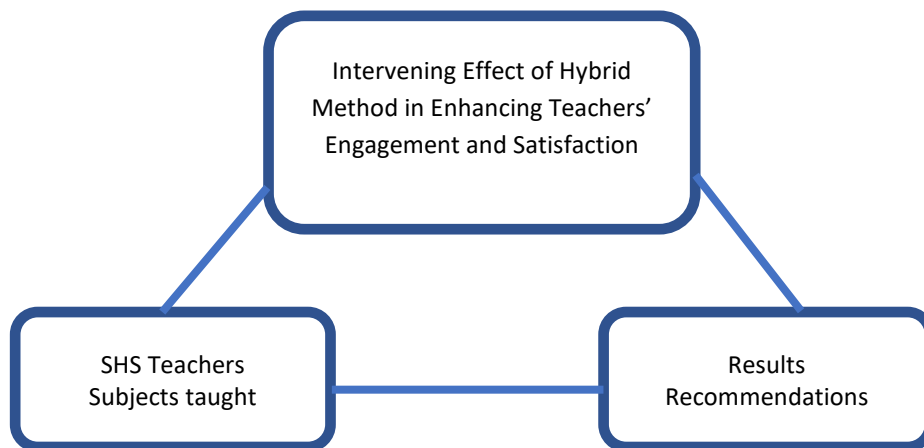


Figure 1. Operational Framework

This research examined the intervening effect of technology expressed as the hybrid learning approach to students' learning, particularly at the Senior High School level of Holy Angel University. It serves as a springboard into remodeling methods to instructing by the inclusion of unique instructional approaches to support learning within the four walls of a classroom.

Particularly, it probed to answer:

1. Is the hybrid learning approach put to use in instruction to HAU's ABM strand mentees?
2. What are the hurdles in employing the hybrid learning technique in instructing these HAU's ABM strand students?
3. How may the level of effectiveness be described in using a hybrid learning technique?
4. What are the advantages of utilizing a hybrid approach as a teaching method?

5. What is the most/least effective aspect of hybrid learning as a teaching method?

MATERIALS AND METHODS

Research Design

The researcher utilized descriptive-quantitative research. Fifty senior high school teachers teaching ABM strand students were targeted. However, only 35 filled-out survey forms were returned more than two weeks after permission was sought from the school principal. A possibility of integrating technology through the learning management system in instruction to mentees in the Senior Secondary level of the Holy Angel University was identified.

The Respondents

They were teachers who were teaching the ABM strand in Senior High School of the Holy Angel University. Initially, 50 respondents were targeted; however, there were only 35 respondents who submitted the filled-out survey forms. The youngest age of the participants is 20, and the oldest is 47. With regard to the gender classification, 17 are males, and 18 are females.

Research Instrument

The researcher utilized a survey questionnaire, which is self-made, to obtain needed data. The instrument was designed in a structure that respondents could easily comprehend the questions. It consists of subjects taught by the teachers. In order to validate the instrument used in the research, a pilot test for 20 teachers teaching in secondary school with similar characteristics as the respondents of the study was done. The result of the pilot testing showed that some words or phrases in the instrument are a little bit confusing. To address this, rewording was done to some questions in the questionnaire. Reliability was attained through the inter-rater reliability in which the instrumentation was tested on a different group of people. Also, an expert in research and statistics was also consulted.

Section 1 was all about the respondents' encounter with utilizing a blended instructing style. The second section is about participants' fulfillment of e-learning, and the third section is about remarks regarding e-learning. The first question under the first section is answerable by a positive or negative response. Additional information is needed when the respondent replies "yes", so that the researcher can get a more understanding of how the hybrid approach is being utilized by the teacher. However, whenever the participants reply in the affirmative more facts will be required. The next question, it is just a choice from the respondents. On the succeeding question is using the 5-point rating system called Likert; "5 = Most effective", "4 = More effective", "3 = Effective", "2 = Less effective" and "1 = Least effective". For the second section, which referred to the general fulfillment in the use of e-learning, a 4-point rating system was used; "4= Strongly agree", "3=Agree", "2=Disagree," and "1=Strongly disagree". Finally, the third section focused on participants' suggestions regarding the use of e-learning. This includes choosing the highest opportunities and challenges offered by the combined method of instruction and learning effectiveness and non-effectiveness of e-learning.

Data Gathering Procedures

Permission from the Basic Education Principal was requested verbally and in writing. The SHS Coordinator facilitated the dissemination of the questionnaires to respondents. Before factual exploration, an in-person meet and greet with the school principal existed. After approval, a letter was forwarded to the office of the principal. The letter was endorsed to the senior high school coordinator for distribution of

the survey forms. As ethical consideration, the proponent did not directly participate in the dissemination and gathering of filled-out survey forms.

Analysis of Data

Data were collated and categorized based on groups. Tools were used, such as "Frequency" and "percent" on "nominal data"; "Weighted Means" were utilized for the 5-point to the 4-point rating system. To evaluate the ordinal data below were utilized:

Table 1. 5-point rating system

| Likert Scale (1) | Likert Description (2) | Value Allocation (3) |
|------------------|------------------------|----------------------|
| 1 | Least effective | 1.00-1.49 |
| 2 | Less effective | 1.50-2.49 |
| 3 | Effective | 2.50-3.49 |
| 4 | More Effective | 3.50-4.49 |
| 5 | Most Effective | 4.50-5.00 |

Table 2. 4-point rating system

| Likert Scale (1) | Likert Description (2) | Value Allocation (3) |
|------------------|------------------------|----------------------|
| 1 | Strongly Disagree | 1.00-1.49 |
| 2 | Disagree | 1.50-2.49 |
| 3 | Agree | 2.50-3.49 |
| 4 | Strongly Agree | 3.50-4.00 |

Ethical Considerations

Ethical considerations were employed in conducting this research: respect for anonymity and confidentiality of the information collected; respect for privacy – respondents were given ample time to answer the survey questionnaire; they were protected in such a way that they did not feel intimidated, the proponent let another person conduct the survey and was not directly involved with the distribution and collection of the survey instrument.

RESULTS AND DISCUSSION

The paper quested on the intervening effect of a method known as "hybrid" to mentees' active participation with fulfillment. Participants are the senior secondary level teachers of Holy Angel University, particularly those who are teaching the ABM strand students. There were 35 teachers who were involved. Utilization of survey questionnaire to determine the integration and effectiveness of a

method in teaching and learning that combined the technology and traditional approach. All obtained outcomes went through a quantitative evaluation which is presented in this section.

Table 3 represents the age and gender distribution of the respondents composed of 35 Senior High School teachers at Holy Angel University who are teaching ABM strand students. The majority of the participants are from the age range of 25 years and below, or about 40.00% of the total respondents, with 20 being the youngest. It is followed by the age group from 26 to 30 years of age which is about 20.00%. Basically, males and females were well represented with 17 and 18 respondents, respectively. The age of the oldest participant is 47 and a female.

Table 3. Age and Gender

| Age | Gender | | Frequency | Percentage |
|--------------------|-----------|-----------|-----------|-------------|
| | Male | Female | | |
| 25 years and below | 9 | 5 | 14 | 40.00% |
| 26 – 30 years | 5 | 2 | 7 | 20.00% |
| 31-35 years | 2 | 4 | 6 | 17.14% |
| 36-40 years | 0 | 2 | 2 | 5.72% |
| 41-45 years | 1 | 2 | 3 | 8.57% |
| 46 years and above | 0 | 3 | 3 | 8.57% |
| Total | 17 | 18 | 35 | 100% |

Table 4 presents the subjects taught by the respondents alphabetically. Two participants are teaching Accounting 2. There are an equal number of respondents for the subjects: Culture, Society & Politics; Philosophy of the Human Person; organization and management; marketing; and practical research. It shows an equal number of respondents for Applied Economics, English for Academic Purposes, and Entrepreneurship.

Table 4. Subjects Taught

| Subjects | Frequency | Percentage |
|---|-----------|------------|
| Accounting 2 | 2 | 5.70% |
| Applied Economics | 5 | 14.29% |
| Culture, Society & Politics | 4 | 11.43% |
| English for Academics and Professionals | 5 | 14.29% |

| | | |
|--|-----------|-------------|
| Entrepreneurship | 5 | 14.29% |
| Introduction to Philosophy of the Human Person | 4 | 11.43% |
| Marketing | 4 | 11.43% |
| Organization and Management | 3 | 8.57% |
| Practical Research 1 | 3 | 8.57% |
| Total | 35 | 100% |

Data in the fifth table presents the use of "hybrid learning" for teaching. Results showed that most are not using this method. Only about 17 or 49.57% of the participants are using a blended approach. Most of them believed that it is still important to use the traditional method in teaching their subjects.

Table 5. Utilization of Hybrid Learning in teaching

| Answers | Frequency | Percentage |
|--------------|-----------|-------------|
| Yes | 17 | 48.57% |
| No | 18 | 51.43% |
| Total | 35 | 100% |

Hurdles are listed in the fourth table, namely: unsecured web connection with 20 of the participants or 34.29% choosing it as the number 1. It is followed by a weak signal, then by the availability of internet at school, and availability of internet at home. Lastly, one respondent mentioned that it is not applicable to the subject he is teaching.

Table 6. Barriers to Utilizing Hybrid Learning

| Barriers | Frequency | Percentage |
|--|-----------|-------------|
| 1. Unsecured Web Connection | 12 | 34.29% |
| 2. Poor Harbinger | 9 | 25.71% |
| 3. Accessibility of the web connection at school | 6 | 17.14% |
| 4. Availability of Internet at home | 5 | 14.29% |
| 5. Others: Not applicable to the Subject | 3 | 8.57% |
| Total | 35 | 100% |

The efficacy of the "hybrid approach" presented below indicates that it is better than the final figure of 3.66.

Table 7. Level of Effectiveness of Hybrid Learning

| Likert Scale (1) | Likert Description (2) | Value Allocation (3) | Frequency (4) | Sum[(1)*(4)]/n |
|------------------|------------------------|----------------------|---------------|--------------------|
| 1 | Least effective | 1.00-1.49 | 5 | 5 |
| 2 | Less effective | 1.50-2.49 | 5 | 10 |
| 3 | Effective | 2.50-3.49 | 6 | 18 |
| 4 | More Effective | 3.50-4.49 | 10 | 40 |
| 5 | Most Effective | 4.50-5.00 | 9 | 45 |
| | More Effective | | 35 | 128/35=3.66 |

In Table 8, the respondents expressed a desire to have e-learning in their next term. It presented the overall figure of 2.97, which is Agree.

Table 8. Have another hybrid learning approach to teaching

| Likert Scale (1) | Likert Description (2) | Value Allocation (3) | Frequency (4) | Sum[(1)*(4)]/n |
|------------------|------------------------|----------------------|---------------|--------------------|
| 1 | Strongly Disagree | 1.00-1.49 | 5 | 5 |
| 2 | Disagree | 1.50-2.49 | 5 | 10 |
| 3 | Agree | 2.50-3.49 | 13 | 39 |
| 4 | Strongly Agree | 3.50-4.00 | 12 | 48 |
| | Agree | | 35 | 102/35=2.91 |

The general fulfillment rating of 35 high school teachers is 2.91. It means that they are all in favor of the hybrid method in education. Table 9 also shows that there are 2 participants who chose strongly disagree as to the answer.

Table 9. Overall satisfied with hybrid learning

| Likert Scale (1) | Likert Description (2) | Value Allocation (3) | Frequency (4) | Sum[(1)*(4)]/n |
|------------------|------------------------|----------------------|---------------|--------------------|
| 1 | Strongly Disagree | 1.00-1.49 | 2 | 2 |
| 2 | Disagree | 1.50-2.49 | 11 | 22 |
| 3 | Agree | 2.50-3.49 | 8 | 24 |
| 4 | Strongly Agree | 3.50-4.00 | 14 | 56 |
| | Agree | | 35 | 104/35=2.97 |

Regarding the comments and suggestions of the respondents about the hybrid approach and method, the eighth table declares the highest four answers on the opportunities of e-learning. The pliability in accomplishing tasks makes the lead with 12 teachers or 34.28% who chose it. Seconded by convenience, 9 participants or 28.37%. There are some who answered, "it is a requirement for the course" and lastly is the "only available option".

Comments on Hybrid Learning

Table 10. Advantages of using hybrid learning

| Advantages | Frequency | Percentage |
|--|------------------|-------------------|
| 1. Flexibility to complete assignments | 12 | 34.28% |
| 2. Convenience | 10 | 28.57% |
| 3. It is a requirement for the course | 8 | 22.86% |
| 4. The only available option | 5 | 14.29% |
| Total | 35 | 100% |

The topmost selections of teacher-participants regarding the highest efficacy of e-learning were presented in table 9. The number one answer is; convenience with 34.29%, followed by technological advancement and effective teaching and learning process. Four of the respondents answered that it made use of the time efficiently and, lastly, that it provides a broader source of information.

Table 11. The most effective aspect of hybrid learning

| Most Effective | Frequency | Percentage |
|--|------------------|-------------------|
| 1. Convenience | 12 | 34.29% |
| 2. Technological Advancement | 9 | 25.71% |
| 3. Effective teaching and learning process | 7 | 20.00% |
| 4. Time Efficiency | 5 | 14,29% |
| 5. Broader Source of Information | 2 | 5.71% |
| Total | 35 | 100% |

Last but not least, table 12 presents the least effective aspect of HL is that there is a form of abuse because it is now easier through technology to educate oneself. As per outcomes, respondents reiterated e-learning changed the traditional interaction in the physical classroom. Present-day learners are inclined to apply technology which lets them avoid getting to the school library to read physical books. Secondly, unavailability of the internet in most parts of the province or area. Lastly is the unequal chance to have access to technology.

Table 12. The least effective aspect of hybrid learning

| Least Effective | Frequency | Percentage |
|------------------------------------|------------------|-------------------|
| 1. Abuse since education is easier | 15 | 42.86% |
| 2. Unavailability of Internet | 12 | 34.28% |
| 3. Unequal Access to technology | 8 | 22.86% |
| Total | 35 | 100% |

CONCLUSION

Based on the results, computers and the internet are widely used by learners and teachers. The combination and influence of computerization in taking hold of the education means of providing instruction and guiding modern-day learners. Valuable insights regarding the ongoing usage of conventional approaches in education as presented in the results of the study. This proves

that some may be shifting to technology, but traditional teaching is still very much applied, and technology is just a substitute.

As per the answers of respondent-teachers, age and gender have no direct relationship on whether a teacher will use traditional teaching methods or take advantage of technology in their teaching style. As a matter of fact, the utilization of the hybrid approach is based on the topic and the subject. It is also interesting to note that technology may be applicable or not, and it depends on the subject or topic. The results state that students who were given enough time to learn from the teaching materials provided to them became successful and earned a degree at the age of twenty-five. In spite of the opportunities at hand in social media and online communication, most educators choose in-person schooling. Likewise, becoming more active and getting mentees' attention is easier with the use of e-learning. This is similar to another study indicating that mentees are more active and push themselves to study and reach their potential using the available materials given to them.

Recommendations for Future Research

For future research direction, the following are therefore recommended; Since one of the significant hurdles in infusing technology and hybrid approach and method in instruction is "unavailability of the internet in school". It is therefore recommended for additional research to determine successful schemes on web connection and accessibility in school. A new study to resolve systemic and inclinational hurdles with ways to resolve them.

The results also informed that poor and weak internet signal and connection are other significant hurdles in applying mixed or hybrid methods. It is suggested that research explores opportunities to allow foreign telecom firms to crack the long duration of despotism in business. In this manner, the monopolistic control of the telecommunications industry will be addressed, which will provide equality to every student in all areas of the country.

The educators themselves are confused about applying computer-aided lessons, technology, and hybrid method to their tasks as teachers. Therefore, a further study can be explored the reasons for such confusion among teachers. It must go deeper into matters like the shortness of providing coaching and orientation with technology and qualifying the teaching force with LMS.

Further research could be triangulated, which will involve students and school administrators to further validate the intervening effect of hybrid learning on students' active participation.

REFERENCES

- Biggs, J., & Tang, C. (2011). *Teaching for quality learning at university* (4th Ed.). Maidenhead, UK: Open University Press
- Department of Education (2015). *The K to 12 Program*. Philippines. Retrieved from <http://www.deped.gov.ph/k-to-12/about/k-to-12-basic-education-curriculum/>
- Donnelly, R. (2010). Harmonizing technology with interaction in blended problem-based learning. *Computers & Education*, 54(2), 350-359. doi10.1016/j.compedu.2009.08.
- Horn, Michael /b. & Staker, Heather (2011). *The Rise of K-12 blended learning*. Innosight Institute.
- Maly, Ken (2014). *6 Models of blended learning*. Retrieved from <https://www.wlu.ca/spotlight.ken.maly.html>
- Nelson, Regina (2018). *Six Models of Blended Learning*. Retrieved from <https://www.uwplatt.edu/icet-news/six-models-blended-learning>

NMC Red Archive (2012). Ruben Puentedura, Board Member. Retrieved from <http://redarchive.nmc.org/ruben-puentedura-board-member>

Operio, Jennifer H. (May, 2019). Impact assessment of technology to a private college in Bulacan, Philippines: The mediating effect of hybrid approach. Paper presented at 2019 IRES International Conference, Manila, Philippines. IJMAS-IRAJ-DOI15507.

Poon, J., Royston, P., & Fuchs, W. (2010). An examination of the critical factors for developing a successful blended learning teaching method for RICS and CIOB accredited courses. Retrieved from: <https://dro.deakin.edu.au/view/DU:30054279>

Puentedura, R. (2003, July 15). An Introduction [Web log post]. Retrieved from <http://www.hippasus.com/rrpweblog/archives/000001.html>

Puentedura, R. (2014), September 24). SAMR and Bloom's Taxonomy: Assembling the Puzzle [Web log post]. Retrieved from <https://www.graphite.org/blog/samr-and-blooms-taxonomy-assembling-the-puzzle>.

Puentedura, R. (2014, November 12). SAMR: First Steps [Presentation slides]. Retrieved from http://www.hippasus.com/rrpweblog/archives/2014/11/13/SAMR_FirstSteps.pdf

Smyth, S., Houghton, C., Cooney, A., & Casey, D. (2012). Students' experiences of blended learning across a range of postgraduate programmes. *Nurse Education Today*, 32(4), 464-468, doi:10.1016/j.nedt.2011.05.014