

A Comparative Analysis of the Successes and Challenges in Online Teaching at Different Grade Levels During the New Normal Education

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Abstract

The COVID-19 pandemic has brought extraordinary challenges and has affected the education sectors across the globe. In the Philippine education context, to sustain and provide quality education despite the community quarantine, the new normal education was implemented. Henceforward, the adaptation of online classes, as one of the learning modalities implemented in schools, is undeniably a giant leap in the Philippine education system. This study aimed to further understand the Online Distance Learning Modality (ODLM) by comparing perceived levels of performance as well as challenges of teachers across grade levels in the basic education. The study was conducted at Sto. Rosario, Hagonoy, Bulacan, Philippines. Accordingly, the Science teachers serving at different levels, including the Teacher Internship Program, have excellent profiles and perceived levels of success in online teaching. However, they also encounter challenges in online teaching. Moreover, there is no significant difference in terms of their profiles, levels of success and challenges in online teaching. These results imply that the upskilling and reskilling of teachers on digital learning and handling different learning modalities should continue. There must also be a review of the persisting challenges in online teaching and provide needed materials to help the teachers in the online learning modality.

Key Words: Online learning, Success and Challenges of Teachers, Philippines, New Normal Education

Introduction

The COVID-19 pandemic has brought extraordinary challenges and has affected the educational sectors across the globe. Every country is presently implementing plans and procedures aimed at ending the pandemic. In the Philippine educational context, to sustain and provide quality education despite the community quarantine, the new normal education was implemented.

Consequently, the Basic Education Learning Continuity Plan for School Year 2020 -2021 pursuant to DepEd Order no. 12 s. 2020 stressed out that teachers and school leaders must be capacitated to implement and manage the adoption of multi-modal learning delivery models based on their readiness assessment results, technology resources map and implementation plans. They were introduced to a range of delivery modalities that they can utilize depending on the context of their respective communities and the situations of learners and teachers. Tools and mechanisms were also provided for them to make informed decisions on appropriate learning delivery mode for their context. Context includes geographical conditions, access to delivery platforms readiness.

Thus, in order to provide quality education despite of the challenges of new era of learning, school administrators and teachers need to conduct and attend series of training on various topics under the Learning Action Cells (LAC). Also, the DepEd organized trainings to help them keep up with the demands of the new normal through free professional development training designed to provide teachers with essential knowledge and skills on digital literacy, blended learning, and 21st century learning methods.

The era of technology presents advancement of information communications technology (ICT) and internet. Hence, teachers can easily retrieve resources for their lessons. The challenge is on how to provide and deliver quality education amidst exceptional times, like the COVID-19 pandemic, and on what extent educators are going to become prepared when another crisis comes in the future.

Therefore, pedagogy must keep up with ICT and current events to stay relevant and meaningful. Hence, educators are expected to continuously engage in professional development programs to be able to provide quality education for all which has been emphasized under the new normal education.

Henceforward, the adaptation of online classes, as one of the learning modalities implemented in schools, is undeniably a giant leap in the Philippine education system. Whether equipped or not, the public schools had to embrace this new modality. Martin (2019) revealed that faculty attitudes on the importance of online teaching competency and their perception of their ability play a major role in how faculty approach online teaching goals, tasks, and challenges. Studies of online teaching competencies are important, as they provide information about how online faculty might be trained and supported by professional development initiatives in higher education institutions. Accordingly, Sihombing and Fatra (2021) also reported that the students'

difficulty was also caused by the teacher factor. A teacher must overcome all the problems that occur in online learning responsively so that the learning continues to achieve the targets set.

The study of Choi, Robb, Mifli, and Zainuddin (2021) provided recommendation for the improvement of online classes and blended learning. The use of student focus groups gives the research an alternative perspective with which to assess the satisfaction level, success, and quality of online learning programs during the COVID-19 pandemic. Results from the focus groups showed that for the success of online learning to become a reality, blended education should be considered to bolster learning. Further, results showed that communication between teachers and students remains a very important factor for success, regardless of the class category incorporated.

A number of quantitative research studies were conducted about online learning and its significance during the pandemic. Based from the review, most of the quantitative researches conducted in the five Southeast Asian nations were about the status or condition of resources required in online learning (i.e. electronic gadget) and perceptions of learners, teachers, parents and school administrators on the learning modality based from surveys that feature self-assessment tools.

However, the researcher found more qualitative research studies on the abovementioned topic. Still, quantitative research is quite significant in assessing emerging topics due to the development of the fight against COVID-19. Future quantitative research studies may focus on vaccination rate of learners, schools' participation in face-to-face classes and involvement of learners, parents and other stakeholders in the transition from pure online to physical classes.

In light of the abovementioned pieces of information, the researcher would like to contribute to further understanding the Online Distance Learning Modality (ODLM) by comparing perceived levels of performance as well as challenges of teachers across grade levels in the basic education. The study was conducted at Sto. Rosario, Hagonoy, Bulacan, Philippines where both primary and secondary schools are situated. In addition, a teaching internship program employing online learning is taking place in these schools. Accordingly, the researcher involved teachers handling Science classes across grade levels. The identification of the given variables can help understand the gaps in the implementation of online classes which can lead to more relevant solutions in improving the teaching and learning process in the locality. Apparently, even after this pandemic, due to the ease of access to information and trainings conducted, online learning may become a regular part of the teaching and learning process of the future.

Research Questions

The main problem of the study is “How are the level of success of Science teachers in online classes at different grade levels be examined comparatively at Sto. Rosario, Hagonoy, Bulacan?”

Specifically, this study sought to answer the following:

1. What is the profile of Science teachers handling online classes in:
 - 1.1. senior high school;
 - 1.2. junior high school;
 - 1.3. elementary; and
 - 1.4. teaching internship program?
2. What is the level of performance in online classes of Science teachers based on the 7e’s of learning?
3. How are the challenges in online teaching be described in terms of:
 - 3.1. lesson presentation;
 - 3.2. learning activities;
 - 3.3. learning resources management;
 - 3.4. assessment of learning;
 - 3.5. bridging learning gaps; and
 - 3.6. information communications technology?
3. Is there a significant difference in the perceived levels of performance and challenges among the different levels?
4. What pedagogical implications can be drawn from the results?

Conceptual Framework

The study was based on the need to conduct online classes across grade levels and the possible different trainings and exposure to ICT of teachers reflected in the reviewed pieces of literature. The level of success of Science teachers in online classes was assessed using two variables- performance and challenges.

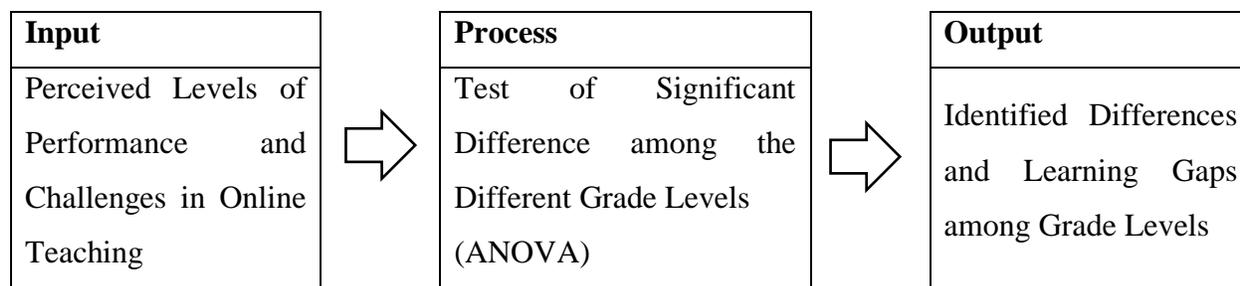


Figure 1. The paradigm presents the IPO model that was utilized in the study.

The perceived levels of performance of teachers were measured based on the 7e's of learning while the challenges were characterized based on the key components of teaching and learning under the online learning modality.

Materials and Methods

The research utilized quantitative research approach with Analysis of Variance (ANOVA) to determine the significant differences in terms of levels of performance and challenges of Science teachers in the elementary, junior high school, senior high school and teaching internship program. Table 1 presents the respondents of the study.

Table 1. The Respondents of the Study

Grade Level	Number of Respondents
Teaching Internship Program	4
Elementary	5
Junior High School	14
Senior High School	12
Total	35

The researchers adopted a 7- item self-assessment tool based on the 7Es Learning Cycle Model from the study of Perez, Sabaulan and Plete (2021) while the challenges were characterized using a self-made questionnaire based on the key components of online teaching. Furthermore, the two tools utilized featured the 5- point Likert scale. The instruments are found in the appendices.

The scaling systems are shown in the tables below.

Table 2. Scaling System for the Perceived Level of Performance of Teachers

Likert Scale	Instrument Rating	Mean Bracket	Descriptive Interpretations for the Level of Performance in Online Classes
5	Strongly agree	4.50-5.00	Very High
4	Agree	3.50-4.49	High
3	Neutral	2.50-3.49	Moderate
2	Disagree	1.50-2.49	Low Level
1	Strongly Disagree	1.00-1.49	Very Low Level

Table 3. Scaling System for the Challengers in Online Teaching

Likert Scale	Instrument Rating	Mean Bracket	Descriptive Interpretations for Challenges in Online Teaching
5	Always	4.50-5.00	Very Difficult
4	Frequently	3.50-4.49	Difficult
3	Uncommon	2.50-3.49	Moderate
2	Rarely	1.50-2.49	Easy
1	Never	1.00-1.49	Very Easy

The data which were gathered in the study were tallied, tabulated, and processed through the computer system using the Statistical Package for Social Sciences (SPSS). To interpret raw scores of the predictor and criterion variables, the equivalents in Table 1 were used.

Results and Discussion

Table 4. Profile/ Preparation of Science Teachers for Online Classes

No.	Indicators	Teaching Internship Program n=4		Elementary n=5		Junior High School n=14		Senior High School n=12	
		M	D	M	D	M	D	M	D
1	I received sufficient training in handling online classes.	4.50	VH	3.60	H	4.36	H	4.00	H
2	I look for means to improve my competencies in handling online classes.	5.00	VH	4.20	H	4.57	VH	4.42	H
3	I am confident teaching online learners.	4.50	VH	4.20	H	4.36	H	4.33	H
4	I develop learning materials for online classes.	5.00	VH	4.20	H	4.14	H	4.08	H
5	I can perform the different types of assessment during online class.	4.25	H	4.00	H	3.86	H	4.00	H
	Overall Mean	4.65	VH	4.04	H	4.26	H	4.17	H

M- Mean, D- Description

VH- Very High, H- High, M- Moderate, LL- Low Level, VL- Very Low Level

Table 5. Comparison of Profiles of Science Teachers in Different Levels

ANOVA					
Profile/ Preparation in Handling Online Classes					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	.941	3	.314	1.397	.262
Within Groups	6.963	31	.225		
Total	7.904	34			

As shown in the table above, the computed p- value is 0.262 which is greater than the 0.05 level of significance. This proves that there is no significant difference among the profiles of Science teachers across different levels. In addition, there is no need to conduct a Post Hoc Test.

Table 6. Perceived Levels of Performance in Online Teaching

No.	Indicators	Teaching Internship Program n=4		Elementary n=5		Junior High School n=14		Senior High School n=12	
		M	D	M	D	M	D	M	D
1	I am acquainted with the methods of eliciting prior understanding of learners.	4.50	VH	3.60	H	4.21	H	4.25	H
2	I can select the best ways of engaging learners' attention in the online learning environment.	4.75	VH	3.80	H	4.43	H	3.92	H
3	I am capable of guiding learners in exploring concepts in lessons under the most essential learning competencies.	4.50	VH	4.20	H	4.43	H	4.17	H
4	I can help students in explaining results of their explorations of ideas and concepts in lessons.	4.75	VH	4.20	H	4.29	H	4.42	H
5	I can facilitate students in elaborating their learnings through independent practice and activities.	4.50	VH	4.00	H	4.36	H	4.33	H
6	I can assist learners in extending their practice of transfer of learning by applying what they learned in challenges and situations presented in the learning modules.	4.25	H	4.00	H	4.36	H	4.25	H
7	I am familiar with ways of evaluating students' progress in the online learning modality.	4.25	H	4.00	H	4.21	H	4.33	H
Overall Mean		4.50	VH	3.97	H	4.33	H	4.24	H

M- Mean, D- Description

VH- Very High, H- High, M- Moderate, LL- Low Level, VL- Very Low Level

Table 7. Comparison of the Perceived Levels of Performance in Online Teaching

ANOVA					
Perceived Success in Online Classes					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	.710	3	.237	1.276	.300
Within Groups	5.751	31	.186		

Total	6.461	34			
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As shown in Table 7, the computed p- value is 0.300 which is greater than the 0.05 level of significance. This proves that there is no significant difference among the perceived levels of performance in online classes of Science teachers across different levels. In addition, there is no need to conduct a Post Hoc Test.

Table 7. Levels of Challenges in Online Teaching

No.	Indicators Challenges in...	Teaching Internship Program n=4		Elementary n=5		Junior High School n=14		Senior High School n=12	
		M	De	M	De	M	De	M	De
1	Presenting my lesson online	4.75	VD	4.00	Di	4.14	Di	4.00	Di
2	Conduct learning activities during online class	4.75	VD	4.40	Di	4.07	Di	4.00	Di
3	Looking for or developing learning materials appropriate for an online class	5.00	VD	4.20	D	3.93	D	3.83	D
4	Administering assessment of learning	4.00	VD	4.40	D	4.07	D	3.92	D
5	Bridging learning gaps (conducting remedial activities)	4.00	VD	4.20	D	3.71	D	3.75	D
	Overall Mean	4.50	VD	4.24	D	3.99	D	3.90	D

M- Mean, De- Description

VD- Very Difficult, Di- Difficult, M- Moderate, Easy, VE- Very Easy

Table 8. Comparison on the Levels of Challenges in Online Teaching

ANOVA					
Challenges in Online Teaching					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1.318	3	.439	.751	.530
Within Groups	18.149	31	.585		
Total	19.467	34			

As shown in Table 8, the computed p- value is 0.530 which is greater than the 0.05 level of significance. This proves that there is no significant difference among the challenges in online

teaching of Science teachers across different levels. In addition, there is no need to conduct a Post Hoc Test.

Conclusions

Science teachers serving at different levels, including the Teacher Internship Program, at Sto. Rosario, Hagonoy, Bulacan under Hagonoy West District of the Schools Division of Bulacan have excellent profiles and perceived levels of success in online teaching. However, they also encounter challenges in online teaching. Moreover, there is no significant difference in terms of their profiles, levels of success and challenges in online teaching.

Recommendations

1. Continue the upskilling and reskilling of teachers on digital learning and handling different learning modalities.
2. Review the persisting challenges in online teaching and provide needed materials to help the teachers in the online learning modality.
3. The conduct of similar or parallel studies are encouraged to verify and further substantiate the results of this undertaking.

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Appendix A
Survey on the Profile of Science Teachers Handling Online Classes

Name: _____

Date: _____

Position: _____

Grade/s Taught: _____

Directions: Please rate your degree of agreement with the following statements. Use the scale below.

- 5 – Strongly agree
- 4 – Agree
- 3 – Neutral
- 2 – Disagree
- 1- Strongly Disagree

Concept	5	4	3	2	1
I received sufficient training in handling online classes.					
I look for means to improve my competencies in handling online classes.					
I am confident teaching online learners.					
I develop learning materials for online classes.					
I can perform the different types of assessment during online class.					

Appendix B
Survey on the Teacher's Perceived Performance in the Online Learning Modality

Name: _____

Date: _____

Position: _____

Grade/s Taught: _____

Directions: Please rate your level of performance in the online learning modality in terms of the accomplishment of the following cognitive process dimensions based on the Revised Bloom's Taxonomy of Educational Objectives. Use the scale below.

- 5 – Strongly agree
- 4 – Agree
- 3 – Neutral
- 2 – Disagree
- 1- Strongly Disagree

Concept	5	4	3	2	1
I am acquainted with the methods of eliciting prior understanding of learners.					
I can select the best ways of engaging learners' attention in the online learning environment.					
I am capable of guiding learners in exploring concepts in lessons under the most essential learning competencies.					
I can help students in explaining results of their explorations of ideas and concepts in lessons.					
I can facilitate students in elaborating their learnings through independent practice and activities.					
I can assist learners in extending their practice of transfer of learning by applying what they learned in challenges and situations presented in the learning modules.					
I am familiar with ways of evaluating students' progress in the online learning modality.					

Appendix C
Survey on the Teacher's Challenges in Online Teaching

Name: _____

Date: _____

Position: _____

Grade/s Taught: _____

Directions: Please rate how frequent you experience problems in the given aspects of online teaching. Use the scale below.

- 5- Always
- 4- Frequently
- 3- Uncommon
- 2- Rarely
- 1- Never

Concept	5	4	3	2	1
Presenting my lesson online					
Conduct learning activities during online class					
Looking for or developing learning materials appropriate for an online class					
Administering assessment of learning					
Bridging learning gaps (conducting remedial activities)					