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Curriculum Implementation Facilitating and Hindering Factors: The Philippines Context

Randy L. Palestina[1], Agripina D. Pangan[2], Inero V. Ancho[3]

[12]De La Salle Lipa, Lipa City, Batangas, Philippines

[3]Philippine Normal University, Manila, Philippines

ancho.iv@pnu.edu.ph

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Abstract

This study focuses on the perceptions of Filipino teachers and school administrators of the different facilitating and hindering factors in curriculum implementations based on their practices and the challenges they have experienced. Using descriptive research employing quantitative design, 324 respondents were surveyed using self-made questionnaires anchored on Ecological System Theory (EST) by Bronfenbrenner (1979). The respondents from the grade school, junior high school, and senior high school expressed their agreement on the identified factors that facilitate and hinder curriculum implementation in the microsystem and chronosystem, while respondents from the college expressed their strong agreement on the two levels under the mesosystem and exosystem. At the macrosystem level, all of the respondents strongly agreed on all the items, but the highest level of agreement was evident with the respondents from the senior high school. A comparison of one-way ANOVA results revealed the respondents' level of agreement on the facilitating and hindering factors of curriculum implementation based on the five levels of EST. Scrutiny on the facilitating and hindering factors in the curriculum implementation processes provides a springboard for leaders in the education sector to align programs and policies anchored on experiences and practices in the classroom along with research-based inputs.

Keywords: Curriculum implementation; ecological systems approach; facilitating and hindering factors

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INTRODUCTION

Curriculum implementation embodies the actual delivery of the blueprint of the curriculum in the classroom setting. This phase manifests the level of engagement of both teachers and students in the teaching and learning process. Furthermore, it necessitates the degree of commitment of the teachers in carrying out what has been planned to ensure that the desired results would be achieved.

There has been a spate of interest in the conduct of study focusing on curriculum implementation due to its relevance in the educational landscape around the world. The majority of these studies focused on the different factors that influence or affect the implementation of the curriculum. These are identified as either facilitating or hindering factors in curriculum implementation. On the first hand, one of the common findings in the different research emphasized that curriculum implementation should provide benefits to the students. These benefits are considered one of the many facilitating factors. For example, Sarmiento and Orale, (2016) conducted a review of the literature about the curriculum implementation in three countries, namely Japan, the US, and the Philippines, and found out that the basic tenet of the curriculum, particularly for the senior high school, is to prepare the students to enter into college or university work. Viro et al. (2020), after carefully examining the PBL curriculum in Finland, asserted that the development of tertiary student's knowledge was the most important goal in the implementation of the curriculum

On the second hand, there were findings in the different research that hindering factors were identified in students' concerns. For instance, the choice of the learning activities that are implemented in the classroom posed as a hindering factor in curriculum implementation. Lin et al. (2015) identified learning activities as one of the gaps in the implementation of Taiwan's secondary technology curriculum. Guerrero (2019) identified a lack of engagement of students and a lack of understanding of the content to better understand English in the tertiary curriculum implementation in China. In Turkey, Gelen and Aliş

(2019) reported that the different perception between students and teachers on curriculum implementation was considered one of the factors that affect the implementation.

Similarly, Zhan et al. (2016) reported that during the implementation of the New Senior Secondary Curriculum in Hong Kong in 2009, the teachers adapted their teaching approaches and teaching materials as they were needed in the implementation. Good and examination-oriented practices were evident in the study. Also, Kanellopoulou and Darra (2018) asserted that teachers positively influenced the planning and preparation of the lesson and gained useful and valuable knowledge during the process of training and implementation of the lesson study. This lesson study was a part of the curriculum implementation in the Secondary Education School in Greece.

Moreover, Moosa and Shareefa (2019), after carefully analyzing the implementation of the differentiated instructions as one of the important innovations in curriculum implementation in a chosen school in the Maldives, reported that teacher's efficacy was strengthened and their knowledge played a significant impact in the implementation of the differentiated instruction. In Thailand, Rattanaprom (2019) studied the results of Research-Based Learning as a way of implementing a curriculum and found out that the positive attitude of the master teachers resulted in better school performance and collaboration facilitated effective implementation. Azukas (2019) figured out that the teacher's level of self-efficacy was developed, and they improved in the area of planning and risk-taking after participating in the personalized learning, one of the approaches to develop teacher's effectiveness in curriculum implementation in the United States. True enough, these findings contribute to the premium of professional and personal growth and development as this creates a favorable impact on student achievement while upholding collaboration and participation among teachers and administrators.

It can be noted that the teacher's effectiveness and efficiency in the implementation of the curriculum could be attributed to the initiatives of the school for the teacher's training and development. This is essentially supported by different studies around the world like the study of Zhan et al. (2016) in Hongkong, the report of Fessehatsion (2017) in Eritrea, Moosa and Shareefa (2019) in Maldives, Jonyo, and Jonyo (2019) in Kenya, Rattanaprom (2019) in Thailand, and Molebash, Lee, and Heinecke (2019) in the USA.

At the school, district, regional, and national levels, findings of the different research on curriculum implementation identified significant factors that facilitate and hinder implementation. Fessehatsion (2017) reported that based on the teachers' notion, the principals and school administrators were implementing the curriculum as mandated by the Ministry of Education in Eritrea by exerting proper leadership style, mobilizing resources, implementing school-based training, and facilitating appropriate communication protocol. This is almost identical to the findings of the study conducted by Kimosop (2018) in Kenya, the study of Molebash et al. (2019) in the United States, and Mulenga and Mwanza (2019) in Zambia. Comparing the curriculum implementation in Ethiopia and Australia, Meleta and Zhang (2017) although found differences in the factors that facilitated successful implementation as; (a) taking into consideration the results of international research in curriculum planning, (b) organizing content standards, (c) testing and trialing of the curriculum design, and (d) close monitoring and evaluation strategies, similarities were identified on needs assessments and adoption of the constructivist approach.

However, the hindering factors in the school, district, regional and national levels were determined in the study conducted in Iran by Ghazavi et. al, (2016) where they identified the existing challenges involved in the development of academic discipline based on the views of the teachers. They found out that the structural and management challenges are hindering factors to move to the decentralization of the discipline necessary in the implementation of the curriculum. While Rahman, Sarawak, and Kaur (2018) identified the mismatch between curriculum intention and implementation of the Communicative Language Teaching Curriculum, teacher's participation was not considered in the curriculum planning, and the traditional practices of the teachers were considered barriers in the implementation. Similarly, Lewis, Liace, and Braun (2019) identified the teachers' perceptions on the mapping of the curriculum to implement standards-based instruction and assessment in the United States as hindering factors to include teacher's limited capability in implementing the curriculum, selected participation in curricular programs, not given space to engage and create content, and no time and guidance provided to teachers to make decisions in implementation. Furthermore, Nevenglosky, Cale, and Aguilar (2019) identified other hindering factors in the curriculum implementation as; (a) need of the teachers for additional information concerning the importance of the program and the curriculum, (b) demands on additional working time for teachers which would be taken from their time, and (c) development of fidelity through administrator's support. Cheung and Kong (2011) reported that the teacher's workload was one of the major hindering factors in curriculum implementation in the same country. Besides, Ziebell and Clarke (2018) conducted a study in Australia focusing on how the goals of the

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mandated curriculum are interpreted for planning, instruction, and assessment and found out complexities and dynamism of the processes in the interpretation of the mandated goals at the classroom level.

In the Philippines, curriculum implementation is also one of the most researched topics in the field of education especially because the country is currently implementing the K to 12 curricula in basic education. The K-12 law which was implemented through RA 10533 otherwise known as "Enhanced Basic Education Act of 2013," mandated the additional two years for basic education. The additional two years are intended for the mandatory senior high school as grades 11 and 12 before a student is accepted to college. Hence, the implementation of the Kto12 curriculum impacts both basic education and tertiary education. DepEd Order No. 13 s. 2012 articulates the implementation guidelines of the Enhanced Basic Education Curriculum emphasizing the curriculum design, the desired outcomes of Grades 1 to 10 program, different learning areas, medium of instruction, time allotment, and class programming, and assessment and rating of learning outcomes. This implementation has become the major focus of the different research in the country both qualitatively and quantitatively.

Findings of the different studies in the Philippines also provide substantial considerations on curriculum implementation in the different levels. In the context of the classroom level or the microsystem in the Ecological Systems Theory, findings revealed that the teacher's training and development is still the most essential element in the successful implementation of the curriculum reforms and thus inadequacy or lack of teacher's training and preparation hinders the curriculum implementation (Sarmiento & Orale, 2016; Combalicer & Rosal, 2016; Ednave et al., 2018; Alegado, 2018; Rogayan & Villanueva, 2019; Flores, 2019; Mangali et al., 2019). Findings of the studies about the students include essential development of foundational skills like that in Mathematics (Roman, 2019), conflict on the perceptions of the teachers and students in classroom-level implementation (Mangali et al., 2019), excessive academic loads for the students, (Ednave et al., 2018) lack of opportunities for student's authentic learning and integration of lesson in a real-life context (Rogayan & Villanueva, 2019).

At the school level, there are also research findings that emphasize the importance of program administration and leadership, and management of resources like buildings and facilities. Roman (2019) argued that the adherence of the educational institution to the mandate of curriculum implementation in terms of program administration, resources, facilities, and equipment facilitates effective implementation. Acosta and Acosta (2016) reported that higher education institutions' readiness for the new structure as well as ensuring a smooth transition and successful implementation of the new program could be measured in terms of eligibility, staffing guidelines, course streamlining, reclassification of teachers, curriculum realignment among others.

It can be gleaned from the different findings of both local and international studies that curriculum implementations could be successfully implemented when facilitating factors are used as strategies and when hindering factors are not addressed, the result would be otherwise. Hence, these findings provide the basis for the conduct of this study which asserts the extent to which these facilitating and hindering factors were perceived and experienced by the respondents in the context of their curriculum implementation practices.

This study is anchored on the Ecological System Theory (EST) by Bronfenbrenner (1979). The theory posits how the school community (in this research the teachers and administrators in particular) is drawn into numerous 'ecological systems' as a mechanism to address the various needs of the students. Attention is central to the experience when the students are exposed to various environments. In the context of this research, the levels of the EST were used to determine the different factors that facilitate and hinder curriculum implementation. These five levels pertain to; (a) the microsystem levels which pertains to the classroom practices, (b) the mesosystem which refers to the school-level activities, (c) the Exosystem or the policy and external support, (d) the macrosystem of the educational beliefs and values, and (e) chronosystem or the time factor in curriculum implementation. In each of the five levels of the system, different factors that facilitate and hinder curriculum implementation could be identified. In the report prepared by Ariel Wagner for the Organization for Economic Co-operation and Development (OECD), Ecological Systems Theory (EST) was used in the context of educational systems change. The different facilitating and hindering factors were contextualized for effective curriculum change. In the study of Aman (2017) the EST was used as one of the bases for identifying the practices and impact of a transformative community school.

In this study, EST is used as the basis for classifying the different factors that facilitate and hinder the curriculum implementation of the teachers and administrators based on the practices and the challenges they have experienced. The study affirms the extent to which the different facilitating and hindering factors are perceived and experienced by the respondents in the context of their curriculum implementation practices and challenges. This research purports to answer the following research questions:

1. What is the level of the respondents' agreement on facilitating and hindering factors in the five levels of ecological systems theory?
2. Is there a significant difference in the respondents' perceptions of facilitating and hindering factors in the five levels of ecological systems theory when the respondents are grouped according to their profile?

The study is conducted using the online survey during the period when the entire Luzon was placed under the enhanced community quarantine due to the COVID-19 pandemic. The respondents of the online survey were teachers and administrators who expressed willingness to participate in the survey. These teachers and administrators were from different grade levels both from private and public schools in Luzon. The researchers found it deemed necessary to include all levels of education to capture the depth and breadth of the context of curriculum implementation. As an initial attempt of a larger study, a general inquiry on curriculum implementation practices from the primary and secondary to tertiary levels could provide beginning discourse, as specific levels could be particularly scrutinized in future research.

METHODOLOGY

This study utilized a descriptive quantitative design. This design enabled the researchers to collect quantitative data about the identified issue and phenomenon on curriculum implementation. Through the data gathered, the issue and phenomenon was quantified and was subjected to statistical treatment to test, support, or refute the claims of the study. As emphasized by Apuke (2017) quantitative design describes the method of explaining an issue or phenomenon through the gathering of data in a numeral form that could be utilized and analyzed using statistical techniques to answer questions like who, how much, what, where, when, how many, and how. This design is the most appropriate for this study since the aim is to test the theory underlying the issues and phenomenon about the factors that facilitate and hinder curriculum implementation using the quantitative data being gathered.

The study was conducted using an online survey. A self-made survey questionnaire was prepared in the Google form and the link was shared with the respondents. The online survey was facilitated for a week until the desired number of respondents was reached. Respondents in this study are teachers and school administrators from different private and public schools in the different parts of Luzon, one of the three major islands of the Philippines. Total enumeration is used because all the respondents who willingly participated in the online survey were considered. A total of 324 respondents participated in the online survey.

Table 1
Profile of Respondents and the Percent Distribution

PROFILE	PERCENT DISTRIBUTION			PROFILE	PERCENT DISTRIBUTION		
Gender				***Years in Service***			
Male	22%			Faculty	90.12%		
Female	78%			Private School		20.37%	
Faculty	90.12%			1-9 years			4.94%
Grade School		39.20%		10-19 years			4.94%
Private			12.96%	20-29 years			9.87%
Public			26.24%	30 years and more			0.62%
Junior High School		31.17%					
Private			1.54%	Public School		69.75%	
Public			29.63%	1-9 years			45.06%
Senior High School		15.74%		10-19 years			14.81%
Private			5.25%	20-29 years			7.41%
Public			10.49%	30 years and more			2.47%
College		4.01%					
Private			1.23%	Administrator	9.88%		
SUCs			2.78%				
SUCs			2.78%	Private School		6.48%	
Administrators	9.88%			1-9 years			0.31%
Grade School		4.32%		10-19 years			3.08%
Private			2.78%	20-29 years			2.47%
Public			1.54%	30 years and more			0.62%
Junior High School		2.47%					
Private			1.23%	Public School		3.40%	
Public			1.24%	1-9 years			0.93%
Senior High School		3.09%		10-19 years			1.23%
Private			1.85%	20-29 years			0.62%
Public			1.24%	30 years and more			0.62%

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The survey questionnaire is self-made and was developed based on the review of the related literature and studies. The self-made questionnaire is composed of six essential parts. The first part contains the rationale of the survey and the consent to participate in the survey, the second part contains the respondents' profile, the third part contains the five questions on facilitating and hindering factors at the microsystem level, the fourth part contains the six questions on facilitating and hindering factors in the mesosystem level, the fifth part contains the eight questions on facilitating and hindering factors in the exosystem level, and the sixth part contains the four questions for macrosystem level and chronosystem.

The validity and reliability test of the self-made questionnaire was established. The face validity of the questionnaire was determined using Cohen's Kappa Index (CKI). Experts in the field of curriculum implementation were requested to rate the items with "yes" or "no" and the result was subjected to the Kappa formula using the excel. The CKI computed value is 0.758 which represents a substantial agreement among the researchers and the raters (Landis & Koch, 1977 in Kundel & Polansky, 2003). Likewise, the content validity of the self-made questionnaires was determined following Lawshe's Content Validity Ratio (CVR) and the computed mean CVR of all the items in the questionnaires is 0.99 indicating that the items are considered valid (Lawshe, 1977 in Taherdoost, 2018).

The computed reliability test for all the items in the questionnaire using the Cronbach Alpha in SPSS is 0.935 while the computed reliability test results for the items about the facilitating and hindering factors in the five levels of Ecological Systems Theory were; (a) items in the microsystem with an alpha value of 0.700, (b) items in the mesosystem with an alpha value of 0.843, (c)items in the exosystem with an alpha value of 0.890, (d) items in the macrosystem with an alpha value of 0.787, and (e) items in the chronosystem with an alpha value of 0.784. The computed alpha value signified that the items in the self-made questionnaires were considered highly reliable for this study.

The study used simple percentages, means, weighted means, standard deviation, and a one-way ANOVA. The Scheffé test was used as the post hoc test after running the one-way ANOVA to determine which among the groups exhibited significant differences. As argued by Salkind (2012), the Scheffé test is one of the oldest yet considered as the most effective post hoc tests to use especially when a comparison is made to more than the pairwise differences.

The data gathering procedures followed by the researchers include: (a) development and validation of the survey questionnaire, (b) preparing the google forms for the online survey, (c) conducting the initial test to establish reliability index, (d) finalizing the online survey questionnaires based on the face validity test, content validity test, and reliability test, (e) sharing of the link of the google forms to the target respondents to gather data, and (f) processing and analyzing the data.

The research ensures conformity with research ethics. There was no harm or benefit that the respondents will get upon participation with the online survey. The researchers declared potential benefits including but not limited to compliance to requirements of the course and potential publication of the research findings. The respondents were assured of anonymity since the names and other personal details were not asked in the survey. The profile sought from the respondents shall only be used for the analysis and interpretation of the study. Moreover, the respondents were informed that the survey is not obligatory and they can withdraw at any time if they feel they do not want to continue answering the online survey.

RESULTS AND DISCUSSION

This research presents the perceptions of the Filipino teachers and school administrators on the different facilitating and hindering factors on curriculum implementations based on practices and the challenges they have experienced. The following discussions present the results based on the provided research questions.

RQ#1. What is the teacher's level of agreement on facilitating and hindering factors based on the five levels of Ecological Systems Theory in curriculum implementation?

Table 2 presents the respondents' level of agreement on the provided factors that facilitate and hinders curriculum implementation in the different levels of Ecological Systems Theory.

Table 2
Level of Agreement on Facilitating and Hindering Factors in the Different Levels of Ecological Systems Theory

Respondents	*Microsystem*		*Mesosystem*		*Exosystem*		*Macrosystem*		*Chronosystem*
Grade School	3.471	Agree	3.677	Strongly Agree	3.542	Strongly Agree	3.714	Strongly Agree	3.336	Agree
Junior High School	3.422	Agree	3.600	Strongly Agree	3.517	Strongly Agree	3.664	Strongly Agree	3.345	Agree
Senior High School	3.461	Agree	3.749	Strongly Agree	3.553	Strongly Agree	3.737	Strongly Agree	3.483	Agree
College	3.667	Strongly Agree	3.944	Strongly Agree	3.683	Strongly Agree	3.633	Strongly Agree	3.567	Strongly Agree

As can be seen in the table, the respondents from the grade school, junior high school, and senior high school expressed their agreement on the identified factors that facilitate and hinder curriculum implementation in the microsystem and chronosystem, but it is notable to observe that the respondents from the college expressed their strong agreement on the two levels. All of the respondents perceived and strongly agreed on all items under the mesosystem and exosystem, but it is noticeable that the respondents from the college have the highest level of agreement on the two levels. At the macrosystem level, all of the respondents strongly agreed on all the items, but the highest level of agreement was evident with the respondents from the senior high school.

Table 2.1 presents in detail the rating of the respondents on the different facilitating and hindering factors at the microsystem level.

Table 2.1.
Rating of Respondents on Facilitating and Hindering Factors in the Microsystem Level

FACILITATING AND HINDERING FACTORS	FACULTY		ADMINISTRATORS	
Teachers commitment to curriculum reform likely change their classroom practices to enable successful curriculum implementation.	3.654	Strongly Agree	3.688	Strongly Agree
The extent to which teachers believe that a curriculum change reflects best practices for teaching and learning and will lead to desired student outcomes influence curriculum implementation in the classroom-level.	3.603	Strongly Agree	3.500	Strongly Agree
Teacher's misconceptions on curriculum content and pedagogy hinders curriculum implementation in the classroom level.	3.421	Agree	3.500	Strongly Agree
Teacher's workload negatively influence the implementation of the curriculum in the classroom level.	3.209	Agree	3.344	Agree
Lack of time hampers the successful implementation of curriculum in the classroom level.	3.411	Agree	3.375	Agree

It can be seen that both the faculty and administrators strongly agree that a teacher's commitment to curriculum reforms would enable the teachers to change classroom practices and the belief that curriculum change brings about best practices would lead to the attainment of the desired learning outcomes. Although both the faculty and administrators agree that the teacher's workload negatively influences the implementation of the curriculum at the classroom level, the level of the agreement provides the lowest mean. Bourke et al. (2020) conducted a study in Ireland and reported that the curriculum nurtures a positive climate for secondary students to develop a sense of belongingness which significantly contributes to the ease of curriculum implementation.

Both the teachers and administrators do not consider this factor to be the most critical in the success of the curriculum implementation at the classroom level. From another perspective, Bongco and David (2020) examined the lived experiences of the teachers as curriculum implementers and reported that teachers are confused yet appreciative, frustrated yet flexible, and powerless yet vital.

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Table 2.2.
Rating of Respondents on Facilitating and Hindering Factors in the Mesosystem Level

FACILITATING AND HINDERING FACTORS	FACULTY		ADMINISTRATORS	
Support of the school leaders through allocated time in planning and professional development result to successful implementation of curriculum reform.	3.784	Strongly Agree	3.781	Strongly Agree
School-level resources that benefits curriculum implementation include time for professional development around the new curriculum.	3.692	Strongly Agree	3.656	Strongly Agree
Strong collaborative team cultures can also support classroom-level implementation the curriculum.	3.743	Strongly Agree	3.594	Strongly Agree
Lack of school leadership support hampers curriculum implementation.	3.586	Strongly Agree	3.656	Strongly Agree
Lack of time to plan and prepare for curriculum implementation is a barrier to the implementation of the curriculum.	3.647	Strongly Agree	3.656	Strongly Agree
Not enough funding, instructional and technology materials, or personnel can weaken curriculum implementation efforts.	3.620	Strongly Agree	3.538	Strongly Agree

It can be seen in the table that the respondents strongly agree on the items on the facilitating and hindering factors in the mesosystem level. However, it is significant to note that the highest level of agreement of both the faculty and administrators is on the item of providing support by the school leaders through allocated time in planning and professional development which facilitates successful curriculum implementation. The lowest level of agreement on the faculty pertains to the lack of leadership support which hampers curriculum implementation while on the part of the administrators, the lowest rate of agreement is not enough funding, instructional and technology materials, or personnel the weaken curriculum implementation efforts.

Although the importance of providing support, training, and development essentially facilitates curriculum implementation, inadequacy, or absence of such initiative becomes the hindering factor. As Lin et al. (2015) emphasized, the inadequacy of teacher's training could result in a teacher's problem with teaching methods which influenced the delivery of curriculum content. Rahman et al. (2019) affirmed that the lack of teacher's training impedes curriculum implementation in Bangladesh. Kimosop (2018) reported that lack of support to teachers hinders effective curriculum implementation in Kenya.

Guerrero (2019) identified one of the factors that influenced the implementation of the College English curriculum in China could be addressed by training the teachers to identify student's difficulties in the English course. Besides, the findings of Li and Jones (2019) asserted that teacher's reluctance on updating professional knowledge affected the implementation of the English curriculum in China. In the study of Nawaz and Akbar (2019) in Pakistan, findings revealed that the updating of teacher's strategy in Physics should be facilitated because it is one of the significant factors that hinder curriculum implementation in Punjab.

Table 2.3.
Rating of Respondents on Facilitating and Hindering Factors in the Exosystem Level

FACILITATING AND HINDERING FACTORS	FACULTY		ADMINISTRATORS	
Government and non-governmental organizations can utilize policy instruments such as capacity- building (e.g., professional development) and inducements (e.g., monetary grants) that support higher levels of curriculum implementation.	3.548	Strongly Agree	3.531	Strongly Agree
Professional development provided by government or non-governmental organizations is positively correlated with successful curriculum implementation.	3.592	Strongly Agree	3.406	Agree
External experts, including government officials, professional development providers, and university faculty, is an effective way to provide ongoing professional development and implementation support for successful curriculum implementation.	3.596	Strongly Agree	3.594	Strongly Agree
If government agencies will utilize fiscal resources, such as budget lines and grants, to effectively incentivize front runners of curriculum implementation, it ensures successful curriculum implementation.	3.572	Strongly Agree	3.375	Agree
Alignment across all capacity-building and inducement policy instruments can help facilitate curriculum implementation.	3.562	Strongly Agree	3.594	Strongly Agree
The failure to provide resources, specifically funding for supplies, staff, and professional development, can hinder curriculum implementation.	3.562	Strongly Agree	3.500	Strongly Agree
Policy documents that lay out what the goals and outcomes of the curriculum are without providing clarity on what the reforms should look like in the classroom impede the actualization of the intended curriculum.	3.435	Agree	3.469	Agree
A lack of alignment between policy instruments may also hinder implementation, specifically regarding incompatible accountability systems and completing and revolving reforms.	3.517	Strongly Agree	3.438	Agree

The table shows that the highest level of agreement on the faculty and the administrators in the exosystem level pertains to the external experts as an effective support to provide ongoing professional development for successful curriculum implementation. The lowest rating of the teachers is on the policy documents that lay out the goals and outcomes of the curriculum without clarity on the reforms as a hindering factor for successful curriculum implementation. On the part of the administrators, the lowest rating is the government agency's utilization of financial resources to ensure successful curriculum implementation.

The results echo how school administrators implement and impact programs and policies impact curriculum implementation. As asserted by Alegado (2018), the traditional “principal oriented” nature of leadership and the structural and hierarchical nature of the school system hinders the active involvement of the teachers in curriculum implementation.

Table 2.4.
Rating of Respondents on Facilitating and Hindering Factors in the Macrosystem Level

FACILITATING AND HINDERING FACTORS	FACULTY		ADMINISTRATORS	
When educators generally believe in the underlying principles of curriculum reforms and their broader purpose of better serving students, curriculum implementation is likely to become successful.	3.634	Strongly Agree	3.719	Strongly Agree
Teachers positive beliefs with the curricular reforms influence high levels of curriculum implementation.	3.750	Strongly Agree	3.781	Strongly Agree

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The table shows that both the teachers and administrators consider the highest rating on the teacher's positive beliefs with curriculum reforms as significant drivers of curriculum implementation. This is similar to the results of the assessment on curriculum implementation in Jordan conducted by Al Tawarah (2019), which he found out based on the perspective of the secondary school principals that the emphasis of the curriculum is on the welfare of the students as evidenced by the student's democratic behavior and preference in the school program. It goes with the assumption that with the capacity of teachers to advocate curricular reforms, student welfare is also advanced.

It is also worthy to note a study conducted in Hong Kong by Cheung and Kong (2011) argued that those teachers who have agreed with the curriculum reforms necessarily change their practices in terms of learning and teaching strategies to cater to the primary and secondary learner's diversity, assessment of learning, language proficiency, among others.

Table 2.5.
Rating of Respondents on Facilitating and Hindering Factors in the Chronosystem Level

FACILITATING AND HINDERING FACTORS	FACULTY		ADMINISTRATORS	
Curriculum reforms increase over time.	3.634	Strongly Agree	3.219	Agree
Curriculum reforms that are sustained over time are perceived to influence successful curriculum implementation.	3.411	Agree	3.469	Agree

As can be seen in the table, the faculty and administrators rate the items in the chronosystem differently. The highest rating of the teachers is on the item on the curriculum reforms to increase over time while the administrator's highest rating is on the curriculum reforms that sustained over time are perceived to influence successful curriculum implementation. Fang (2017) compared three schools in China to find out the strategies in implementing curricular reforms and realized that the factors for successful implementation were attributed to the process of contextualizing curriculum reforms based on the capacity and capability of the school, the support provided to teachers through research and development, and adaption of reforms with utmost considerations on values and culture of the school.

RQ#2 Is there a significant difference in the respondents' perceptions of facilitating and hindering factors in the five levels of ecological systems theory according to their profile?

The tables that follow present the one-way ANOVA results comparing the respondents' level of agreement on the facilitating and hindering factors of curriculum implementation based on the five levels of Ecological Systems Theory. Table 3 shows the results according to the respondents' gender, Table 4 shows the results according to the respondents' school unit, Table 5 according to respondents type of school, Table 6 according to the respondents' grade level and type of school, Table 7 according to the respondents type of school and years of service.

a. Respondents' perceptions on the Facilitating and Hindering Factors according to Gender

Table 3 presents the results of the one-way ANOVA comparing the respondents' perceptions on the facilitating and hindering factors in the five levels of ecological systems theory according to gender.

Table 3
One-Way ANOVA and Post Hoc using Scheffé Test on Respondents Perceptions on the Facilitating and Hindering Factors according to Gender

Source of Variation	*SS*	*df*	*MS*	*F*	*P-value*
Between Groups	3.5357	1	3.5357	11.4141	0.0007
Within Groups	2,307.7204	7450	0.3098		
Total	2,311.2560	7451			

Post Hoc using Scheffé Test

Group Pairing	*Observations N*	*M*	*SD*	*T-stat*	*P-value*	*Decision*
Teachers	3.547	3.547	0.0071	3.3785	0.0007326*	Significant
Administrators	3.5992	3.5992	0.0148			

A one-way ANOVA between male and female respondents was conducted to compare their perceptions on the facilitating and hindering factors in the five levels of the Ecological Systems Theory and found out the significant difference at the p<.05 level for the two groups [F(1, 7450)=11.4141, p=0.0007]. Post hoc comparison using the Scheffé results [*t*=3.3785, p=0.0007326] indicated that the mean score for the female respondents (M=3.570, SD=0.0071) was significantly different than the mean score for the male respondents (M=3.5992, SD=0.0148). Specifically, results suggest that the level of agreement of the male teachers on identifying factors that facilitate and hinder curriculum implementation within the five levels of the Ecological Systems Theory is higher compared to the female teacher's level of agreement.

b. Respondents' perceptions on Facilitating and Hindering Factors according to Grade Level

Table 4 shows the comparative perceptions of the teachers and the school administrators on factors that facilitate and hinder curriculum implementation in the different levels of Ecological Systems Theory.

Table 4
One-Way ANOVA and Post hoc using Scheffe Test on the Perceptions of Teachers and School Administrators According to School Unit

Source of Variation	*SS*	*df*	*MS*	*F*	*P-value*
Between Groups	16.8625	3	5.6208	18.2462	8.5978e-12
Within Groups	2,294.3935	7448	0.3081		
Total	2,311.2560	7451			

Post Hoc using Scheffé Test

Group Pairing	*Observations N*	*M*	*SD*	*T-stat*	*P-value*	*Decision*
Grade School	3220	3.5590	0.0093	2.9294	0.0354740	Significant
Junior High School	2530	3.5158	0.0111			
Grade School	3220	3.5590	0.0093	5.5445	9.9281e-07	Significant
College	345	3.7333	0.0242			
Junior High School	2530	3.5158	0.0111	4.1845	0.0005602	Significant
Senior High School	1357	3.5940	0.0171			
Junior High School	2530	3.5158	0.0111	6.8288	4.4623e-10	Significant
College	345	3.7333	0.0242			
Senior High School	1357	3.5940	0.0171	4.1648	0.0006054	Significant
College	345	3.7333	0.0242			

The one-way ANOVA to determine the perceptions of the teachers and administrators on the factors that facilitate and hinders curriculum implementation in the different levels of Ecological Systems Theory indicates a significant difference at the p<0.05 level among the four grade levels [F (3, 7448)=18.2462, p=8.5978e-12]. Post hoc comparison using the Scheffé results [*t*=2.9294, p=0.0354740]

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indicated that the mean score of the-grade school teachers and administrators (M=3.5590, SD=0.0093) is significantly different from the mean score of the teachers and administrators of the junior high school (M=3.5158, SD=0.0111). Besides, the mean score of the teachers and administrators from the college (M=3.7333, SD=0.0242) is also significantly different from the mean score of the grade-school teachers and administrators (M=3.5590, SD=0.0093) with the Schefé results [*t*=5.5445, p=9.9281e-07]. Moreover, the mean score of the teachers and school administrators of the junior high school (M=3.5158, SD=0.0111) is different from the mean scores of both the senior high school (M=3.5940, SD=0.0171) with Schefé results of [*t*=4.1845, p=0.0005602) and the mean score of the teachers and school administrators of the college (M=3.7333, SD=0.0242) with Schefé results of [*t*=6.8288, p=4.4623e-10]. Furthermore, there is a significant difference between the mean score of the senior high school teachers and school administrators (M=3.5940, SD=0.0171) and the mean score of the teachers in the college (M=3.7333, SD=0.0242) with Schefé results of [*t*=4.1648, p=0.0006054].

c. Respondents' perceptions on Facilitating and Hindering Factors according to School Type

Table 5 shows the comparative perceptions of the teachers and school administrators on the facilitating and hindering factors based on the different levels of Ecological Systems Theory according to school type where these respondents are working.

Table 5
One-Way ANOVA and Post Hoc Using Scheffé Test on Respondents' Perceptions on the Facilitating and Hindering Factors according to School Type

Source of Variation	*SS*	*df*	*MS*	*F*	*P-value*
Between Groups	7.0414	3	2.3471	7.5759	4.6766ee-05
Within Groups	2,279.0117	7356	0.3098		
Total	2,286.0531	7359			

Post Hoc using Scheffé Test

Group Pairing	*Observations N*	*M*	*SD*	*T-stat*	*P-value*	*Decision*
Teachers from Public School	1541	3.6067	0.0137	3.6957	0.0034286	Significant
Teachers from Private School	5175	3.5471	0.0075			
Teachers from Public School	1541	3.6067	0.0137	3.4627	0.0074485	Significant
Administrators from Public School	460	3.5043	0.0354			
Administrators from Public School	460	3.5043	0.0354	2.9328	0.0351638	Significant
Administrators from Private School	184	3.6467	0.0408			

The One-Way ANOVA to determine the perceptions of the teachers and school administrators on the factors that facilitate and hinder curriculum implementation in the different levels of Ecological Systems Theory indicates a significant difference at the p<.05 among the types of school namely public and private school [F(3, 7356)=7.5759, p=4.6766e-05]. Post hoc comparison using the Scheffé results [*t*=3.6957, p=0.0034286] indicates that the mean rating of the teachers in the public school (M=3.6067, SD=0.137) differs significantly from the mean rating of the teachers in the private school (M=3.5471, SD=0.0075). There is also a significant difference between the rating of the faculty in public school (MM=3.6067, SD=0.137) and the mean rating of the school administrators in the public school (M=3.5043, SD=0.0354) as evidenced by the Scheffé results [*t*=3.4627, p=0.0074485). Moreover, the mean rating of the school administrators in the public school (M=3.5043, SD=0.0354) significantly differs from the mean rating of the administrators in the private school (M=3.6467, SD=0.0408) based on the result of the Scheffé test (*t*=2.9328, p=0.0351638).

On the first hand, this data reveals that the level of agreement of the teachers in the public school for the facilitating and hindering factors in the five levels of Ecological Systems Theory is significantly higher than the level of agreement of the teachers in the private school and the administrators in the public school. On the second hand, the level of agreement of the administrators in the public and private schools significantly differs from the administrators in the

private school having a significantly higher agreement in the facilitating and hindering factors in the different levels of Ecological Systems Theory.

d. Respondents' perceptions on facilitating and hindering factors according to their Grade Level and the Type of School

Table 6 presents the comparative perceptions of the respondents on the facilitating and hindering factors according to the grade level of their teaching and the type of school they are employed.

Table 6
One-Way ANOVA and Post Hoc Using Scheffé Test on Respondents' Perceptions on the Facilitating and Hindering Factors according to Grade Level and Type of School

Source of Variation	*SS*	*df*	*MS*	*F*	*P-value*
Between Groups	21.8875	7	3.1268	10.8098	1.2623e-13
Within Groups	1,940.3263	6708	0.2893		
Total	1,962.2138	6715			

Post Hoc using Scheffé Test

Group Pairing	*Observations N*	*M*	*SD*	*T-stat*	*P-value*	*Decision*
Grade School Teachers from Public School	1978	3.5480	0.0119	3.7574	0.0492844	Significant
College Teachers from SUCs	207	3.6957	0.0321			
Junior High School Teachers from Public School	2231	3.5052	0.0118	5.1082	0.0004928	Significant
Senior High School Teachers from Private School	414	3.6522	0.0263			
Junior High School Teachers from Public School	2231	3.5052	0.0118	5.3977	0.0001398	Significant
Senior High School Teachers from Public School	759	3.6271	0.0194			
Junior High School Teachers from Public School	2231	3.5052	0.0118	4.0893	0.0193807	Significant
College Teachers from Private School	92	3.7391	0.0405			
Junior High School Teachers from Public School	2231	3.5052	0.0118	4.8749	0.0012699	Significant
College Teachers from SUCs	207	3.6957	0.0321			

There is a statistically significant difference based on the One-Way ANOVA test at p <.05 level between the perceptions of the respondents on the facilitating and hindering factors on the different levels of Ecological Systems Theory according to the grade level they are teaching and the type of the school they are employed [F (7, 6708)=10.8098, p=1.2623e-13]. Post hoc test using Scheffé [*t*=3.7574, p=0.0492844] shows that the mean rating of the grade-school teachers in the public school (M=3.5480, SD=0.0119) significantly differ from the mean rating of the college teachers from State Colleges and Universities (M=3.6957, SD=0.0321).

Likewise, the mean rating of the junior high school teachers from the public school (M=3.5052, SD=0.0118) differs significantly from the mean rating of the senior high school teachers from a private school (M=3.6522, SD=0.0263), with the mean rating of the senior high school teachers from the public school (M=3.6271, SD=0.0194), with the mean rating of the college teachers from the private school (M=3.7391, SD=0.0405) and from the public school (M=3.6957, SD=0.0321) respectively and based on the post hoc test using Sceffé [*t*=5.1082, p=0.0004929]; [*t*=5.3977, p=0.0001398]; [*t*=4.0893, p=0.0193807]; and [*t*=4.8749, p=0.0012699]. The data shows that the teacher's level of agreement on the facilitating and hindering factors in the different levels of Ecological Systems Theory is significantly lower compared to the level of agreement of the teachers in the senior high school and the college both from the public and private schools.

Effective curriculum implementation cuts across various levels, from the classroom (teaching) setting up to the policy-making bodies (administration and management). It is imperative that practitioners be equipped with practical and theoretical bases as to how strategies and mechanisms may be employed to achieve the ultimate goal of education: student's academic achievement. Findings of the present study serve as crucial inputs in navigating the smallest

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details of curriculum change towards faithfully achieving the intent of the curriculum.

This study further advances that aligning teachers' and administrators' perspectives on factors that impact curriculum implementation , with respect to academic levels and units provides an avenue for discourse towards the attainment of the desired teaching and learning outcomes. By doing so, those at the forefront of curriculum reform practices contribute to the success of curriculum implementation through praxis that serve as a strategy for curriculum support.

CONCLUSION

Curriculum implementation plays a vital role in curriculum development because it deliberately engenders educational innovations to surmount change on an identified problem in the education system. To affect an educational change that would reflect both educational traditions and newly mandated curriculum policies, curriculum design capabilities, learning content expertise, and political capital must be utilized to their full potentials. For this reason, a multifaceted layer of involvement of the educational planners and curriculum implementers becomes highly critical. Based on identified research inquiries of this paper, the proponents of this study were able to contextualize the agreement of both the faculty and administrators on how teacher's commitment serves as an enabler in effecting change in classroom practices. It is worthy to note how curriculum change elicits best practices towards students' academic achievement. Heavy teacher's workload should be given serious attention as it contributes to a negative perception of the implementation of the curriculum at the classroom level. Scrutiny on the facilitating and hindering factors in the curriculum implementation processes provides a springboard for leaders in the education sector to align programs and policies anchored on experiences and practices in the classroom, along with research-based inputs.

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