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# Analysis of Implementing K-12 Program on Teachers' Pedagogical Approaches and Their Challenges

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ABSTRACT

The Philippines is the only country in Asia, and one of only three countries worldwide, with 10-year pre-university cycle curricula, and its implementation was unstoppable due to global competency demand. However, it has many challenges during the pre-implementation phase due to inadequate school facilities and needing more teachers. Thus, the study aimed to analyse the pedagogical approaches and challenges among teachers in implementing the K-12 curriculum by utilising a descriptive analysis. The design is a fact-finding study with an adequate and precise analysis of the findings. The results of this study, teachers in public schools still need to be fully equipped with pedagogical approaches in teaching K-12 curriculum. Teachers still need to capacitate this new trend in the educational system. The study is plotting to benefit and contribute to those involved in this educational system.

**Keywords**
Basic education
Curriculum
K-12 program
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## Introduction

The K-12 curriculum is a new educational program in the Philippines that is most familiar to people today. One of the political agendas of former President Benigno Aquino III is to expand the education system in the country, specifically for primary and secondary

education, from a 10-year to a 12-year education cycle [1]. On 15th May 2013, Aquino signed into law the implementation of the K-12 Program under the Republic Act No. 10533 series 2012. The bill was enacted and promulgated to enhance and upgrade the old Basic Education Curriculum (BEC) [2]. It has many challenges during the pre-implementation phase due to inadequate school facilities and needing more teachers. According to the DepEd, there was already a shortage of teachers due to financial restraint; thus, the government required about 103,599 public teachers to implement the new curriculum. Hence, many disagreements and resistance emerged between and among the different sectors of society [3].

The Philippines is the only one in Asia using the 10-year education cycle curriculum [4]. The educational system in the Philippines is always in the process of renewing for some factors identified [5]. DepEd is trying its best to address the needs of the Filipino people with a quality education that could bring them from a progressive individual to a developed country [6]. Along with its implementation were the challenges faced by the curriculum implementers and the core stakeholders directly affected or benefited by this development, the students [7].

Other than the description of the K-12 curriculum, which covers kindergarten, six years in primary school, and six years in secondary school (four years in junior high school and two years in senior high school). Also, it has aimed at providing sufficient time, especially for mastery of concepts and skills, developing lifelong learning, and preparation for higher education. Developmental skills, middle-level employment, and entrepreneurship are vital features that focus on the content and the pedagogy [8]. The government ensures that novice teachers, especially public school teachers, must have the necessary seminars and workshops on content and pedagogy. To meet the content and the excellent performance standards of the K-12 curriculum.

Expectedly, graduate students from the senior high school level possess 21st-century skills. Teachers are expected to deliver the lesson in different approaches by using collaborative, constructive and inquiry-based, reflective, and integrative. Behind these approaches are techniques and underlying principles of educational theory for enhancing education at all levels [9]. Other regions, such as Region IV-A CALABARZON, had already designed their assessment tool. To monitor and ensure it is adequately implemented through its Quality Assurance Monitoring and Evaluation (QAME) in coordinating with the Curriculum Learning and Management Division. However, many factors hinder Filipinos from achieving quality education, especially internationally. Former DepEd Undersecretary Juan Miguel Luz once delivered the message during the education forum. He asked about upgrading the quality of education in the country, and no one disagreed [10].

Apart from the fact that the government and non-government people have identified those factors: some have already proposed different possible solutions on how Filipinos can

uplift the quality of education. The ideas mentioned earlier and the discussion was the basis for how the K-12 framework has been implemented in teaching [11]. The K-12 framework aims to enhance the teacher's role as an excellent designer of student learning. In the 2019 academic year, the implementation of K-12 has been running for about seven years. The first batch under the K-12 program is now in their first-year college, 2018-2019. However, some teachers needed help in adopting the sudden change along the course in implementing the K-12 framework teaching. According to partial observations, some senior teachers still use the traditional teaching methods while others still need to follow the K-12 framework teaching. Therefore, the researcher of the study would like to discover the phenomenon of this problem because there was no final validity of the said observations [12].

Republic Act No. 10533, or the Enhanced Basic Education Act of 2013, was conclusively implemented in 2016 for the public educational system in the Philippines, which has gone through a dramatic revamp. Extending two more years and making it twelve is aimed at abandoning the country's previous 10-year education cycle for Basic Education Curriculum [13]. Hence, it will be more colloquially referred to as the K-12 program. From 1945 to 2011, the old curriculum comprises six years of mandatory primary education and four years of secondary level for children six to fifteen. The ratification of the new education curriculum now suggests that the basic educational program will take 13 years to complete, including kindergarten, under the supervision and regulation of the DepEd. While tertiary education is under management by the Commission of Higher Education (CHED) as well as the Technical Education and Skills Development Authority (TESDA) [14].

The study is anchored on features and concepts of the K-12 framework, namely the New Enhanced Basic Education Curriculum, adapted and implemented in the Philippines seven years ago under the management of the Department of Education (Shahani, 2015). One of the crucial features of the K-12 framework is using the pedagogical theory in implementing the contemporary curriculum for the primary and secondary levels. Thus, senior and novice teachers in public and private schools must adopt various teaching strategies on how these pedagogical approaches will be utilised in the classroom [15].

The study focuses on determining the teachers' pedagogical approaches and the challenges they met while implementing the K-12 curriculum framework in teaching. Hence, the study specifically attempted to answer the following questions:

1) The teachers use what pedagogical approaches in implementing the K-12 curriculum framework in teaching?
2) What challenges do teachers meet in implementing the K-12 curriculum framework in teaching?

## Literature Review

According to similar studies and previous findings, the public-school teachers still needed to prepare pedagogical teaching approaches in implementing the K-12 curriculum for primary and secondary school. Teachers still need to be capacitated with the new trend in the educational system. On the other hand, teachers are still facing challenges in implementing the new curriculum. The use of ICT and ICT-related instructional materials has been the most challenging aspect on the part of the teachers. Consequently, some teachers and students still need help manipulating the computer, and teachers must also learn to teach the subjects.

While the new trend in the Philippine educational system has faced challenges in its initial implementation until it reached its full-blown application, studies were already conducted to determine how far the performance has gone. The teachers in public schools in Infanta District were not prepared with varied teaching strategies and techniques. On the other hand, teachers in Infanta District experienced a shortage of learning materials. Modules and related references used in the teaching-learning process, as indicated by the overall mean score of 2.54, are verbally interpreted as “sometimes.”

Before the arrival of Magellan, the education system in the Philippines was informal, unstructured, and devoid of methods more vocational, pieces of training and fewer academics by their parents and in the house of tribal tutors and experienced several processes and development from pre-Spanish until the present [16]. The tribal tutors took place by the Spanish missionaries; hence, education was for the elite and became religious-oriented by the Spanish settlement. Access to education by the Filipinos was later liberalised through the enactment of the Educational Decree series of 1863, which offered the establishment of at least one primary school. The primary school in every town for boys and girls is under the management of the district government. Primary school was free, and teaching Spanish was a prerequisite, and definitely, the school was under control by the Spanish and Americans [13].

Plato's model is designed to produce proficient adults to meet the nation's needs. The teacher educators could work to provide people who are both self-actualized and functional to the state — too many controversies and praises that hassle this new policy on education. Nevertheless, the schools in the country should buckle up to cope with the request as they have already contended globally; even the law was passage. The schools must face the defiance in implementing the K-12 to meet the global demands. Plato believes we should educate our children according to their capabilities and needs because they should not have the same education as Plato's plan for the specialised training of guardians, workers, soldiers, and artisans.

Constructivist teaching bases all the subjects on the belief that the learner is not an empty receptacle but a mere instruction recipient. Instead, the learner is an active constructor

of knowledge and a maker of meaning [17]. Teachers' role becomes one of the facilitators, a "guide on the side" rather than a dispenser of information, a "sage on the stage." The student becomes an active "meaning-maker," not the teacher imposing meaning. This means that learners construct their knowledge and understanding of what is taught from their experiences [18].

The inquiry-based curriculum ensures learners can examine concepts, issues, and information in various ways and from multiple perspectives. It provides opportunities to develop the ability of creative and critical thinking. Impart decision-making and hypothesis to build and solve the problem. To encourage the learners to become active investigators by identifying a range of information. To understand the sources of information and evaluate the objectivity of data [19].

Rather than examining an issue from anyone's perspective, the learners are challenged to explore other possibilities by applying higher-order thinking skills in their decision-making endeavours. An inquiry approach in teaching is necessary to develop 21st-century critical and creative thinking skills. With the inquiry method, teaching departs from simply memorising fact-laden instructional materials. In inquiry learning, progress is assessed by how well students develop analytical and experimental talent. The role of teachers is to facilitate and plan the exploration of the ideas and skills required in the curriculum [20].

Reflective teaching is making students focus on what they do in the classroom and think about why they are doing it and think about how it works. Reflective teaching encourages learners to engage in the process of self-evaluation and self-observation. Collecting information about what is happening in their classroom and analysing and evaluating it, they identify and explore their practices and underlying beliefs. This may lead to changes and improvements in their learning [21].

Collaborative learning is a social activity and must be combined. Knowledge is intimately associated with connection with other human beings- classmates, teachers, peers, family, and the community. The teaching-learning process is a precious chance to teach what it means to "live together." Teaching-learning must promote teamwork and classroom interaction [22]. Science and Math have a relation to teaching. Physical Education, Science, Health, and Arts content is reading materials in English. *Araling Panlipunan* and *Edukasyon sa Pagpapakato* serve as reading the article in Filipino subject. Also, Science subject is to reinforce the topics in Health with the thematic approach [23].

Learning is contextual, and education cannot be separated from our lives. Students do not learn from isolated facts and theories separate from the rest of their lives. Inevitably, the teachers met problems or challenges in implementing the K-12 framework in teaching; thus,

they must conduct a study on this problem. The teachers pedagogically use constructivism, and inquiry-based reflective, collaborative, and integrative may influence the challenges. The teachers face them in implementing the curriculum in teaching [24].

### A. Pedagogical approaches

Constructivism. A theory based on observation and scientific study about how people learn. It says that people construct their understanding and knowledge of the world by experiencing and reflecting on those experiences. One's dissatisfaction with what is happening as contrasted with what ought to happen is called cognitive disequilibria or sometimes called cognitive dissonance is a necessary precursor of learning [25]. It gives the teacher access to what is in the children's mindset. To encourage teachers to provide students with a learning opportunity to help the children reconstruct their beliefs correctly, including the new information and have a conceptual change [17]. We do not learn by just passively receiving and then remembering what is taught but by actively constructing our meanings based on prior knowledge or experience (schema). This "meaning-making" theory of learning is called “Constructivism” or the fundamental principle of constructivism. Learners construct understanding and meaning based on prior knowledge or experience [26].

Players of Constructivism. Children have a different way of thinking from adults until they believe children are active learners and do not need motivation from adults' learning style. Also, children interpret knowledge differently as they progress through various stages [27]. Students are an active process in which the learners develop new ideas based on their present and previous knowledge. Constructivist children are very active learners in the learning process [28]. Learning is influenced significantly by social development, and learning takes the place of children's social development and culture. Education is a socialisation process; hence learning should go along with widening the learners' experiences [29].

### B. Appropriate and effective pedagogy

Great teachers carefully plan and implement a proper pedagogy because learning depends on teachers' pedagogical approaches in the classroom [17]. Many pedagogical approaches are common in schools, but some techniques are more appropriate and effective than others [30]. The effectiveness of pedagogy would always depend on a particular course. Teach on understanding the diverse needs of different students and on adapting on the ground situations in the classrooms and the surrounding context. In general, effective teachers believe in the learners' capability to learn and carefully utilise various pedagogical approaches to ensure learning occurs [31].

Pedagogy refers to the "interactions between students and teachers as well as the learning environment and tasks." This narrow term includes how students and teachers relate and the instructional approaches implemented in the classroom [32]. Pedagogical approaches are

placed on a spectrum from teacher-centred to learner-centred pedagogy. However, though these two approaches may seem contradictory, they can often complement each other in realising educational goals. For example, a teacher-centred may help introduce a new theme. A learner-centred approach may be necessary to allow students to explore these ideas and develop a deeper understanding.

Teacher-centred pedagogy positions the teacher at the centre of the learning process and typically depend on methods such as whole-class lecture, memorisation, and call-and-response). This approach is often scrutinised when students are afraid of the teacher completing only lower-order tasks. However, whole-class teaching can be helpful when teachers frequently ask students to explain and elaborate vital ideas rather than merely lecture [21]. Learner-centred pedagogy is constructivist, student-centred, and active. However, draws typically on learning theories give suggestions to the learners should play an active role in the learning process. Therefore, students use prior knowledge and new experiences to create understanding. The teacher facilitates this process but also designs and structures the conditions for learning. Considerable research and advocacy have promoted learner-centred pedagogy in recent years for economic, cognitive, and political reasons. Some research suggests this approach can be beneficial but hard to evaluate consistently. It will always be challenging for teachers to shift from teacher-centred to learner-centred pedagogy, so considerable support may be needed if this is an essential goal for a given educational system [33].

Learning-centred pedagogy is a relatively new term that acknowledges both learner-centred and teacher-centred. Pedagogy can be helpful too, but teachers consider the local context, including the students' number in the classroom. The physical environment, availability of teaching, and learning materials have suggested that teachers should be more flexible. Moreover, they carefully adapt their pedagogical approaches based on the school environment [34].

## Material And Methods

### A. Research design and data collection

The research uses a quantitative method utilising a descriptive survey design. The design is a fact-finding study with an adequate and precise analysis of the findings [35]. It describes what is and with emphasis on what exists, such as present conditions, practices, situations, or any phenomena [36]. Since the study was concerned with determining the pedagogical approaches used by the teachers and the challenges they met in implementing the K-12 curriculum framework in teaching. The descriptive-survey research design was the most appropriate method [37].

The researcher went to coordinate and wrote a letter to the head of the school division office, the superintendent's office in the Division of Palawan Province, asking permission before conducting the research. After approval of the permission letter, the researcher visited the schools and distributed the research questionnaires to 70 teachers in secondary schools from different schools, particularly in the Schools Division of Palawan. The researcher distributed the survey questionnaires in personal appearance to the 70 respondents, and after accomplishing the questionnaires, they would immediately be retrieved and analysed. The statistical tools used to total, tabulate, and explore the data. Descriptive statistics are used to analyse the variables of the study, such as weighted and arithmetic means. The arithmetic mean used in determining the teachers used Mean Rating on the Extent of implementing the pedagogical approaches.

**B. Settings of the study**

The study was conducted in the Schools Division of Palawan Province. The researcher would like to choose Palawan as the locale of the study because it was noted as one of the most competent teachers in the country. The ten selected secondary schools in the Schools Division of Palawan, namely, Narra National High School, Quezon National High School, Brook's Point National High School, Bataraza National High School, Balabac National High School, San Vicente National High School, El Nido National High School, Roxas National Comprehensive High School, Aborlan National High School, and Taytay National High School.

**C. Instrument**

The instrument of the research utilised in this study was a self-made questionnaire. The indicators in the questionnaire were extracted from the review of the literature used in this study. The survey questionnaire is compos of three parts. Part I generated secondary data about respondents' employment information. Part II made the primary data about determining the pedagogical approaches used by the teachers, and the third part dealt with determining the challenges met by the teachers while implementing the K-12 curriculum. The indicators for part II were 20 statements describing the teachers' pedagogical approaches. Then the third part is composed of 20 indicators that determine the challenges met by the teachers while implementing the K-12 curriculum. Furthermore, a four-point Likert scaling system was used to analyse and interpret data. See Table 1.

**Table 1.** Likert scaling system

| Parameter Limits | Interpretation |
|---|---|
| 3.50-4.0 | Always |
| 2.50-3.49 | Sometimes |
| 1.5-2.49 | Seldom |
| 1.00-1.49 | Never |

## Results

### A. Research question (RQ) 1: Pedagogical approaches in implementing the K-12 Curriculum

To capture the first Research question, the author describes the teacher respondents' pedagogical approaches in implementing the K-12 curriculum as per the survey questionnaire. The question was: *What pedagogical approaches does the teacher use in implementing the K-12 curriculum framework in teaching?*

Table 2 presents the Mean Rating on the Extent of Challenges for teachers in implementing the K-12 curriculum. The respondents have rated "always" with a Mean of 3.68 on item no. 9, "insufficient computers to be used in teaching." Same in question no. 10, "available projector and ICT-related materials or technology-assisted instructional materials needed in the teaching-learning process."

Based on the Mean score mentioned in the table, the interpretation of the statement is "sometimes." It means teachers showed interest in imparting knowledge to their students to build strong knowledge and understanding of the subject matter. In this way, students can relate their topics to the situation resulting from developing their ideas. In items, number 12 and 10 have the same Mean of 2.48 and are rated as "seldom" in the descriptions, namely, 'encourage students to engage in dialogue, both with the teacher and with one another" and "seek elaboration of students' initial response." It is implying that teachers still opted to use these strategies as part of pedagogical approaches. On the other hand, respondents rated "never" with the Mean of 1.25 in the item no. 15, "let the students explain the phenomenon; reconcile any conflict between their predictions and observation." Further explains that teachers did not allow their students to give their ideas on a particular situation related to the reconciliation of prediction and observation. In this case, students' class interaction is lesser. The teachers' mean Rating on the Extent of implementing the pedagogical approaches has an Overall Mean of "2.52" with the interpretation of "sometimes." The teachers in public schools in the Division of Quezon, District of Infanta, did not equip with varied teaching strategies and techniques.

**Table 2.** The teachers used Mean Rating on the Extent of implementing the pedagogical approaches (N = 75)

| No. | Statements | Mean | Description |
|---|---|---|---|
| **1** | Prompt and facilitate discussion | 2.52 | Sometimes |
| **2** | Guide students by asking questions that will help them to develop their conclusion on the subject | 3.68 | Always |
| **3** | Allow wait time after posing a question | 2.52 | Sometimes |

| | | | |
|---|---|---|---|
| **4** | Engage students in an experience that might contradict their initial hypothesis and then encourage discussion. | 2.62 | Sometimes |
| **5** | Prompt students to formulate their own questions (inquiry) | 2.59 | Sometimes |
| **6** | Allow multiple interpretations and expressions of learning (multiple intelligences) | 2.57 | Sometimes |
| **7** | Encourage group work and the use of peers as resources (collaborative learning) | 2.56 | Sometimes |
| **8** | Provide time for students to construct a relationship | 2.51 | Sometimes |
| **9** | Inquire about students' understanding of concepts before sharing their knowledge about the concepts | 2.33 | Seldom |
| **10** | Encourage students to grab in dialogue, both with the teacher and with one other | 2.48 | Seldom |
| **11** | Encourage student inquiry by asking thoughtful, Open-minded questions and encouraging students to ask questions of each other. | 2.52 | Sometimes |
| **12** | Seek elaboration of students' initial responses | 2.48 | Seldom |
| **13** | Let the students make a prediction on the outcomes of some event and justify their predictions | 2.55 | Sometimes |
| **14** | Let the students describe what they observe from the activity they carry out or demonstrated by the teacher | 2.54 | Sometimes |
| **15** | Let the students explain the phenomenon; reconcile any conflict between their predictions and observation. | 1.25 | Never |
| **16** | Involve students in analysing and organising what they know and what they like to learn about a topic before and after the research has been done (Graphic organization-KWLH Chart) | 2.58 | Sometimes |
| **17** | Use mind mapping and concept mapping. | 2.41 | Never |
| **18** | Encourage peer evaluation to build confidence and ownership | 2.50 | Sometimes |
| **19** | Allow students to offer their ideas with teacher interference | 2.54 | Sometimes |
| **20** | Allow students to help shape their activity so they feel ownership over the result | 2.59 | Sometimes |
| **Overall Mean** | | 2.55 | Sometimes |

*Legend: 3.50 – 4.00 – Always, 2.50 – 3.49 – Sometimes, 1.50 – 2.49 – Seldom, 1.00 – 1.49 – Never*

## B. Research question (RQ) 1: Pedagogical approaches in implementing the K-12 Curriculum

To capture the second RQ2, the author describes the teacher respondents' challenges teachers meet in implementing K-12 as per the survey questionnaire. The question was: *What challenges do teachers meet in implementing the K-12 curriculum framework in teaching?*

**Table 3.** Mean rating on the extent of challenges the teachers face in implementing the K-12 Curriculum (N = 75)

| No. | Statements | Mean | Description |
|---|---|---|---|
| **1** | Inadequate seminar/training related to the K-12 curriculum | 2.58 | Sometimes |
| **2** | Insufficient readings and study materials for the K-12 curriculum | 3.15 | Sometimes |
| **3** | Lack of knowledge, skills, attitudes, and values pertinent to the K-12 curriculum | 3.45 | Sometimes |

| | | | |
|---|---|---|---|
| **4** | Poor awareness of the goals, purposes, and objectives of the K-12 curriculum | 3.47 | Sometimes |
| **5** | Lack of mastery in teaching content and objectives | 3.57 | Always |
| **6** | Inadequate knowledge of varied teaching strategies and pedagogical approaches | 2.66 | Sometimes |
| **7** | Insufficient understanding of educational technology | 3.40 | Sometimes |
| **8** | Inadequate know-how in the use of various assessment tools | 3.33 | Sometimes |
| **9** | Insufficient computers to be used in teaching | 3.68 | Always |
| **10** | No available projector and ICT related Materials or technology-assisted instructional materials are needed in teaching-learning process | 3.68 | Always |
| **11** | Insufficient learning modules in the subject | 1.46 | Never |
| **12** | No teacher's manual that can be used to guide the teachers | 2.45 | Sometimes |
| **13** | Lack of confidence to appropriately teach K-12 curriculum | 2.54 | Sometimes |
| **14** | No laboratory rooms/ laboratory equipment to engage students in long retention of learning | 2.54 | Sometimes |
| **15** | Spend most of the time preparing for the lessons and doing many papers works for reporting. | 2.46 | Seldom |
| **Overall Mean** | | 2.94 | Sometimes |

Legend: 3.50 – 4.00 – Always, 2.50 – 3.49 – Sometimes, 1.50 – 2.49 – Seldom, 1.00 – 1.49 – Never

As revealed in Table 3, the DepEd should provide additional computers for students. Primarily those taking ICT subjects and on the part of the teachers handling the related matters can deliver the different topics of ICT more effectively. Also, respondents rated "never" with a Mean of 1.46 in item 11, "insufficient learning modules in the subject." In this regard, the teachers and school principals must collaborate to provide more modules for the students and parents. Inform them that the school will not offer free modules for students. Hence, students should spend a minimal amount as agreed on by the school. Table 2 has a total overall Mean of 2.94, describing "sometimes." The teachers encounter many challenges in implementing the K-12 program—the training and workshops aimed to equip every teacher with contemporary teaching strategies for classroom discussions. Besides, Technology and other ICT- related materials needed for instruction become problems in teaching because we cannot operate computers.

The primary purpose of the study is to determine the pedagogical approaches used by the teachers and the challenges they met in implementing the K-12 curriculum. The total population of respondents was 75 high school teachers in Palawan Schools Division. Descriptive research was used, and survey questionnaires were distributed to the respondents and selected randomly.

The researcher developed the following findings based on the analysed data from the survey questionnaires. The teachers' mean Rating on the Extent of implementing the pedagogical approaches has an overall Mean of 2.52, described as "sometimes." Though some indicators were consistently rated as always, they always used this pedagogical approach. However, looking at the overall Mean, the teachers sometimes used pedagogical practices in

teaching. The teachers used Mean Rating on the Extent of Challenges in Implementing the K-12 as shown in the Overall Mean of 2.94, described as “sometimes." The teachers lack mastery in teaching the subject but based on the overall Mean, the teachers sometimes meet challenges in implementing the K-12 curriculum.

## Conclusion

Based on the previous summary of findings, teachers in public schools still need to be fully equipped with pedagogical approaches to teaching the K-12 curriculum. Teachers still need to capacitate this new trend in the educational system. On the other hand, teachers still faced challenges in implementing the new curriculum. The use of ICT and ICT-related instructional materials has been the most challenging aspect on the part of the teachers. Some teachers and students still need help manipulating the computer, and teachers also need to gain knowledge of computer courses.

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## Conflict of Interest

The authors declare that there is no conflict of interest.

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