



Multidimensional Analysis of Determinants in the Academic Achievement of Basic Education Learners: Its Implication to Higher Education Institutions

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Abstract. This study is an empirical and holistic inquiry on the challenges and opportunities in the implementation of quality of basic education. It deconstructs basic education based on the statutory policy, the RA 10533 “Enhanced Basic Education Act of 2013. It aims to analyze the determinants of academic achievement among basic education learners in Northern Mindanao and design interventions to address the challenges and strengthen best practices in improving the quality of basic education in the region. The interest of the study is in enabling inputs dimension namely: Governance and Management, Basic Education Curricula, Teacher Development and Student/Learner Development. It employs mixed methods to investigate variables in the study and address the research questions. The participants of the study were the Basic Education teachers teaching in Grades 3, 6, 10 and 12 in the governments schools and learners who took the 2017–2018 National Achievement test (NAT), and DepEd school administrators. A multi-stage sampling was employed in choosing the schools, thus, size of school (small, medium and large) and results in the performance of National Achievement. Test (NAT) classified as low, medium and high were taken into consideration. Purposive sampling was utilized in identifying the teacher participants and administrator participants. Results revealed the gaps of the K to 12 policy and its implementation of the Curriculum. Furthermore, Basic Education teachers have very satisfactory competencies across key result areas (KRAs). Meanwhile, basic education learners have low proficiency in critical thinking, problem solving and information literacy skills in most subject areas.

Keywords: Multidimensional Analysis · Basic Education Learners · National Achievement test

1 Introduction

Quality education is a human right and a public good (Education International, 2007)[1]. It is one of the most basic public services. With the promulgation of Republic Act 10533 or the Enhanced Basic Education Law, the government envisioned an educational system

that will produce graduates with competencies at par with global standards. The shift to the K to 12 Curriculum promised to “give every student an opportunity to receive quality education that is globally competitive based on a pedagogically sound curriculum that is at par with international standards (RA 10533).”[2] With the establishment of a “universal kindergarten” and the introduction of Grades 11 and 12 to high school education, it is expected that after basic education, Filipinos are not just ready for university, but are also imbued with 21st Century skills to have gainful employment. The National Achievement Test (NAT) results, however, show a different – and alarming- scenario. The NAT is a standardized set of examinations taken by Filipino learners in Grade 6, 10 and 12. It is designed to determine their academic levels, strength and weaknesses, as well as their knowledge learnt throughout the years in English, Filipino, Math, Science and Araling Panlipunan (Social Studies). For the past three years, the performance of students in the NAT has been steadily declining, placing them at the “low mastery” or “low proficiency” descriptive level (Department of Education, 2019)[3]. In Region X for instance, for the last two years, results of the Grade 6 NAT national Mean Percentage Score (MPS) is 38.695, while that of the region is 36.965, with low proficiency level Department of Education- X (2019) [4]. Likewise, for Grade 10 NAT mean percentage score, the national mean percentage score is 44.35. The MPS of Region X is 44.32. Both are indicative of low proficiency level.

For Grade 12, NAT mean score (database 2017–2018), although Region X has a higher MPS compared to the national MPS, it is still at a low proficiency level. In the same report, issues were identified as follows: (1) poor learning outcomes of learners versus region targets, (2) too many curricular/extracurricular activities both for teachers and students in local and national levels, (3) poor learning outcomes versus region targets, (4) Assessment on the NAT, (5) on marginalized learners, (6) alignment of curriculum between CHED and DepEd, and (7) shifting of assessment from content to proficiency level or the 21st Century Skills. Therefore, there are many facets of the school system that needs to be analysed in order to come up with evidence-based policies to improve quality basic education. This research program is an empirical and holistic inquiry on the challenges and opportunities in the implementation of quality of basic education. It aims to come up with recommendations to strengthen education as a pillar of development in the region (Fig. 1).

The study is interested particularly in enabling inputs dimension given the proposition that attaining the best or ideal educational outcome is likely to be strongly influenced by the resources made available to support the process and the direct ways in which these resources are managed. These enabling inputs are: Governance and Management, Basic Education Curricula, Teacher Development and Student/Learner Development. These enabling inputs are the four research projects under the program. Each research program is further composed of research studies. A total of nine studies compose the entire program.

1.1 Objectives of the Research Program

In general, the research project aims to:

- 1.1.1 Analyze the determinants of academic achievement among basic education learners in Northern Mindanao;

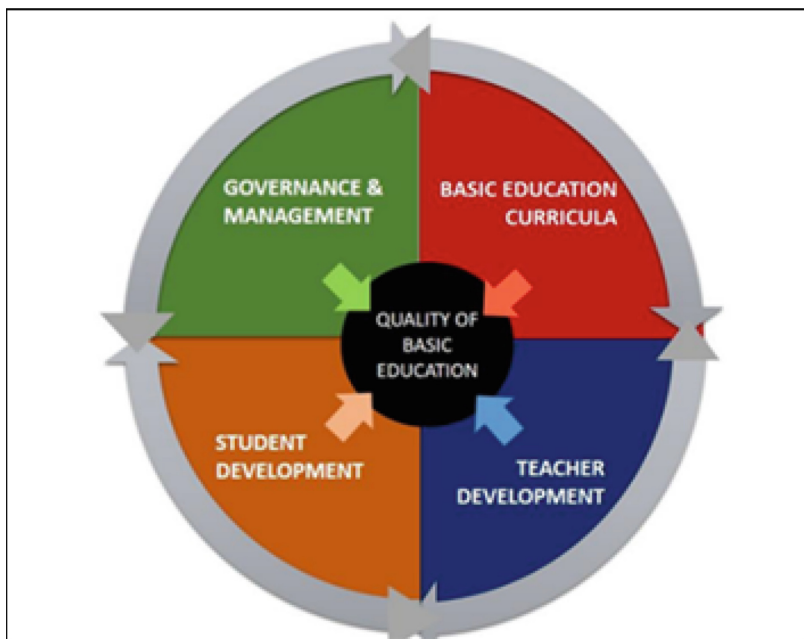


Fig. 1. Framework of the Research Program

1.1.2 Design interventions to address the challenges and strengthen best practices in improving the quality of basic education in the region.

2 Procedure

The conduct of this policy research study is in close coordination with the Regional Development Council Region X (RDC-X). This study provided evidence-based decision making for policy formulation. An endorsement from Provincial Governors, City Mayors and concerned DepEd School Divisions Superintendents was also sought through RDC-X. A letter was sent to the Superintendent in the Division of Bukidnon requesting for issuance of memorandum to the identified schools covered in the study. Furthermore, a virtual meeting and orientation to the school principals in the conduct of the study and data gathering information.

2.1 Research Design

The study employs mixed methods to investigate variables in the study and address the research questions each study.

2.2 Participants of the Study

The participants of the study were the Basic Education teachers teaching in Grades 3, 6, 10 and 12 in the governments schools and learners who took the 2017–2018 National Achievement test (NAT), DepEd Officials or school administrators.

2.3 Sampling Procedure

A multistage sampling was employed in choosing the schools. That is, according to the size of school (small, medium and large) and results in the performance of National Achievement Test (NAT) classified as low, medium and high. Only data in Grades 3, 6, 10 and 12 are covered in the study for school year 2017–2018. The studies which require teachers and students as respondents, (20–25%) of the student or teacher population are identified per DepEd division. Purposive sampling is utilized in identifying participants Teacher participants and administrator participants.

3 Results and Discussions

3.1 Dimension 1: Governance and Management

The study targets to deconstruct basic education vis-à-vis policies guiding implementation to improved access to quality education. The study looks into gaps of these policies and recommends policy changes for basic education in the new normal. Per results of the study, the following are areas for improvement: for policy formulation, the study proposes to involve stakeholders in the consultation process, adopt measures that accommodate unique local contexts, ensure provisions in policy that anticipate crisis such as pandemics and disasters, and define role of parents in K to 12 Act; for policy implementation, the study proposes to look into needed capacity building, geographical limitations, congested K to 12 curriculum, and participation of parents; and for policy monitoring and evaluation (M&E), the study suggests strengthening the utilization of assessment data and monitoring tools to address contextual disparities.

3.2 Dimension 2: Basic Education Curriculum

The study identified gaps in the implementation of the K-12 curriculum, which are classified into six areas: 1) lack of learning resources; 2) issues in the curriculum; 3) reading ability of the learners; 4) class interruptions; 5) multifarious tasks of the teachers; and 6) lack of pedagogical skills among teachers. The research has formulated intervention plans to address the said challenges targeting the Teacher Training Institutions (TTIs), the Department of Education (DepEd), and the Commission on Higher Education (CHED). Corresponding to the objectives set in the interventions plans, the following activities were identified: review of curriculum; calibration of syllabus; and inclusion of the pedagogical content knowledge of the five subjects tested in the National Achievement Test (NAT) in the Extension Project in the Continuing Professional Development Education Services.

3.3 Dimension 3: Teachers' Development

The study revealed that generally Basic Education teachers have very satisfactory competencies across key result areas (KRAs). Results showed that teachers have obtained a certain level of mastery of the content knowledge and pedagogy. It was also determined

that competencies of Basic Education teachers and teachers' workplace wellbeing vis-à-vis NAT performance of learners have no significant correlation. None among the KRAs of teachers' competencies can significantly influence learners' performance in the NAT. The study also showed that the overall NAT results of the sampled schools in Region X fell below the set goal of 75%. Looking at different subject areas, none reached the set standard, with Math garnering the lowest mean percentage. Lastly, the study suggested that other elements affecting NAT performance may need investigation, which include learner factors and testing environment factors.

3.4 Dimension 4: Learners' Development

The study showed that the basic education learners in the elementary and secondary level have low proficiency in critical thinking, problem solving and information literacy skills in most subject areas. Likewise, both elementary and secondary levels in Region X have not fully developed the targeted 21st century skills, which are essential tools for learning. Cognitive, psychological, social and material well-being are significantly correlated to learners' academic and NAT performances. Based on the perspectives of teachers and school administrators, the following factors emerged as contributory to the NAT performance: a) student/learners; b) curriculum; c) teacher; d) schools, and e) familial.

3.5 Strengthening Pre-service Teacher Education (PSTE)

The study affirmed that the curriculum offered at the pre-service level affects the kind and quality of a graduate from a TEI. The Teacher Education Programs offered by TEIs must promote the acquisition of teacher quality standards, thereby, producing graduates who are ready to implement the K to 12 curricula. Among the key results identified in the study are the following: a) there is sufficient to very sufficient coverage of the K to 12 content standards for English, Filipino, Science, Mathematics, and Social Studies in Bachelor of Science in Education (BSEd) programs of participating HEIs generally; b) the professional education and major subjects of the HEIs showed alignment in the integration of the K to 12 prescribed pedagogies and assessments; and c) the BSEd major courses also integrated and taught pedagogies and assessments that are aligned to the prescribed K to 12 curricula.

4 Conclusion(s)

Based from the foregoing results, these conclude that there are gaps in the formulation, Implementation, monitoring and evaluation of the implemented educational policies. Similarly, there are gaps in the implementation of the K-12 curriculum, which are classified into six areas: 1) lack of learning resources; 2) issues in the curriculum; 3) reading ability of the learners; 4) class interruptions; 5) multifarious tasks of the teachers; and 6) lack of pedagogical skills among teachers, Basic Education teachers have very satisfactory competencies across key result areas (KRAs).

The basic education learners in the elementary and secondary level have low proficiency in critical thinking, problem solving and information literacy skills in most subject areas.

Elementary and secondary levels have not fully developed the targeted 21st century skills, which are essential tools for learning. Cognitive, psychological, social and material well-being are significantly correlated to learners' academic and NAT performances. Student/learners, curriculum, teacher, schools, and familial are contributory factors to the NAT performance.

The professional education and major subjects of the offered by Teacher Education Institutions (TEIs) are aligned to the K to 12 prescribed curricula.

5 Recommendation

Elevate the results of the study to the concerned agencies such as DepEd and CHED for appropriate action to address the concerns on the governance and management in line with the educational policies affecting the learners development, teachers development, curriculum development to improve the quality of Basic Education thereby improve the performance of Filipino learners in the National Achievement Test as reference of quality education.

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