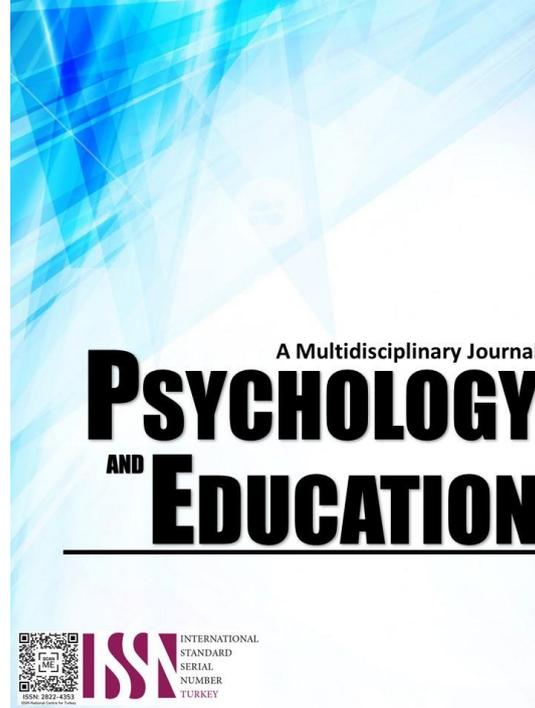


# MODELLING SMEA IMPLEMENTATION: THE IMPLEMENTERS' PERSPECTIVES



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## Modelling SMEA Implementation: The Implementers' Perspectives

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### Abstract

The challenges of school monitoring and evaluation (M&E) implementation and the scarcity of literature discussing factors of successful SMEA implementation prompted this initiative to devise a model illustrating how SMEA factors were directly influencing the efficiency of school improvement processes. Using a sequential exploratory design to generate indicators and components of SMEA from the implementers' perspective, an exploratory factor analysis (EFA) was utilized to extract and group the factors to determine the emerging components. Cronbach's alpha was used to assess the reliability of the instrument. The model depicting interrelationship among SMEA components was costumed fit using a structural equation modeling and was interpreted using Cohen's effect size strength of association. Five factors derived from varying perspectives of SMEA implementation were extracted and were categorized as (1) the implementers' appreciation of SMEA benefits, (2) school engagement towards good SMEA practices, (3) SMEA's support to quality instruction, (4) SMEA challenges and limitations, and (5) knowledge and skills of SMEA implementers. Among these, four components emerged as significantly interrelated and were contributory to successful SMEA implementation. This strength of positive correlation was illustrated in a model which described how the implementers' appreciation of SMEA benefits supported the enhanced appraisal of the quality of the teaching and learning process. Hence, extensive research is recommended for deepening each component to sustain and refine the system.

**Keywords:** *evaluation, monitoring, school, interrelationship, implementers' perspective*

### Introduction

Monitoring and Evaluation (M&E) is the backbone of any successful organizational pursuit. It is a process of assessing the merit or worth of an organization or program, both performance and impact for different audiences and purposes (Curry, 2019). In the context of education, a harmonized process of school self-evaluation known as the School Monitoring Evaluation and Adjustment (SMEA) was systematized in 2011. This school self-evaluation system is a product of the continuing desire for strengthened school autonomy mandated under RA 9155. This quality management system is a vital component for transforming schools as it serves as a scale of accomplishment of school plans and targets. The goal of SMEA is to provide the teachers, school heads, and supervisors with objective information and insights on the status, progress and results of the delivery of basic education for decision-making, accountability, and continuous improvement to achieve the desired education outcomes (Paragoso & Barazon, 2019).

All schools are mandated to conduct SMEA as part of SBM's mechanism for transparency and accountability. However, an SBM report presented by World Bank in 2016 revealed low levels of transparency among public schools, suggesting to strengthen the monitoring by district and division offices on the production of key information of school performance since there were issues on data validity

and reliability which might not properly represent the performance of the school (Paragoso & Barazon 2019). This posed several questions and points of clarification on its implementation. Is the current M&E framework designed to measure the intended output, the quality teaching and learning that will bring about effective learning outcomes? It appears that there is no specific evaluation model that is easy to use. This is a challenge in most of developing countries since some key components of a comprehensive evaluation framework are underdeveloped or do not exist (OECD 2018).

This phenomenon prompted the researcher to explore SMEA qualitatively and quantitatively to examine its entire components, to search for factors from real experiences, and eventually define the components of efficiency from the perspectives of its users. There was a scarcity of research-based knowledge in the Philippines that examined how schools monitor and evaluate their performance and how they generated indicators of performance, hence, areas to focus the reinforcement become ambiguous. As reported, most countries have a formal system of external school inspection, school review or school audit, except the Philippines (UNESCO 2018). For more than five years of implementing SMEA to oversee the planning, learning and teaching, measurement of achievement of plans and targets, and comparing goals and outcomes, an exploration and an in-depth qualitative and quantitative research analysis was deemed necessary to generate understanding of the multi-layered and

interrelated sources and causes of problem, likewise explore its potential. This exploration on the factors that affected the implementation of SMEA within the perspective of the implementer was pursued to discover how the school was utilizing this system for quality assurance and how the interrelationship of these factors was either benefitting or hindering performance so that points of direct or indirect association may be considered in crafting a framework. This required the collection of information among teachers and school heads, the prime implementers of SMEA so that pockets of good and poor performance of SMEA implementation could be identified and that accurate areas of concern for monitoring may also be well identified. Many countries have provisions for M&E components, but often these are not well-coordinated and there is no strategy or systematic mechanism to ensure that these different systems mutually reinforce each other to create synergy and support for performance of the education system (UNESCO 2018).

Guided by the components of the Theory of Change in recognizing what works and does not work, these factors imbibed in the SMEA implementation were categorized to establish the key components of successful implementation. This process resulted to a formation of a model depicting the interrelationship of SMEA components, anchored on the index of perceptions of the implementers and users. This model illustrated the causal effects of quality SMEA implementation on good governance and quality teaching and learning. Hence, this output provided lessons and research-based information to other regions in the country that the manner of appreciation and understanding of the benefits of implementation affected the practices of implementation and the deepening of skills in the implementation which resonate with the quality of teaching and learning.

### Research Questions

The general aim of this paper was to explore the perspectives of experiences among implementers of SMEA to create a model of effective SMEA implementation. Specifically, it sought to answer the following questions.

1. What are the perspectives of the people involved in the School Monitoring Evaluation and Adjustment (SMEA) implementation?
2. What are the indicators that can be derived from the varying perspectives of SMEA implementation?
3. What key components contribute to the successful implementation of SMEA?

4. How do the key components of SMEA implementation relate to one another?

## Literature Review

### School Monitoring Evaluation and Adjustment (SMEA)

The Department of Education (DepEd) underwent a major enhancement in monitoring and evaluation system in 2011 through its package of policy reforms known as Basic Education Sector Reform Agenda (BESRA), giving prime attention to quality assurance and accountability. Product of its Key Reform Thrust 3, support for learning strategies and quality assurance, was the creation of the quality assurance and accountability framework, laid out in the school M&E handbook and was released in March 2011. School Monitoring Evaluation and Adjustment (SMEA) was introduced in 2016 in the selected provinces of Visayas as an innovation in response to BESRA's Reform Thrust 3.

The SMEA handbook defines monitoring as the continuing and systematic process of collecting, analyzing, interpreting and reporting information to assess progress towards the achievement of objectives, outcomes and impacts. It is seeing if something is done through tracking down of plans and comparing it with accomplishments in a systematic approach. It is the regular collection and analysis of information to provide indicators of progress towards objectives. It includes monitoring inputs, activities, outputs and progress towards outcomes (OECD, 2018).

On the other hand, evaluation is the process of determining the worth or significance of the outputs and results in terms of efficiency, effectiveness and sustainability consistent to the school goals and objectives set (UNESCO 2018). It is the assessment of a planned, ongoing or completed activity to assess the achievement of objectives as well as testing underlying theory of change assumptions. This includes establishing link among the accomplishment of School Improvement Plan-Annual Implementation Plan (SIP-AIP) objectives and the over-all contribution of the school to Division Education Development Plan (DEDP) targets of the schools division where it belongs, to the Regional Education Development Plan (REDP) targets, and the national targets. Adjustment refers to the agreement or realignment made during mid-implementation review or quarterly SMEA concerning modifications of targets and strategies caused by unforeseen circumstances in school



management, resources availability and changes in education cycle and landscape as in the case of COVID-19 pandemic.

Designing effective M&E of education systems hinges on good governance and accountability. Hence, the goal of SMEA is to ascertain that the entire school and community resources are synergetic to attain the mission and vision of the Department of Education, that is to develop competent and good-natured individuals. The strengthening of SMEA implementation is a response to RA 9155 to ensure compliance to quality standards for basic education program. It mandates an authority, accountability, and responsibility that all financial, human and physical resources available in the school should be directed towards the development of every learner holistically. This also the ultimate aim of quality assurance, to ensure that learners have the best learning opportunities possible and to ensure that inclusive and equitable quality education is being provided to all of the population and at all levels (UNESCO 2018).

Guided by the principles on quality information, systems strengthening, efficiency, transparency of information to key stakeholders, synergy, learning and accountability, and focus, SMEA aims to provide objective information that can inform decision-making to continuously improve the school's performance or health in curricular programs and projects, education resources, teaching and learning, teacher and learner performance, school management, productivity and community partnership to achieve the desired education outcomes. These goals set directions to its implementers and with the help of the SMEA handbook, a standard monitoring and evaluation system at the school level is expected. The handbook provides clear procedures, guidelines and tools and structure appropriate to the context of schools. It describes in detail the steps in setting up a strategic M&E system starting from clarifying the objectives and targets of the school, defining success indicators and performance measures, timelines etc. It also specifies the criteria for the selection of school quality management team (SQMT) along with its roles and functions. These processes are not new to the schools because these are enhancement to the processes of school improvement plan (SIP) and school-based management (SBM), a plan and a program that have been implemented for more than a decade already. The purpose of the introduction of SMEA system is to link these initiatives into a synergetic approach to gain a clear view of the actual performance of the school. This means that students, parents, teachers, school head and community stakeholders are well-informed

of the progress of the school through a systematic reporting of data of accomplishments, resources, and strategic intervention to problems. These data must be the accurate representation of the school and the information should be consistent to all reporting online facilities required by the Department such as the EBEIS, LIS, LRMS, DPDS, etc.

Thus, SMEA is a means to keep abreast of the current delivery of the basic education services. Through the qualitative and quantitative gathering of information, the schools, districts, and divisions present their current status and progress and identify possible directions for technical assistance and pertinent intervention (Paragoso & Barazon 2019). The improvement is focused on measuring aggregated quarterly data on input, process and output indicators covering access, quality and governance ranging from Kindergarten to Grade 12 including Alternative Learning System (ALS) and private schools. Indicators under access involve data on the number of enrolment, dropouts, cohort survival, attendance, tardiness, absenteeism, at-risk learners, school leavers, repeaters, learners' nutritional status, classes per grade level, available learning materials, voucher-recipient for private schools etc. For indicators under quality, data include percentage of passing per learning area by grade level, percentage of promotion, least learned skills, competencies covered per quarter, classes implementing contextualization, reading level, school performance in national assessment, Accreditation and Equivalency (A&E) passers and learning sessions for ALS. Finally, data on governance includes number of instructional supervision, teachers trained, number of attended district professional meetings, number and status of classrooms, toilets, desks, armchairs, functional library and computer units, laboratories, teachers' performance rating, number of teachers provided with technical assistance on classroom management, curriculum implementation, teaching-learning and assessment, functional stakeholders organization, personnel's attendance, best practices, child-friendly school and wash in school assessment, percentage and status of liquidation of the school Maintenance, and Other Operating Expenses (MOOE) and other funds, land titling, percentage of stakeholders participation and donation, awards and recognitions received, accomplishment of SIP/AIP implementation based on targets, school feeding program, school basic research, status of reading program etc.

During quarterly SMEA conference, concerns, issues, gaps, and problems identified from those indicators are discussed and presented and are forwarded to the next

higher office for technical assistance in case issues are beyond the school's capacity to rectify. The need to determine the causal variables of school performance, measure actual performance with expected performance, and seek to identify performance problems and the need for solutions require monitoring and evaluation processes (Adalety & George, 2019). The enumerated list of indicators are the considerable number of components of access, quality and governance. They can also be classified under the components of the theory of change, the input, activities, output and/or outcome. Given this complexity of overlapping components, planning for M&E is considered one of the critical components needed to bring about educational transformation (Cavanaugh, McCarthy and East 2014). One good way of doing this is involving the stakeholders in all plans of the school. Involving them during planning, monitoring, evaluation, and adjustment of plans strengthens ownership and accountability. Their involvement opens varied perspectives of SMEA implementation and their suggestions become points for enhancement.

### Stakeholders' Perspectives on SMEA

The enumerated list of indicators are only samples of school performance indicators harvested quarterly which requires the teachers and the school head to spend time collecting and organizing the data required. These data requirements are updated and modified quarterly by the Regional Office depending on its relevance. Subsequently, the modified offline SMEA template is downloaded to schools at the end of every grading period and the cycle of encoding and reporting of data for the monitoring of progress and performance of the school continues. The study of Paragoso & Barazon (2019) on SMEA in Central Cebu, Philippines revealed that there was a high level of SMEA implementation in the 62 schools in Toledo City. However, the overwhelming number of indicators prompted the teachers to provide data for the sake of providing information which resulted to the problem in the validity and reliability of SMEA results. The study described the teachers' appreciation of the importance of SMEA, however, they felt SMEA is a burden because they had to gather enormous data and spend days validating and encoding the data, considering that this task is an additional responsibility aside from being coordinator to other subjects. It was noted in the UNESCO report in 2018 that the increasing volume of data collected may cast a burden at the lower levels of authority in schools and the demand for collecting several types of information from the teachers considerably affects their teaching schedule and the

quality of teaching. The generation of such volumes of data is one of the challenges wherein there is availability of large mass of data, yet unutilized and still have data gaps on certain specific demands of specific users. The problem on unutilized data can also be attributed to lack of coordination among different levels of authorities such as the different functional units of the division, regional and central offices. These offices may require data submission from schools at any point of time considering that most of the information needed are already captured in the school data gathering tool. The normal benchmark for the effectiveness of M&E system is the extent to which the information produced is utilized (UNESCO, 2018). This happens because the transfer of authority of the decentralization efforts has not been complete which means that fully functional monitoring at the lower levels become a challenge with partial monitoring control remaining with the top level, affecting coordination at all levels of the sector (UNESCO 2018).

Only a few countries possess well-developed M&E systems (UNESCO 2018) and the Philippines being a developing country falls on a type of M&E development stage that is either fragmentary or independent, meaning different M&E systems are established and functioning but are operating as separate entities serving their confined scope. According to UNESCO 2018, this M&E category relies heavily on quantitative evaluations serving more on the needs of donors and policy-makers rather than on beneficiaries and is done to make judgements than on empowering target groups or on impacts and outcomes. This M&E system falls short under compliance monitoring, that is M&E only for reporting and not for decision-making. This instances is made clear in Abdourahmane's (2021) contention, he affirmed that most monitoring systems have been promoted as a method of school improvement, teachers in schools have tended to resent and oppose what they see as a system of inspection or supervision on the grounds, that it is mere rhetoric to mask the national department's need to control the quality of schooling.

Moreover, on the school management level perspectives, school heads are often unable to satisfy elaborate data collection, analysis and implementation processes as demanded by Deped guidelines. Although instructions are explicit, training is provided, planning and analysis tools are offered, SQMTs often do not have time, resources, or capacity to undertake all steps in SMEA implementation resulting in a continuation of previous practices of simply copying and submitting



information found on templates rather than deeply engaging with data analysis to support decision-making (Read & Atinc 2017). This conclusion from the case study in the context of the Philippines on investigations on using data to improve learning pointed out the inabilities of school heads to exploit the potential of the M&E system in analyzing the generated data for the prioritization of plans, instead the data are forwarded to the Division office usually by the school ICT coordinators for compliance purposes (Paragoso & Barazon 2019). The cause of this cycle of practices is difficult to determine considering that Deped continuously issues memos as the basis for action even for very local decisions, perpetuating a culture of compliance and reliance (Read & Atinc 2017).

Ideally, these performance indicators are analyzed and its implications to the status of the progress of the school are interpreted by the school quality management team (SQMT) who are trained and has a full grasp of the process review of data gathered to make inferences and to enable school management to arrive at sound decision-making. Hence, integral to data analyses, utilization, and making sense of it is the capacities of SMEA implementers for a higher levels of ICT skills, proficiency in handling large masses of data and training for statistical or database management and data analytics. Ineffective use of data can be attributed to lack of easy access to data and lack of capacity of the user to use the data efficiently and effectively (Elacqua & Alves 2015).

Furthermore, lack of adequate support staff, lack of opportunities for continuous capacity development and lack of opportunities for career development seem to be recurrent issues faced even by countries with well-developed systems (UNESCO 2018). The needed technical capacity and the ability of the M&E personnel to perform such wide-ranging tasks seldom gets much attention (Holvoet, 2014). It is very important to note that the effectiveness of evaluation and assessment relies to a great extent on ensuring that both those who design and undertake evaluation activities as well as those who utilize their results possess the proper skills and competencies (OECD 2019).

M&E in education varies widely in approach and methodology depending on the objective, purpose, and socio-economic context. Since education includes formal, non-formal and informal modes of learning that cover all levels and ages from pre-school to adult learning, it is difficult to have a single framework to monitor, measure and evaluate the entire spectrum

(UNESCO 2018). This is supported by Grauwe and Carron (2011), accordingly the quality of education is a multidimensional concept composed of three inter-related dimensions: the quality of the human and material resources available (inputs); the quality of the management and teaching-learning processes taking place (processes); and the quality of the results (outputs).

DFAT 2017 also summarized challenges toward building a successful M&E. They pointed out that these challenges may be due to the following reasons: M&E may not be built into activities or programs; indicators and other measures may be poorly specified; lack of reliable and valid data; and limited capacity in data analysis. They concluded that M&E systems were probably set up to include focus on results, but evaluations of projects or programs tend to default to a model of evaluating inputs, activities and outputs. The conflicting issue is that evaluators tend to follow a model that makes sense to them intellectually, but failed to vary their approach based on the purpose of evaluation and program context.

Thus, there are different understandings of what constitutes a good school, effective teaching and learning and what needs to be evaluated in schools. Different stakeholders may interpret and mediate the evaluation exercises differently, and develop differing diagnoses and recommendations of what needs to be improved. There is a need, therefore, for the school evaluation model to be clearly constructed, so that the implementers have less room to interpret and mediate the evaluation in ways which allow them to insert their own agendas (Abdourahmane 2021). These differing views, overwhelming unutilized data collected, lacking coordination among data producers and users, lacking M&E experts and proper utilization of digital technologies are the prevailing challenges in school monitoring and evaluation according to the varying stakeholders' perspectives. From these, indicators are identified. These challenges as well as its benefits were factored in to recognize prevailing indicators that constitute towards a successful SMEA.

### **Components of A Successful SMEA**

A good M&E system has an existing framework that enables decision-making process more practical and effective. However, one model of quality assurance cannot fit all systems (OECD 2013). In designing appropriate model of school monitoring for improvement, the model needs to be based on an extensive analysis of the problems of quality, how the problems occur and how they cause to affect each

other. This model needs to be based on appropriate change models and workable strategies. This requires methodical quantitative and qualitative evidence on the performance of different levels of the schooling system (de Clercq, 2015). This quantitative evidence includes data on access such as number of learners, availability of human and material resources to cater the needs of the learners, and the existence of usable facilities etc. These input indicators are analyzed and comparably linked with the indicatives of performance usually derived from the qualitative data of the performance of the learners. There are difficulties in the process of comparable linking of qualitative and quantitative data considering that in some countries where some key components of a comprehensive evaluation framework are underdeveloped or do not exist (OECD 2013).

The Philippines is a member country of the United Nations Educational, Scientific and Cultural Organization (UNESCO) and was included in the 2018 review for M&E practices. Product of their review to different M&E practices among member nations was an evaluation overview that aimed at assisting members to review, refine and, whenever appropriate, redesign their M&E systems. The review discussed factors that can build effective and efficient M&E systems, including the use of digital technologies, data protection, technical capacities, and political commitment and leadership. The review also identified barriers in the implementation of M&E systems which were the relevance and reliability of data, active stakeholder involvement, and the ownership and use of evaluation findings. Three building blocks for effective M&E systems were then identified to aid reflection and policy learning from international and comparative experience. These were promoting strong national ownership, strengthening systematic coordination, and designing M&E systems a tool for decision-making at the national, subnational and school levels.

Similarly, the European Union observed that countries share several common policy challenges and opportunities in their approach to quality assurance. It specified the design for quality assurance in education system to be diversified, decentralized and multi-level. It encouraged data transparency, synergy, collaboration and communication with stakeholders and prioritized human and financial resources. Sadly, most OECD countries have not conceived evaluation and assessment as an integrated framework but instead developed a number of independent components operating at different levels. Evaluation and assessment in school systems need to be conceived

holistically, as a whole framework, building on the interdependence of its parts in order to generate mutual support, avoid repetition, and prevent inconsistency of objectives (OECD 2013).

Recent research on how to measure monitoring and evaluation system effectiveness by Abdourahmane 2021 clarified critical requirements in building and implementing an effective M&E system. It showed the dimensions of an effective M&E System. It also showed how an effective M&E system contributes to the organizations' improved policy-making, decision-making, and capability to advance sustainable development goals. Accordingly, there are significant linkages between M&E-system quality, M&E-information quality, and M&E-service quality. The results highlighted that the Results-Based Management practice of organizations, the effective knowledge and information management culture, including learning, and the evidence-based decision-making practice are directly influenced by effective M&E system. Thus, effective M&E system contributes greatly to expand improved policy and program design, improved operational decisions, improved tactical and strategic decisions, and improved capability to advance development objectives.

These findings led to a proposition that the key to a successful decision-making for organizational improvement is a well-designed M&E system with the elaboration of a clear manual defining what to monitor and evaluate, the roles and responsibilities of the different actors, a realistic M&E work plan and budget, the availability of actionable technical and financial resources, as well as a good M&E system maintenance including capacity building of core actors involved in its implementation (Abdourahmane 2021). An effective M&E system can provide evidence-based learning when answering So what? question, which is the essence of RBME or the Results-Based Monitoring and Evaluation (Kusek & Rist 2004). They suggested six (6) criteria to characterize knowledge and information management 1. Sharing best practices; 2. Improved productivity; 3. Improved employee skills; 4. Improved communication; 5. Enhanced quality; 6. Enhanced collaboration.

Finally, from the foregoing discussions, it can be deduced that poor or underdeveloped SMEA implementation practices leads to challenges in data reliability, stakeholders involvement, accountability of findings, proper utilization of digital technologies, commitment. While its benefits were the counter reaction of well-planned and well-executed M&E which persuade transparency, synergy, collaboration,

improved decision and policy making and improved operational and strategic decisions.

## Methodology

### Research Design

This study used a mixed-method sequential exploratory research design anchored on a mix of practice-based, exploratory, descriptive, quantitative and qualitative methods. Combining the elements of qualitative and quantitative research approaches (Johnson et al., 2007), the first phase was a qualitative exploration seeking to capture the SMEA perspective of experiences among teachers and school heads. This was done to gather implementation experiences and issues considering that SMEA has scarce resources and studies for reference. Applying the principles of grounded theory, sets of systematic inductive methods for conducting qualitative research aimed toward theory development (Charmaz 2009), a qualitative inductive analysis on the challenges, benefits, conceptions, and characteristics of SMEA implementation from the implementers' perspectives was the groundwork of the succeeding phase. The second phase was the quantitative survey questionnaire elaborated from the thematic analysis result of the first qualitative exploration. This second instrument was comprised of the emerging themes of SMEA implementation and was organized in a five-point Likert scale.

### Research Locale and Respondents

This sequential exploratory research evaluation study was conducted to selected public elementary and secondary schools in the Division of Southern Leyte. This medium-sized schools division whose office is situated at the hub of Maasin City was chosen as the research locale since this was the scope of the researcher's field of work. Out of 23 districts comprising 297 public elementary schools and 42 public high schools, a sample size between 400 to 500 personnel was targeted to participate in this study to attain a good to very good adequate sample size for factor analysis (Comrey and Lee 1992).

Table 1. *Respondents of the Study*

Demographic Variable	No. of Respondents
Anahawan	3
Bontoc	25
Hinunangan	21
Hinundayan	9
Libagon	13
Liloan	35
Limasawa	33
Macrohon	23
Malitbog	14
Padre Burgos	8
Pintuyan	60
Saint Bernard	78
San Francisco	11
San Juan	15
San Ricardo	8
Silago	8
Sogod 1	10
Sogod 2	26
Tomas Oppus	10
Total	414

Position	
Teacher	209
School Head	205
Educational Attainment	
College Graduate	190
MAEd/MAT or its equivalent	184
EdD/PhD or its equivalent	40
Length of service (in years)	
Below 5	69
5 – 10	117
11 – 20	127
21 – 30	64
31 & Above	37

The length of school administration experience was used as basis in selecting school head respondents in the study. They referred their SMEA implementation experience on their school assignment with at least three (3) years of school management. Each sampled school was encouraged to participate with 2 respondents, one (1) school head and one (1) teacher-respondent functioning as school Information Communication Technology (ICT) coordinator for at least 1 year or was a member of the School Quality Management Team (SQMT). School heads handling multigrade schools was considered a sample as long as it met the criteria of 3-year-experience of school management. SMEA started its full implementation in SY 2016-2017, hence with reference to that year onwards until SY 2019-2020, the 4-year-cycle of implementation was analyzed in this study.

### Research Instrument

**Qualitative Phase.** A researcher-made questionnaire in a form of an open-ended 3-item-questions was used to gather SMEA implementation experiences. These questions validated by a DepEd M&E expert, encouraged the respondents to answer explicitly and discreetly based on their SMEA implementation experiences, challenges, and ideals. Using thematic analysis, a powerful tool and flexible method for qualitative analysis (Kiger & Varpio 2020), all teachers and school heads were encouraged to share experiences and observations until saturation level of perceptions was obtained. The emerging indicators generated from this qualitative analysis categorized as input, process and product (output/outcome) component of Program Theory of Change Logic Model. This process caused the formation of the second instrument.

**Quantitative Phase.** This phase, the output of the qualitative phase, was formulated in a questionnaire (see Appendix G) format using Likert scale with range 1-5 (1 – strongly disagree, 2 – disagree, 3 – neither agree nor disagree, 4 – agree, 5 – strongly agree) and was sent to the Office of the Schools Division Superintendent to secure approval for the conduct of the research. This 95-item-statement survey questionnaire constituted the substance of SMEA implementation perspectives among teachers and school heads.

Prior to its conduct, a series of content and validity tests were treated to the instrument by a group of three (3) M&E experts in the Department of Education who provided written comments critically including grammar, voice and accuracy of terms. Content validity is the extent of a measurement tool to represent the measured construct (Yusoff, 2019). To calculate the content validity index, that is to get an average rating of the three (3) content experts, the ABC of content validation by Yusoff (2019) was utilized. According to Polet and Beck (2007), the minimum acceptable expert number is two (2), and for three (3) experts, an average rating of 1 was established. Each content expert was encouraged to give a relevance rating within a scale of 1-4 (1 - least appropriate; 4 – most appropriate). The relevance scale of 3 or 4 was recorded as one (1) while expert's rating 1 or 2 was recorded as zero (0). Thus, out of the 110 original items, fifteen (15) statements with average rating below one (1) were removed. Finally, the instrument was run for a pilot test involving fifty (50) respondents. Result was subjected to an item analysis specifically Cronbach alpha test for reliability for improvements prior to the dissemination to the intended respondents. Cronbach alpha is generally used to measure the internal consistency of the questionnaire. A reliability of 0.7 or higher is required for a pilot study prior to the mass dissemination of the instrument.

The validated instrument was run for a pilot test involving fifty (50) teacher or school head respondents. Theoretical saturation was used as guide in determining this sample size. Results were subjected to an item analysis specifically Cronbach alpha test for reliability and for improvements prior to the dissemination to the intended respondents. Cronbach

alpha is generally used to measure the internal consistency of the questionnaire. The instrument scored 0.9665 Cronbach alpha using minitab's item analysis facility. The instrument was considered valid and reliable since a reliability of 0.7 or higher is required for a pilot study prior to the mass dissemination of the instrument.

### Sampling Technique

For the first instrument, a random sampling technique was employed to capture discreet and verbatim descriptions of SMEA implementation experiences. While a purposive sampling technique which relies on the judgement of the researcher in choosing respondents of the study was utilized for the second tool. All teachers and all school heads with at least 3 years school administration experience were considered sample of the study.

### Data Gathering Procedure

Both qualitative and quantitative instrument were disseminated through google forms. The links were sent through group chats (GC) among District and School ICTs for teacher respondents and among different GCs of functional units in the Division Office to secure higher percentage of school heads' participation.

## Results

This section presents the data analysis and interpretation of results and discussions of SMEA perspectives and practices. Topics were organized beginning with the implementers' perspectives of SMEA, indicators derived from varying SMEA perspectives and factors of successful SMEA implementation.

### Implementers' Perspective of SMEA

The teachers and the school heads were the prime users of SMEA. Their profound understanding and appreciation of this system affected the manner of their implementation. To answer the first problem of this study concerning the perspectives of the people involved in SMEA, each respondent was asked to describe their implementation experiences and to describe its effects in their school (*see Appendix E&F*). The succeeding discussions presented their insights, experiences and practices of implementation.

### Teachers' Perspectives

A total of thirty-five (35) teacher-respondents participated in the qualitative survey concerning their SMEA perceptions and experiences. Theoretical saturation was used as guide in determining this sample size. These were the common SMEA perceptions and experiences narrated by the teachers, the group that is frequently required with data on students' performance. They said that SMEA is a process which helps them recognize their strengths and weaknesses in such a way that it gives them feedback on the quality of their teaching as well as the performance of their learners. This is the avenue for finding solutions collaboratively to issues and concerns affecting students' learning. In this manner, SMEA, when executed clearly, serves as basis for shared learning on good practice, effective strategies and tools, and subsequently, supports well-informed management through evidence-based decision-making (M&E Australian Government 2018).

*"In our district, all schools are conducting SMEA with MOVs and documentation as basis for planning and decision-making. With SMEA, we can assess, evaluate and analyze students' performance and to give remedy and solutions to failing students. We also have district MEA to monitor the conduct of SMEA, so the district supervisor can provide appropriate TA."*

These feedback of school practices prompted an insight that the teachers appreciated the value of SMEA in the teaching and learning process because it helped diagnose weak areas in curriculum (Kinyua 2013). They valued its importance as a mechanism for a data-driven decision-making. Despite its usefulness, the teachers felt SMEA data record keeping was a challenge. Most of the data already submitted to the school head were asked again from them whenever there were reports required by the district or division office. They recounted that even at times when the teacher was on travel or on official business, the teacher was compelled to provide an estimated data which caused the discrepancy.

*"There should be someone in-charge to collect the data for keeping so that they don't have to ask the same data from the teachers every time they need it. The discrepancies lie in the fact that there is no proper system in data keeping."*

There was also a challenge in data reliability and validity. The teachers revealed that the school admin asked for data urgently, as a result, most of the data given were not true, since these data needed ample time to gather. Moreover, the qualitative survey

recorded that the data gathering and data template completion were additional tasks delegated to teachers. To beat the time of compliance, school data were forwarded to the district and division office without validation on the correctness of data entry, without data interpretation and without awareness on the relevance of the submitted figures to the school performance. As a consequence, these practices resulted to a continuation of previous habit of simply copying and submitting information found on templates rather than deeply engaging with analysis to support decision-making (Read & Atinc 2017).

### School Heads' Perspectives

The qualitative survey on SMEA implementation experiences was participated by ninety (90) School Heads (SHs) in the Division of Southern Leyte. The SHs admitted that they cannot reinforce school improvement without SMEA. They reported several advantages of SMEA practice when implemented with quality. They were guided by SMEA, most importantly in recognizing the strengths and weaknesses of the school. Hence, the result of quarterly SMEA provided an awareness of the quarterly progress of the learners and offered an overview of the performance of the school. These arguments emphasized the crucial role of SMEA in activating good leadership into practice and instilling accountability which leads into school improvement (Miller 2020).

*"SMEA is so far an effective tool for planning and decision making. It serves as our baseline on what and where to proceed with our functions and it leads us to the direction where we supposed to. The implementation of SMEA in my school contributed a lot in improving school projects and performance."*

Thus, SMEA is an essential tool of management and with reliable information, SMEA can provide a project or a plan with evidence of what is right and what is wrong and why the results are positive or negative (Lapshina & Romanovskaia 2019). It was also highlighted that community involvement is marked as an SMEA identity. The SHs claimed that SMEA helped in forging partnerships and linkages and escorted the collaborative efforts of school personnel and different stakeholders. They were acquainted on the targets and accomplishments in the different programs, projects and activities of the school and community which resulted to transparency and accountability. This is why the stakeholders' support and cooperation portrayed a very crucial role in the implementation of SMEA. Their 100% attendance and

commitment to the school community were the cartilages that keep the school growing and improving. However, according the SHs, during scheduled SMEA review, the 100% participation of their stakeholder is only speculative, due to conflicting priorities of barangay officials, they sent representatives on their behalf which delimits the capacity to pose a probable solution to the problems of the school.

Despite several benefits of SMEA in the process of school improvement, the school heads also lamented on the need for a reliable system data storage. They acknowledged that the best possible monitoring and evaluation process suitable to any school was to make a system in the submission and keeping of all the reports to lessen inconsistencies in data. Data discrepancies imply ineffective use of data which can be attributed to lack of easy access to data (Elacqua & Alves 2015). Some of the data required in the template are not relevant in the real situation. This is the result of too much attention is apportioned to a single template rather than on a contextualized design (Read & Atinc 2018), inciting confusions, difficulty, and pressure caused by time restrictions, demanded from overlapping school responsibilities.

Moreover, with the urgency of the reports required by the higher office and the conflicting schedules of different call ups and seminars of the District, Division, Regional and National office, school data validation was done haphazardly, resulting to data disparity. The SHs have also reported that school data submitted to the District and Division Office did not coincide with school enrolment generated from the Learner's Information System (LIS). These inconsistencies were also true to other countries particularly states in India where data derived from their Resource Management Systems do not compare favorably with data derived from the school census (Karnataka, 2014; Madhya Pradesh, 2014). In the case of big schools, there are instances of late submission of the teachers, considering the large number of populations of teaching and non-teaching staff, the data collection process become challenge.

These issues were synonymous with Madzimure and Mashishi (2020) findings that SMEA is challenged by lack of communication and coordination, poor reporting system and insufficiency of usable data. However, SMEA when implemented with quality and strategic commitment becomes effective in empowering and engaging stakeholders, informing school leadership and teaching practice and documenting progress toward educational transformation and student access.

## Indicators Derived From Varying SMEA Perspectives

The latter discussions described the highlights of SMEA practices and implementation perspectives among teachers and school head. These verbatim statements or the qualitative information were the emerging indicators derived from those varying perspectives of SMEA implementation, were sanitized and organized quantitatively constituting a 95-item-indicator. Out of these indicators, thirty-five (35) items comprised of the implementers' appreciation of SMEA benefits which involved problem-solution identification, school's status and performance overview, point of reference, framework of school plans and actions, tool for recognizing effectiveness of school initiatives, inventory of school's resources, accountability checker, feedback mechanism, strengths and weaknesses recognition, community support system, synergy and focus. These concepts were the underlying principles stipulated in the SMEA Handbook 2011 p.4. This information affirmed that the school heads and the teachers were completely aware of the importance of SMEA in in the attaining the desired quality of education. They both perceived a high level of implementation in the SMEA system (Paragoso & Barazon 2019). These responses signified the commitment of the school to implement SMEA. Both the teachers and the school heads have seen the potential of SMEA in regulating the desired level of quality, increased accountability, and stimulate improvement (Paragoso & Barazon 2019).

Additionally, the sixteen (16) items captured the SMEA processes and the manner the school was implementing SMEA. It described the quality of SMEA practices in the Division of Southern Leyte. These practices included data consistency, reliability, relevance, accuracy and data review. These items illustrated the practices and desires of SMEA implementers to obtain quality information from the start of data collection, validation and up to the reporting phase. The schools were adhering to these principles because they understood the significance in generating valid and reliable data that serve as basis for planning and decision-making thereby helping schools acquire an efficient improvement initiative. The goal of SMEA is to provide objective information that can inform decision-making to continuously improve the school's performance or health in curricular programs and projects, education resources, teaching and learning, teacher and learner performance, school management, productivity and community partnership to achieve the desired education outcomes (SMEA Handbook 2011).

Another group of indicators derived, consisting of fifteen (15) items, was the usefulness of SMEA in attaining quality learning outcomes. While the teachers and school heads had experienced bottlenecks during implementation, they also confirmed that SMEA has paved the way in the delivery of quality teaching and learning as observed in these responses. With SMEA, teachers' efficiency, teachers' effective teaching strategies, teachers' classroom management were easily tracked for progress and monitored for possible technical assistance. Hence, the teachers were given feedback on the quality of their teaching and will develop a high sense of efficacy and will likely acquire more knowledge and implement new and effective strategies with fidelity (Young 2018), in a broader sense, materialize the school's effort towards the efficient attainment of the national goals.

On the other hand, there were twenty-one (21) items that revealed the limitations and challenges of SMEA. Despite its worth and significance in ensuring quality learning outcomes, these indicators enumerated the challenges experienced by the schools in the implementation of SMEA. The teachers and school heads tended to complain about the data gathering template, data collection redundancy, time constraints in data gathering and validation cycle, higher offices' response to reported problems, limited skills in data characterization, numerous data requirements, inconsistent data result, conflicting priorities, data system storage, stakeholders' attendance, and teachers' prompt submission of reports. Reports had observed on the amount of time and attention spent on the formulation and designing of a single data collection template for school planning documents rather than promoting contextual implementation (Read & Atinc 2017). This posed pressures to teachers and school heads since they perceived these tantamount of data as burdensome and useless and did not contribute anything to the progress of the school (Paragoso & Barazon 2019). Moreover, they moaned on the lack of reliable data system storage that is accessible by all end users. Because of time lags, inadequate data sharing policies and lack of transparency, data are not being used to their full potential (Read & Atinc 2017). This absence resulted to a repetitive collection of similar type of data which in turn sapped the time of teachers, reduced their teaching contact time and consequently affected the entire learning outcomes.

Finally, the eight (8) items characterized the M&E skills of the school heads and the teachers in the practice of SMEA. With a mean percentage of 3.94 (see Appendix I), the 414 teacher and school heads respondents believed that they possessed the necessary

skills in monitoring the progress of their school and in evaluating the accomplishment of their plans. These skills included strategic planning and decision-making, data validation, data analysis, characterization, and ICT skills. They were oriented on the M&E roles and responsibilities and were committed to deliver plans aligned to national goals. However, with the complexities of their duties, head teachers and school principals are often unable to satisfy elaborate data collection, analysis and implementation processes as demanded by DepEd guidelines. Although instructions are explicit, training is provided, planning and analysis tools are provided, the school quality management team (SQMT) often do not have time and resources or capacity to undertake all these steps (Read & Atinc 2017), particularly for small schools where teachers are handling multigrade levels and are performing duplicated chairmanship to different school programs.

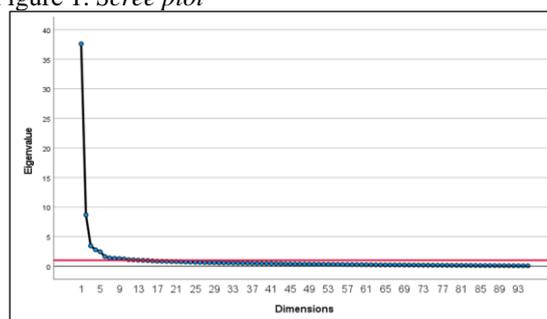
### Components of Successful SMEA Implementation

Table 2. *Parallel analysis (PA) and Number of Factors/Components Retained (Only for components with initial eigenvalues greater than 1)*

Components	Initial Eigenvalues	Simulated eigenvalues from PA	Cumulative % variance explained
1	37.617	36.553	39.597
2	8.682	7.660	48.736
3	3.440	2.431	52.357
4	2.796	1.825	55.300
5	2.445	1.536	57.874
6	1.636	0.747	59.597
7	1.397	0.564	61.067
8	1.337	0.543	62.474
9	1.288	0.528	63.830
10	1.237	0.492	65.132
11	1.096	0.394	66.285
12	1.072	0.400	67.413
13	1.023	0.409	68.490

The emerging indicators of SMEA perspectives discussed in the previous section were treated with exploratory factor analysis (EFA). This multivariate analysis tool was used to facilitate the configuration of components among these 95 statements to answer the third problem of the study. To refine the components of indicators of varying perspectives and experiences among implementers of SMEA in order to answer the third problem of the study, the Kaiser criterion or the eigenvalue rule was established. This criterion suggests that factors with an eigenvalue of 1.0 or more are retained for further analysis. In Table 2, there were thirteen (13) components or dimensions with eigenvalues greater than 1 and these dimensions accounted for 68.49% of the total variance in the data.

Figure 1. *Scree plot*



Moreover, Figure 1 displayed the scree plot of eigenvalues of 95 factors which were listed in decreasing order. The purpose of examination was to retain all the factors above (i.e. to the left of) the inflection point (i.e. the point where the curve starts to level off) and eliminate any factor below (i.e. to the right of) the inflection point (Hair, et al 2019). It can be seen in Figure 1 that the curve started to level off after the fifth dimension/component.

In Table 3, all the initial eigenvalues are all greater than the simulated eigenvalues for all 13 dimensions, however, the differential gets smaller and smaller and not significant after the 5<sup>th</sup> dimension. Therefore, based on the scree plot and parallel analysis a five-factor solution was retained. The emerging SMEA experiences, practices and perspectives were reduced from ninety-five (95) indicators down to five (5) factors. This five-factor solution accounts 57.87% of the total variance.

The whole process of factor reduction underwent a series of examination until five (5) significant factors which can explain sufficient proportion of the variance of the observed indicators or statements. Finally, these were the emerging indicators of varying perspectives among SMEA implementers. They were grouped into five (5) significant factors namely; school’s appreciation of SMEA benefits, SMEA practices, limitations/challenges of SMEA implementation, SMEA usability in ensuring quality teaching and learning and M&E skills of SQMT. Therefore, the five (5) significant factors of varying SMEA perspectives and practices were the following:

**Factor 1** with highest initial eigenvalue, established an observation that the teachers and school heads appreciated the benefits gained from their school monitoring, evaluation and adjustment initiatives. They both had a conviction that SMEA was beneficial to school improvement operations in access, quality or governance because it guided them in recognizing

their strengths and weaknesses, in prioritizing their resources, in leading them towards strategic planning, and in involving stakeholders in decision-making. Referring to the theory of change, any change or improvement works best when the school head has a well-developed understanding of how change works. Their appreciation of the efficiency and effectiveness system prompted them to apply its processes and eventually gained favorable results. It is thus evident that both teachers and school heads agreed that the implementation of SMEA would help DepEd in achieving its goals (Paragoso and Barazon 2019).

**Factor 2** conceptualized the prevailing practices of SMEA implementation. With the initial eigenvalues of 8.682, it was evident that the schools in the Division of Southern Leyte were attempting to implement SMEA with quality. Most of the schools were trying to align their planning and decision-making with the data generated from the reports of their students' performance, school status and resources, school improvement initiatives etc. They also acknowledged that the current SMEA tool or school data gathering template (SDGT) was so far efficient and helpful. This is how an effective M&E system contributes greatly to school's improved operational decisions, effective knowledge and information management culture, learning and evidence-based decision-making (Abdourahmane 2021).

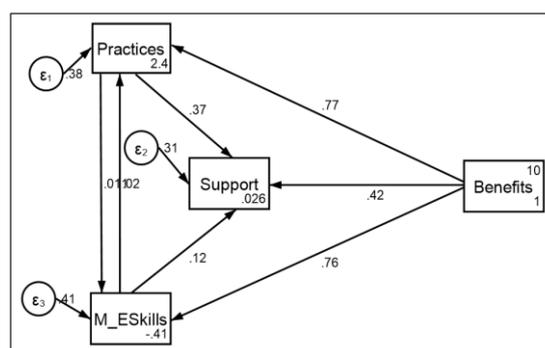
**Factor 3** with initial eigenvalues of 3.440, illustrated the usefulness of SMEA in the enhancement of the teaching and learning process. The teachers and the school heads confirmed the usefulness of SMEA in generating feedbacks and appraisals on the effectiveness and efficiency of their teaching and instructional supervision. This process of generating feedback is very valuable in obtaining a feeling of competence and autonomy, acceptance and satisfaction (Mulder, 2012). Through a systematic monitoring and evaluation, the school heads were able to help their teachers build on their strengths and reduce their weaknesses to get the best out of them, which is the key to influencing work in the classroom and to raising the standards achieved by students (Day & Summons 2016).

**Factor 5** with initial eigenvalues of 2.445, gave insights of the M&E skills of the implementers of SMEA. They were the group of teachers delegated as school ICT, subjects coordinators, department heads, with the school head acting as the chairman of the school quality management team (SQMT). The result presented that the SQMT was functional and were equipped with skills in performing their roles and

commitment in data gathering, data validation, data analysis and interpretation, reporting the status of the progress and accomplishment of the school to its stakeholders, and evaluating their overall performance. Although this factor earned only a mean of 3.94 (see Appendix I), the overall assessment of their M&E skills fell on the category that the implementers do agree that they perform the analysis of school performance data because they were equipped with such skills. These skills are essential requirements in establishing a quality management system, where application of efficient processes, tools, and skills are crucial in the attainment of desired knowledge, skills, attitudes and values of the students at some expected level (Bouckaert et al., 2016).

It can therefore be deduced that from the emerging factors: Factor 1, the school's appreciation of SMEA benefits; Factor 2, how the school is operating SMEA; Factor 3, usefulness of SMEA in attaining quality instruction; and Factor 5, the M&E skills of SQMT, were the components towards a successful SMEA implementation. Hence, Factor 4 which captured the limitations and challenges of SMEA implementation yielded the lowest mean score of 3.29 (see appendix I). The respondents seemed to neither agree nor disagree with the challenges of implementation. These results postulated that the level of difficulty of SMEA implementation was quite manageable. With proper training, skill enhancement and focus, teachers and school heads can implement SMEA successfully. Concludingly, successful M&E depends on the capacity to involve well-trained personnel. However, lack of adequate support staff, lack of opportunities for continuous capacity development and lack of opportunities for career development seem to be recurrent issues faced even by countries with well-developed systems (UNESCO 2018).

Figure 2. Initial Path Diagram Depicting Interrelationship of SMEA Key Components



Using this path diagram, we looked into the interrelationships of SMEA key components to answer the fourth research question. As discussed previously, four (4) factors surfaced as the key components toward successful SMEA implementation. How these factors directly or indirectly affected each other, or how these factors penetrated totally at each other will be analyzed using the structural equation model and was interpreted using Cohen's effect size of strength association. The following themes were the emerging perspectives of SMEA implementation in the Division of Southern Leyte.

Factor 1 : Implementers' appreciation of the benefits of SMEA

Factor 2: Implementers' engagement to good SMEA practices

Factor 3: SMEA's support in the teaching and learning process

Factor 5: Implementers' M&E skills

The implementers' appreciation of the benefits of SMEA contributed to a strong positive direct effect (0.77) towards good practices of implementation. The level of implementers' appreciation of SMEA benefits influenced the level of implementers' engagement to the good practices of SMEA. Specifically, the level of implementation was to some extent, dependent on the implementers' perception of the benefits and advantage of doing such. As such, the more the users and implementers understood its significance and effects, the more the school adhered to its principles and thereby practiced its process, creating a culture of efficient SMEA habit. This culture stimulates continuous improvement of the teaching and learning process - the core of all undertakings of the Department of Education. In like manner, this awareness and appreciation of the importance and benefits of SMEA attracted a strong positive (.42) and significant ( $p=0.000$ ) direct effect on quality teaching and learning process. This strong positive correlation denoted that the appreciation of SMEA benefits had direct effects on the way SMEA was operated for the enhancement of the teaching and learning process. Hence, this rolling of effects persuaded a significant strength of association towards promoting good SMEA practices, vibrating a chain of positive reaction to the enhancement of instruction. This positive effects towards teaching and learning outcome was the targeted ultimate goal, that was expected as a result of SMEA, a quality management strategy by which all implementers, contributing directly or indirectly to achieving a set of results, ensure that their processes, products and services contribute to the achievement of desired outputs, outcomes and higher level goals and

impact (Kusek and Rist 2004).

Moreover, this causal reaction established in the theory of change resonated in the engagement of good SMEA practices and presented a medium positive (.37) effects yet highly significant ( $p=0.000$ ) (see Appendix K) relationship towards the improvement of the teaching and learning process. Because the schools in the Division of Southern Leyte judiciously practiced SMEA, it resulted in a positive and significant direct effect towards the schools initiative in enhancing its teaching and learning process. The quality of management exercised by teachers and school heads have direct and indirect effects on student learning – direct effects through building organizational learning and leadership capacity that has a clear focus on teaching and learning and subsequently indirectly affects students' motivation, behavior, engagement, learning and achievement (Day & Sammons 2016). Furthermore, this positive chain of reaction could be traced back on the theoretical foundation of this study where it was explained that the approach of how and why a sequence of logically linked events such as a school intervention, a project, a program, a policy, a strategy is understood, contribute to a chain of results either positive which are beneficial or negative which are detrimental. In this case, good SMEA practices were beneficial and a valuable vehicle towards achieving quality learning. This is the main objective of the quality management system, to assure the quality of the teaching and learning experience of the learners (DepEd Order No. 44, s. 2010), and to enhance student outcomes through the improvement of practices, teaching methods, school leadership processes, and directions of education policy (OECD 2013).

On the other hand, the skills on monitoring and evaluation of the teachers and school heads had a little (.12) yet significant ( $p=0.008$ ) positive direct effect to support to teaching and learning. This correlation depicted a significant direct effect between the approach of SQMT in using its M&E skills for appropriate assessment and accurate feedback onto the improvement of teaching and learning strategies and instructional assistance. To the teachers, usually members of SQMT, their expertise in characterizing the specific and general status of students' performance offered them reliable information on the progress of the student's learning as well as a reflection of their teaching efforts and strategies. To the school heads, being the chairman of SQMT, the approach of their monitoring and evaluation on teachers' pedagogy, either bounded by correct and validated information or not, surely affected the kind

of information to be used for planning and decision-making. M&E system is then a learning platform for improved decision-making (Abdourahmane, 2021). Hence, insufficient or adequate M&E skills among SQMT has a slightly significant direct effect on the teaching and learning process.

Plainly, the implementers' appreciation of SMEA benefits influenced a broad range of factors in the quality management initiatives of the schools. It perpetuated a positive effect (.76) on the approach of M&E skills of the teachers and the school heads. This correlation portrayed how the effects of implementers' appreciation of the benefits and how it motivated into harnessing their M&E skills, specifically in enhancing their ICT skills, in handling large data for analysis and interpretation to be able to describe the performance of the school. These factors have both direct and indirect effects on student achievement since they are able not only to influence student achievement directly but also to influence the teaching and learning situations (Kyriakides et al., 2000). Hence, with the benefits obtained from efficient tracking of schools' progress towards the alignment of school plans to national goals due to efficient SMEA implementation, it is but necessary that SQMT must perform its function, otherwise, erroneous and inaccurate plans not suitable to the school needs will be executed by the school management.

In conclusion, the quality of education is multi-dimensional concept (de Grauwe & Carron, 2011) composed of three interrelated dimensions, the inputs or the quality of human and resources available, the activities or the quality of the management and teaching learning processes, the outputs or the quality of results. These dimensions were imbedded in the components of the theory of change: inputs referred to the implementers' appreciation of SMEA benefits; activities were the SMEA practices and M&E skills; and output was the strengthened support to the teaching and learning process. These components showed causal effects which were significantly affecting each other, depicted the core of school system. It revealed that the actors were implementing the processes well because of appropriate input which resulted to beneficial services and products – desirable learning experiences that produced proficient learners. This the ultimate aim of quality assurance, to ensure that learners have the best learning opportunities possible (UNESCO 2018). Finally, the interrelationship among these factors were sketched into a model so that users and practitioners can easily trace its direct association towards the enhancement of the enhancement of the teaching and learning process

and subsequently strengthen its implementation to facilitate efficient school management system.

## Discussion

The goal of this study was to explore the perspectives and experiences of implementers of SMEA to create a model of effective SMEA implementation. It was found out that there were four (4) related factors essential for the formation of model for effective SMEA. It was also concluded that the fourth factor which depicted the challenges and limitations of SMEA implementation was insignificant.

1. SMEA implementers were availing of the benefits and usefulness of SMEA in sustaining good school improvement practice.
2. There were five (5) factors derived from varying perspectives of SMEA implementation: the implementers' appreciation of SMEA benefits, SMEA practices employed by schools, SMEA usefulness to quality instruction, SMEA limitations and challenges, and knowledge and skills of SMEA implementers.
3. Among these five (5) factors, four (4) of these were the key components towards a successful SMEA implementation.
  - Factor 1 : Implementers' appreciation of the benefits of SMEA
  - Factor 2: Implementers' engagement to good SMEA practices
  - Factor 3: SMEA's support in the teaching and learning process
  - Factor 5: Implementers' M&E skills
4. These key components were interrelated to each other significantly, forming a causal chain of effects which originated from an input, SMEA benefits, resonated to the activities or practices and M&E skills, and resulted to an output, fostering support to teaching and learning process.

## Conclusion

The four (4) significantly correlated key components of successful SMEA implementation described the importance of commitment and appreciation to this existing quality management system. As articulated in the theory of change, quality inputs reverberated quality outputs; harmonized understanding and synergetic appreciation of SMEA principles and processes contributed to an improved appraisal of the teaching and learning process.

## References

- Abdourahmane, B. (2021). How to measure monitoring and evaluation effectiveness? ResearchGate. African Evaluation Journal. Retrieved from <https://www.researchgate.net/journal/African-Evaluation-Vol-9-No-1-a553> DOI:10.4102/aej.v9i1.553
- Adalety, E. J. & George, T. J. (2019). The Relevance of Monitoring, Supervision and Evaluation of Stakeholder Participation in Electronic Governance Projects Implemented in Public Sector Institutions: A Review of Literature. *Journal of Humanities and Social Science (IOSR-JHSS)* Volume, 24, pp. 52-60. Ann W. Frye & Paul A. Hemmer (2012) Program evaluation models and related theories: AMEE Guide No. 67, *Medical Teacher*, 34:5, e288-e299, DOI: 10.3109/0142159X.2012.668637
- Aziz, S. (2021). Implementation of CIPP Model for Quality Evaluation at School Level: A Case Study. Retrieved from EJ1180614.pdf (ed.gov) on September 10, 2021
- Bajaj, et al (2018). Total quality management: a critical literature review using Pareto analysis. Retrieved from <https://www.emerald.com/insight/content/doi/10.1108/IJPPM-07-2016-0146/online/11/2021>.
- BrckaLorenz, A. (2017). *Internal Consistency Reliability*. Thousand Oaks, CA: Sage Publications, Inc. Retrieved from <https://www.semanticscholar.org/paper/Internal-Consistency-Reliability-Shuttleworth/6bd8727ad21790a48341349603ac8531b08a81b4>
- Cavanaugh, C., McCarthy, A., & East, M. (2014). An innovation framework for holistic school transformation: ten critical conversations for the 21st century. Redmond, WA: Microsoft World Public Sector.
- Curray, D. (2019). Perspective on Monitoring and Evaluation. Volume: 40 issue: 1, page(s): 147-150. doi <https://doi.org/10.1177/1098214018775845>
- Day, C. and Sammons, P. 2019. Successful school leadership. Retrieved from <https://files.eric.ed.gov/fulltext/ED565740.pdf> on September 4, 2021
- Edmund, S. (2012). Designing *monitoring and evaluation* systems in PEPs. Switzerland. ILO Publications (Rights and Permissions), International Labour Office, CH-1211 Geneva 22, Switzerland. ISBN 9789221267713; 9789221267720.
- Elacqua and Alves, (2015). Designing effective monitoring and evaluation of education systems for 2030: A global synthesis of policies and practices UNESCO Education Sector Division for Policies and Lifelong Learning Systems (ED/PLS) Section of Education Policy (ED/PLS/EDP). Retrieved on June 22, 2022 from [http://designing\\_effective\\_monitoring\\_and\\_evaluation\\_of\\_education\\_systems\\_for\\_2030\\_a\\_global\\_synthesis\\_of\\_policies\\_and\\_practices\\_unesco\\_education\\_sector\\_division\\_for\\_policies\\_and\\_lifelong\\_learning\\_systems\\_ed\\_pls\\_section\\_of\\_education\\_policy\\_ed\\_pls\\_edp/](http://designing_effective_monitoring_and_evaluation_of_education_systems_for_2030_a_global_synthesis_of_policies_and_practices_unesco_education_sector_division_for_policies_and_lifelong_learning_systems_ed_pls_section_of_education_policy_ed_pls_edp/)
- Hair, et al (2019). Revisiting Hair Et al.'s *Multivariate Data Analysis*: 40 Years Later. DOI: 10.1007/978-3-030-06031-2\_15.
- Holvoet, N. (2014). Taking stock of monitoring and evaluation systems in the health sector: findings from Rwanda and Uganda. 29(4):506-16. doi: 10.1093/heapol/czt038
- Kusek and Rist, (2004). Ten steps to a results-based monitoring and evaluation system: A handbook for Development Practitioners. Retrieved on June 25, 2022 at [https://books.google.com.ph/books?hl=en&lr=&id=AN1\\_UBu0k1cC&oi=fnd&pg=PR1&dq=Kusek+and+Rist+2004+monitoring+and+evaluation+research&ots=PIGqqqT-VQ&sig=2y9bklejYfcYg3g-EN6jMh1lyzg&redir\\_esc=y#v=onepage&q=Kusek%20and%20Rist%202004%20monitoring%20and%20evaluation%20research&f=false](https://books.google.com.ph/books?hl=en&lr=&id=AN1_UBu0k1cC&oi=fnd&pg=PR1&dq=Kusek+and+Rist+2004+monitoring+and+evaluation+research&ots=PIGqqqT-VQ&sig=2y9bklejYfcYg3g-EN6jMh1lyzg&redir_esc=y#v=onepage&q=Kusek%20and%20Rist%202004%20monitoring%20and%20evaluation%20research&f=false).
- Kyriakides, L. (2010). Using the Dynamic Model to develop an evidence-based and theory-driven approach to school improvement. Retrieved from [https://www.ucy.ac.cy/esf/documents/data/esf/Publications/using\\_the\\_dynamic\\_model.pdf](https://www.ucy.ac.cy/esf/documents/data/esf/Publications/using_the_dynamic_model.pdf) on July 26, 2021
- Khurniawan et al., 2021. The Collaborative Strategy of Total Quality management and School Governance to Improving Effectiveness of Vocational School-Based Enterprise. Retrieved from [https://3a2f2fwww.researchgate.net/publication/350175589\\_The\\_Strategy\\_Improving\\_School-Based\\_Enterprise\\_An\\_Analytic\\_Hierarchy\\_Process\\_Approach\\_In\\_Vocational\\_School\\_Palarch%27s](https://3a2f2fwww.researchgate.net/publication/350175589_The_Strategy_Improving_School-Based_Enterprise_An_Analytic_Hierarchy_Process_Approach_In_Vocational_School_Palarch%27s) on September 8, 2021
- LLantos, M. & Pamatpat, F. 2016. Total Quality Management and School-Based Management Practices of School Principals: Their Implications to School Leadership and Improvement. Retrieved from [https://www.researchgate.net/publication/327665248\\_Total\\_Quality...](https://www.researchgate.net/publication/327665248_Total_Quality...) on August 10, 2021
- OECD Chapter 8 Education system evaluation: Informing policies for system improvement
- OECD 2019. Evaluation and Assessment Frameworks for Improving School Outcomes. Retrieved from 46927511.pdf (oecd.org) on July 3, 2021
- Madzimure and Mashishi, (2020). Evaluating the Significance of Strategic Management on the Monitoring and Evaluation of Secondary Schools in Gauteng Province, South Africa. [https://scholar.google.com.ph/scholar?hl=en&as\\_sdt=0%2C5&as\\_vis=1&q=Madzimure+and+mashishi%2C+2020+monitoring+and+evaluation+research&btnG=](https://scholar.google.com.ph/scholar?hl=en&as_sdt=0%2C5&as_vis=1&q=Madzimure+and+mashishi%2C+2020+monitoring+and+evaluation+research&btnG=).
- Njama, A. (2015). Determinants of effectiveness of a monitoring and evaluation system for projects: A case of Amrep Kenya Wash Programme. Retrieved on June 21, 2022, from [http://erepository.uonbi.ac.ke/bitstream/handle/11295/92952/Njama,%20Amos%20W\\_Determinants%20of%20effectiveness%20of%20a%20monitoring%20and%20evaluation%20system%20for%20projects,%20%20a%20case%20of%20AMREF%20Kenya%20wash%20programme.pdf?sequence=3](http://erepository.uonbi.ac.ke/bitstream/handle/11295/92952/Njama,%20Amos%20W_Determinants%20of%20effectiveness%20of%20a%20monitoring%20and%20evaluation%20system%20for%20projects,%20%20a%20case%20of%20AMREF%20Kenya%20wash%20programme.pdf?sequence=3).
- Paragoso, S. & Barazon, L. 2019. School Monitoring, Evaluation, and Adjustment (SMEA) in Central Cebu, Philippines. Retrieved from School Monitoring, Evaluation, and Adjustment (SMEA) in Central Cebu, Philippines | Semantic Scholar
- Polit DF, Beck CT, Owen SV. Is the CVI an acceptable indicator of content validity? Appraisal and recommendations. *Research in Nursing & Health*. 2007;30(4):459-67. <https://doi.org/10.1002/nur.20199>
- Read, L. and Atinc, T. (2017). Investigations Into Using Data to Improve Learning: Philippines Case Study. Research Gate. Retrieved from (PDF) Investigations into Using Data to Improve Learning: Philippines Case Study (researchgate.net)
- UNESCO, (2018). Designing effective monitoring and evaluation of education systems for 2030: A global synthesis of policies and



practices UNESCO Education Sector Division for Policies and Lifelong Learning Systems (ED/PLS) Section of Education Policy (ED/PLS/EDP. Retrieved June 14, 2022, from [https://www.academia.edu/34653270/Designing\\_effective\\_monitoring\\_and\\_evaluation\\_of\\_education\\_systems\\_for\\_2030\\_A\\_global\\_synthesis\\_of\\_policies\\_and\\_practices\\_UNESCO\\_Education\\_Sector\\_Division\\_for\\_Policies\\_and\\_Lifelong\\_Learning\\_Systems\\_ED\\_PLS\\_Section\\_of\\_Education\\_Policy\\_ED\\_PLS\\_EDP](https://www.academia.edu/34653270/Designing_effective_monitoring_and_evaluation_of_education_systems_for_2030_A_global_synthesis_of_policies_and_practices_UNESCO_Education_Sector_Division_for_Policies_and_Lifelong_Learning_Systems_ED_PLS_Section_of_Education_Policy_ED_PLS_EDP).

UNESCO, (2015). Education for All Global Monitoring Report 2015. Retrieved on June 16, 2022, from <https://reliefweb.int/report/world/education-all-global-monitoring-report-2015-education-all-2000-2015-achievements>.

Yusoff, M. (2019). ABC of content validation and content validity index calculation. *Education in Medicine Journal*. 2019;11(2):49–54.

<https://doi.org/10.21315/eimj2019.11.2.6>.

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