

Operationalization of Summative Assessment in MAPEH in the New Normal: Its Challenges, Innovations and Interventions

Angeline A. Subang*

[For affiliations and correspondence, see the last page.](#)

Abstract

This mixed-method research was conducted to determine the levels of challenges, innovations and interventions in the operationalization of summative assessment in Music, Arts, Physical Education, and Health (MAPEH) of public MAPEH secondary school teachers in the Division of Iloilo for the school year 2021-2022. This study also determined whether significant relationship existed among challenges, innovations and interventions. The participants of this study were the 290 randomly selected public secondary school MAPEH teachers determined using the Slovin's formula. The data-gathering instruments were the researcher-made Challenges, Innovations and Interventions Questionnaires. Focus-Group Discussion was conducted to gather qualitative data for triangulation with the quantitative data gathered. Mean, frequency, percentage, rank and Standard Deviation were used for descriptive data analysis, while ANOVA and Pearson r were used for inferential data analysis at 0.05 level of significance. The findings of the study revealed that the level of top 10 challenges in the operationalization of summative assessment in MAPEH is "high". Also, the level of the top 10 innovations in the operationalization of summative assessment in MAPEH is "high". Generally, the level of top 10 interventions in the operationalization of summative assessment in MAPEH is "high" except for the top 4 interventions, "helped students with setting priorities in terms of answering summative assessment, written works and performance tasks", "provided rubrics and performance standards to assist the learner in doing the summative assessment both written works and performance tasks", "established clear, consistent rule which are direct and simple in the written works and performance tasks to allow learners perform the task with ease", and "encouraged self-expression in different assessment task's" which level is "very high". It was also revealed that the interventions among the levels of challenges encountered by the MAPEH teachers in the operationalization of summative assessment varies significantly and there were varied interventions employed to address the challenges. Also, the interventions among the levels of innovations developed by the MAPEH teachers in the operationalization of summative assessment significantly differed. Interventions vary since there are many available innovations. It was also revealed in the study that significantly positive relationships existed among the level of challenges, innovations as independent variables and interventions as dependent variable in the operationalization of the summative assessments.

Keywords: Summative Assessment, Interventions, Challenges, Innovations, MAPEH

Introduction

Assessment plays a significant role in determining the quality of education and how students learn, their motivation to learn, and how teachers teach. Assessment can be either be formative evaluation as an on-going process by modifying and adjusting throughout the course and summative evaluation occurs at the end of the course. This is most often used in academic institutions. Assessment is a key component of learning because it helps student learn and determines whether or not the goals of education are being met. Thus, it helps teachers and administrators in improving curriculum and curriculum planning (Sewagegn, 2019).

However, in the new normal education, holding of classes is difficult as well as doing assessment. Teachers do not feel adequately able and prepared to teach the subject remotely and unprepared to facilitate teaching, thus, they need support on technical,

pedagogical, and time management (Downing, & Dymment, 2013). Pandemic can be listed as a main factor in the failure to maintain motivation of students to learn. Furthermore, inability of parents to create a home learning environment for students, provide sufficient support, motivation, and lack of knowledge on how to spend time with their children. Learners not attending school are less physically active, watch screens longer, sleep irregularly, and do not perform actively in their learning activity. Thus, it is very important for teachers to hook up with parents and make them understand that there may be a great loss of knowledge for learners if they missed the opportunity to learn through their modules. Teachers as designers of learning and not just sources of information need to capture students' interest in spite of the current situations. Despite the effect of pandemic in the delivery of knowledge and development of skills at all levels of education, teachers ensured that quality learning is achieved even in the absence of face-to-face experiences despite of a great distance between the learners, teachers and continue to make learning

possible, doing everything they can to acclimate to the new normal (Lagua, 2020).

Operationalization is a process by which one can spell out precisely how a concept can be measured and applied to a variety of situations in order to make non-quantifiable concepts easier to analyze. The usual approach used in the operationalization of summative assessment in the New Normal is vastly changed with a lot of major changes like it is hard for the teachers to ensure that learners do not cheat during the summative examination. All of teachers are challenged with trying to implement effective teaching in this distance learning environment, and assessment is certainly part of that. The new normal allows to access information from people or through internet. This makes knowledge freely available and in turn move the focus more on authentic ways in solving the real problems found at home or even in the community. Thus, it is essential for learners to be intrinsically motivated though in reality it is very hard to achieve. Rewards system is also important that it can help with the current struggles in implementing the assessment system under the new normal. It is always beneficial to help people find their tasks intrinsically rewarding, extrinsic incentives can and will also play a role” (Cerasoli et al., 2014).

Summative assessment plays an important role in improving instruction by providing teachers with data on the effectiveness of curriculum and instruction. By conducting a variety of forms of summative assessment the teacher can have a good grasp of where their students are in the learning process and knowing what methods worked for a lesson or semester may not help current students, but it can provide teachers with the necessary insights into how and where to redesign instructional practices to elevate next year’s student scores (Moss, 2013).

The pandemic has brought changes in the educational system of the country. With the strong hope to deliver quality education to its clientele in these trying times, the Department of Education devises learning modalities to continue its mission and goals. To ensure teaching and learning continuity, it is concluded that education institutions have to be flexible in teaching and learning modality, recalibrate the curriculum, capacitate the faculty, upgrade the infrastructure, implement a strategic plan and assess all aspects of the plan. Educational system must be resilient in times of crisis in order to overcome challenges, and stronger, wiser, and more personally powerful (Pellegrino et al., 2012).

Considering the limitations, flexible learning focuses on giving students choice in the pace, place, and mode of students’ learning can be promoted through appropriate pedagogical practice. The learners are provided with the option on how to continue with his/her studies, where and when he or she can proceed, and in what ways the learners can comply with the requirements and show evidences of learning outcomes. It is not only the difficulties encountered on flexible learning that need to be addressed but also planning and doing the assessment needs which need to be given an utmost priority and consideration (Gordon, 2014).

Education is one of the vital areas that needs not to stop. It requires growth to produce more competent Filipinos that enriches economic status and service standards. On the other hand, education system is more affected due to the rise of this pandemic, most especially the MAPEH (Music, Arts, Physical Education, and Health) subjects. Though educators thought of ways on how to teach different subjects with their students, greater challenge is left with MAPEH teachers. Aside from the difficulty with the conduct of activities that involves physical contact like demonstrations of dance steps (tango, cha-cha), they have to assure that they are teaching the topics and lessons outlined by the Department of Education (DepEd). Nevertheless, no matter how challenging the situation is for everyone, educators will never let education fall off the battle pit.

The Department of Education in response to the challenges encountered in the implementation of varied learning modalities, how most essential learning competencies were achieved and how assessment should be measured, released DepEd Order No. 031, series of 2020 which is the Interim Guidelines on Assessment and Grading in light of the Basic Education Learning Continuity Plan. This guideline will allow schools to operationalize conduct of learning assessments in the form of formative and summative assessment.

In the operationalization of summative assessments in MAPEH, there are eventually challenges encountered that requires development of innovations and coming up with appropriate interventions in order to ensure learning outcomes. Music, Arts, Physical Education and Health (MAPEH) as a subject, encountered a lot of challenges on designing, planning, lack of funding in reproduction, non-innovative approach in the conduct of summative assessment, difficulty in designing online-based and technology aided and supported platforms, difficulty in designing integrative

assessments and in preparing pandemic responsive assessment tools which when not carried out could risk educational outcomes. The development of assessment practices should be supported with a more collaborative practices of assessment through sharing positive experiences of assessment in collaborative settings like in the Learning Action Cell (LAC Session) will result to higher awareness of the relationship between assessment conceptions, practices and in the improvement of learning (Siarova et al., 2017).

A well-designed instruction, has the alignment of the components of instruction guided by the process of constructive alignment. Constructive alignment is effective as guide in the planning phase or evaluation phase of instructional development, to make sure that the instructional components match with each other. The heart of constructive alignment lies in making the learning objective, teaching strategies, and assessment tasks that are coherent (Biggs et al., 2011).

Innovation in the operationalization of summative assessment means new ideas, creative thoughts and new imaginations in the form of new device or method which can be used interchangeably with science and technology and could be applied to MAPEH subject as well. When there is a new technology there is a new innovation. Teachers should tap technology or innovative enough to make their lesson more applicable to this modern type of learners. Integrating digital innovations in today's MAPEH textbook can encourage the use of internet-based resources that will better meet the needs and interest of the 21st century learners. Innovative assessment has also been considered as any form of assessment that attempts to enhance students' learning through different approaches and address learners' needs in a more efficient way (Vincent-Lancrin, Kärkkäinen, Pfothenhauer, Atkinson, Jacotin & Rimini, 2014). To innovate is to look beyond what we are currently doing and develop a novel idea that helps us do our job in a new way. The purpose of any invention, therefore, is to create something different from what we have been doing, be it in quality or quantity or both. To produce a considerable, transformative effect, the innovation must be put to work, which requires prompt diffusion and large-scale implementation. Innovation in education is generally understood as the successful introduction of a new thing or method intended to raise productivity, efficiency and improve learning quality (Brewer & Tierney, 2012).

Innovational interventions lead to the smooth flow of the operationalization of summative assessment in

which learners' progress were clearly indicated through a concrete assessment. Thus, interventions were employed. The use of innovative technology enabled students to interact with teachers and cope with their studies not only through modular printed materials but also through online and learning sessions. Teachers record their lectures and create video lessons so that students can listen at their own convenient time and interact through a live video conferencing platform. Despite of COVID-19, a lot of innovations have taken place in educational institutions and institutionalization of innovations have taken place (Regional Memorandum No. 175 s. 2021).

Intervention in the operationalization of summative assessment in MAPEH are clear and concrete actions to be taken by the MAPEH teachers in response to the challenges and problems encountered on the operationalization of the summative assessment. MAPEH teachers have primary roles and responsibilities for designing and using summative assessments in order to evaluate the impact of their own instruction, gauge the learning progress of their students and think of appropriate intervention activities. It is said that an accurate and valid descriptions of students' assessments are essential to quality teaching and in meaningful learning. Necessary support must be provided through training on the application, with evaluation of values and techniques to help and guide students attain greater academic growth. The interventions on instructions allow teachers to address gaps in learner's progress or attainment. Once a need has been identified, effective interventions can be then be used to overcome any barriers in the child's learning.

Thus, in the light of foregoing statements and above-mentioned reasons, the researcher was motivated to conduct the study in order to determine and help solve challenges, create innovations and provide interventions for the effective operationalization of summative assessment.

This study was anchored on the Attribution Theory of Fritz Heider (1988) that explains how and why people explain the things they do in this social world and try to find the cause and effects. The Attribution theory comes under the social Psychology, and explains the causes of Individual behaviors and events. In Internal attribution, a person always wants to show as much as positive and external attribution highlighted that a person wants to understand the world through events, and what happens around, a person seeks reason for that particular event.

Another theory which the study was anchored was the Kolb (1984) theory of experiential learning which discusses the key components of learning-by-doing, how it works and the characteristics which contribute to meaningful practice. As a widely-accepted theory, educators can use incorporate the model to support teaching practice and learner experience. The model is known for its holistic approach to student learning, which incorporates action/reflection and experience/abstraction in times of pandemic. (Kolb & Kolb, 2011).

This study is focused on the challenges, innovations and interventions in the operationalization of summative assessment in MAPEH. The theory supported the said topic in the context in which teachers identify the challenges in the operationalization of summative assessment in MAPEH which is considered to be the cause of difficulty in the operationalization of summative assessment and in order to respond to it, development of innovations and taking appropriate interventions come into play. This is what makes the theory sensible to the present study being undertaken. The emotional impulses drive the teachers to think innovations and interventions in order to make the curriculum relevant, learning instruction meaningful and learning experience worthwhile even in the middle of a pandemic.

Research Question

The main purpose of this study was to determine the level of challenges, innovations, and interventions in the operationalization of summative assessment in MAPEH in the new normal in the Province of Iloilo for the school year 2021- 2022. Specifically, it sought to answer the following questions:

1. Is there a significant difference in the interventions among the levels of challenges encountered by the MAPEH teachers in the operationalization of summative assessment?
2. Is there a significant difference in the interventions among the levels of innovations developed by the MAPEH teachers in the operationalization of summative assessment?
3. Are there significant relationships among the levels of challenges, innovations, and interventions in the operationalization of the summative assessments?

Literature Review

Operationalization of Summative Assessment in

MAPEH

Many institutions in the country and around the world was severely affected by the COVID-19 pandemic. The crisis became a dilemma not only to the health sectors but also to the education sectors. At the height of the pandemic, educational institutions came out with remote learning as an alternative solution. The immediate action and strategy aim to mitigate the closure while continuously delivering quality education. This led to a tighter measure for education institutions in sustaining its operations despite the impending risk as one of the basic problems seen by Kasrekar (2020).

As the face-to-face classes pose higher risk of spread, the most viable solution is through online, modular teaching and learning. This platform challenges both the teachers and the students as it occurs something new to them. This calls for an adopt quickly response to the new normal in teaching and learning amidst the pandemic (Tumapon, 2020).

Schools adopt assessment and grading practices that meaningfully support student development that respond to the varied contexts in the new normal. Prior to the pandemic, public school students were graded based on three summative assessment tools like written works, performance tasks and quarterly examinations in order to assess the content and performance standards that describe the knowledge, abilities and skills that learners are expected to demonstrate (DepEd ORDER No.031 s. 2020).

Assessment is defined as a systematic collection, review, and use of information about educational programmes undertaken for the purpose of improving student learning and development (Coverdale et al., 2013; Msango et al., 2014). Assessment can be summative evaluation which occurs at the end of the course and is most often the model used in academic institutions.

In education, the term assessment refers to the wide variety of methods or tools that educators use to evaluate, measure, and document the academic readiness, learning progress, skill acquisition, or educational needs of students. Through the use of assessments students' weaknesses and strengths are identified so that educators can provide specialized academic support. Assessment in education is highly dependent on the teachers' skills in dealing with it, thus developing a model of teacher assessment, view teachers' skill as the central part in making students' assessment Christoforidou, Kyriakides, Antoniou, and

Creemers (2014).

In the new normal and with the new set up, teachers designed creative flexible assessment to allow for flexibility in multiple modalities. Teachers communicate to learners and parents the design and standards for grading the assessment, and set up mechanisms to monitor and record progress remotely which the policy stated that teachers need to be creative and flexible in assessing student learning, while adhering to the principles of quality assessment practice. Thus, assessment is accompanied with timely, constructive and meaningful feedback to benefit student learning and an ongoing process of identifying, gathering, organizing and interpreting quantitative and qualitative information about what learners know and can do through via text message, email or digital learning management systems (DepEd Order No.8, s.2015).

Summative assessment is administered toward the end of the learning period to measure the extent to which the learners have mastered the essential learning competencies, the results of which are recorded and are used to report the learner's achievement. These tasks were designed to include the student's learning portfolio, which documents all the evidences of the learning within the grading period with a minimum of four written works and four performance tasks in the quarter. To evaluate student learning at particular points in each quarter, summative assessments shall continue in the form of written works and performance tasks. Written works were administered to assess essential knowledge and understandings through quizzes and long or unit tests. Items is distributed across the Cognitive Process Dimensions (DepEd,8 s. 2015) using a combination of selected-response and constructed-response formats so that all are adequately covered.). Performance tasks allow learners to show what they know and are able to do in diverse ways. They create innovate products or do performance-based tasks including skill demonstrations, group presentations, oral work, multimedia presentations, and research projects. It is important to note that written outputs may also be considered as performance tasks" designed to provide opportunities for learners, and to apply what they are learning to real-life situations (DepEd, 2015).

In addition, teachers take into consideration that task must be accompanied with clear directions and appropriate scoring tools like checklists, rubrics, rating and scale to help learners demonstrate their learning. Teachers collaboratively designed and implement performance tasks that integrate two or more

competencies within or across subject areas that complex tasks may be broken down into shorter tasks to be completed over longer periods of time. Learners given flexibility in the accomplishment of the performance tasks to consider time and resources available to them. Summative assessment tools used for the operationalization of summative assessment in MAPEH for Online Distance and Digital/ Printed Modular Learning were reflection and reaction paper for the written works and e-portfolio, online skills demonstration like drawing, video demonstration of personalized exercise programs, home physical activity, online skills demonstration like singing, playing instruments and personalized fitness and health program (DepEd,031 s 2020).

The operationalization of quarterly assessment in MAPEH in the new normal is through written works like open-book exam which learners must complete independently at home using any resources they have access to, and be returned with a specific period of time. Performance tasks were designed and provide multistep opportunities for learners to apply what they are learning at home. How learners are assessed in the new learning modality particularly in the distance learning and modular distance learning is through the use of the distance learning modalities and distance modular distance learning (DepEd ORDER No. 031 s 2020).

Based on the study conducted by Ambayon (2020), modular instruction is more operative in the teaching-learning method as equated to usual teaching approaches because in this modular approach the students learn in their own stride.

The Learning Continuity Plan Per DepEd Order Nos. 12 and 13 s. 2020, was instituted and formulated new learning delivery modalities at all levels, as represented in the Learning Continuity Plan (LCP) which contains major parts, the rationale and the operationalization home-based learning through modular, online or a combination of modular and online blended approach. The operationalization part of the LCP is a very comprehensive plan in response to the new normal in education and needs strategic planning and coordination with the stakeholders in order to come up with a comprehensive content as per DepEd guidelines. The operationalization part includes major contents which are school readiness, platform and support, content, assessments, teacher's preparation, learner's capability, parent's role, communication plan, continuance, and monitoring and evaluation. Operationalization as a process of turning abstract concepts into measurable observations,

involves how a concept can be measured, observed, or manipulated and interpreted. Using operationalization, researchers can systematically collect and evaluate phenomena that can't be observed directly, measurable, stand out and be understandable.

The tools used for the operationalization of summative assessment in MAPEH for Online Distance and Digital/ Printed Modular Learning were reflection and reaction paper for the written works and e-portfolio, online video demonstration of skills in dances, home physical activity and online skills demonstration like singing. In addition, teachers take consideration that the task must be accompanied with clear directions and appropriate scoring tools like checklists, rubrics, rating and scale to help learners demonstrate their learning. Teachers collaboratively designed and implement performance tasks that integrate two or more competencies within or across subject areas that complex tasks may be broken down into shorter tasks to be completed over longer periods of time. Learners given flexibility in the accomplishment of the performance tasks to consider time and resources available to them.

Challenges in the Operationalization of Summative Assessment in MAPEH

DepEd chief Leonor Magtolis Briones said that "Education must not stop" and is a continuous process. This is tangible or intangible challenges that can hinder the flow of education and comes from the different changes and challenges. One of this is the curriculum and how to manage this new curriculum specifically design for this pandemic crisis. DepEd Secretary also emphasized that the basic education learning continuity plan in the time of Covid-19 is the response of the department to the challenges posed by Covid-19 in the field of education. She pointed out that education must continue whatever the challenges and difficulties faced now and in the future. Teachers face different challenges due to these abrupt changes in the new educational system. Modular instruction, as an alternative modality or learning continuity, resulted in various challenges. Still, teachers must keep track of their students' development and monitor the progress of their students (Briones 2020).

According to Song & Gao (2019) discovered that employees were less happy and more stressed working from home. Their exhaustion levels peaked up due to the amount of telework as compared to working in the physical workplace. This is largely caused by the unlimited access of the internet which causes them to invest more time working remotely with flexible hours

than usual office hours. Besides that, employees struggle with the lack of social interaction among their co-workers since telecommuting has limited them from meeting people face-to-face in real life. The sudden transition from face- to-face to distance teaching also required a teaching staff with diverse levels of readiness to use different pedagogies with specific competencies (Marinoni et al., 2020).

Moreover, Dangle and Sumaoang (2020) asserted that the key challenges that occurred were the shortage of school finances in the creation and delivery of modules. Cardullo et al. (2021) added that teachers were caught off guard for emergency remote instruction owing to a lack of distant education expertise as well as computer literacy. Tosun et al. (2021) noted the lack of experience among teachers towards the current situation.

Modular distance learning modality challenges are due to the emergence of COVID-19 with a lot of changes happened in the educational landscape. The mode of instruction implemented by the Department of Education obliged most education systems to adopt alternatives to face-to-face teaching and learning which made modular distance learning more challenging, on the part of the school personnel, and to the delivery of basic quality education. Capacitating teachers in finding avenues to solve problems become more effective in the field of modular distance learning (Bagoood, 2020).

According to Tagupa (2018) teachers are frequently forced to spend their own wages on necessities that they should not be shouldering. Another issue for teachers was when modules were not posted on time and teachers rely on modules to be downloaded from the regional and national level.

In addition, Abdullah et. al. (2020), laid employees who work remotely are deprived of human interaction which leads them to feel detached from the close knitted bonds that they have built priorly with their colleagues. This leads to poor work performance and a barrier in communication.

Furthermore, Samillano (2014) found that more than one- fourth of the teacher-respondents are teaching performing arts but they are not MAPEH graduates. He also found that the majority of the MAPEH teachers experienced problems in the teaching because of a lack of facilities, equipment, and teaching materials. In his study, teachers perceived that MAPEH majors perform better in teaching than those who are non-MAPEH majors.

Likewise, the study of Buedron (2016) stressed that non- MAPEH majors were rated by both the students and department heads low in terms of knowledge and skills in teaching physical education.

Moreover, Bilasa (2016) recommended teacher facilitators need to be given technical assistance, virtual trainings and seminars in managing classes during pandemic, the utilization of instructional materials, and the use of appropriate teaching strategies in augmenting the performance of learners. The study also suggested that a study on teacher competency should be done on a regular basis to identify the enhancement needs of teachers. The aforesaid findings of the studies of Bilasa (2014) and Buedron (2016) revealed about problems encountered in teaching MAPEH, were mainly on lack of teaching resources and pedagogical content knowledge of teachers. This study also determined to find out the training needs of high school MAPEH teachers, as well as the problems they encountered in teaching the subject. The findings generated to serve as bases in recommending some inputs for policy directions and suggestions to enhance the implementation of the MAPEH curriculum for high school learners.

In addition, Tarek (2016) emphasized that the pandemic has recalibrated how teachers divide their time between teaching, engaging with students, and administrative tasks. The pandemic has highlighted the need for flexibility and more time for student-teacher interactions. Thus, teachers feel exhausted and not able to focus on their roles and responsibilities as teachers. And these multitasking activities have become the prevalent problems of educational implementers especially during this time of pandemic. Although a bit burden for the teachers, they need to be available online at all times in case of queries and must consider individual needs of the students in terms of their learning styles. They should be more creative, motivate their students to actively participate in the learning activities and engage students to a deeper learning so that the desired learning outcomes are met.

Problems on the curriculum development, enrichment and localization are not enriched among the expertise of teachers in the field; localization cannot be applied because modules already have the activities and enrichment exercises would mean expenditures for another reproduction of materials. These are considered birth pains since it is new to everyone and specifically made because of the pandemic.

In the study of Khlaif et al. (2021) stressed that assessing and engaging students are crucial issues in

these times with today's mode of instruction and create a challenge to validate students' output and performance. Challenges encountered in the COVID-19 pandemic put the educational system to the test where teachers encountered various challenges. The result revealed that teachers came across different challenges in teaching using the printed self-learning modules amid the COVID-19 pandemic. Due to variety of circumstances, teachers had difficulties in the transfer of quality learning. It was revealed that teachers were challenged in validating the performances of their students, and cannot monitor and evaluate the actual progress of the students.

According to Llego, (2021) further stress that teachers face different challenges due to these abrupt changes in the new educational system. Modular instruction, as an alternative modality for learning continuity, resulted in various challenges. Still, teachers must keep track of their students' development and monitor the progress of their students. When feasible, the teacher should visit students at home who need remediation or help.

In addition, Makoe,(2012)suggested that teachers should re-evaluate the modules, and must make sure that all the lessons or activities are appropriate to the needs of the learners. The great number of activities in each module is one of the main problems that emerged in the implementation of Modular Distance Learning. The instructions in every exercise must be clear enough for the learners to understand. The topics must be simplified, and teachers must give more examples. Moreover, all the printed pictures in the modules should be clear.

Using new technologies are among the challenges that requires a variety of skills that most educators are not familiar with, the educators need to be trained on how to use these new devices and how to integrate them into their own implementations. Thus, the utilization of mobile learning tools in distance education give positive impacts on learner's motivation, self-regulation, control and personalization of learning environment (Sönmez, Göçmez, Uygun & Ataizi, 2018).

Moreover, (Tuscano, 2020) described face classes pose higher risk of spread, the most viable solution is through online, modular teaching and learning. This platform challenges both the teachers and the students as it occurs something new to them. This calls for an adopt quickly response to the new normal in teaching and learning amidst the pandemic (Tumapon,2020).

In the new normal, learning on the part of the students

is a drastic change be it online class using a platform or offline classes through independent learning. Since students are used to face to face interaction with the teacher, it may be quite difficult for them to suddenly adjust to the new system. It requires proper orientation and familiarization of the new normal. The learners need to be encouraged to adapt the new learning modality and understand the lessons at their own pace with the assistance of their parents and guardian (DepEd ORDER No. 031 s 2020).

In the new set up, teachers designed creative flexible assessment to allow for flexibility in multiple modalities, communicate to learners and parents the design and standards for grading the assessment, and set up mechanisms to monitor and record progress remotely which the policy stated that “Teachers were creative and flexible in assessing student learning, while adhering to the principles of quality assessment practice.” Thus, assessment is accompanied with timely, constructive and meaningful feedback to benefit student learning and an ongoing process of identifying, gathering, organizing and interpreting quantitative and qualitative information about what learners know and can do through via text message, email or digital learning management systems (DepEd Order No.8, s.2015, p.1).

With the increasing demand on high standards and quality of teaching in education, it has become crucial to assess the learning outcomes of any procedure, improve academic performance while facilitating learning and predicting academic success. In order to achieve all these goals, the right assessment tools are implemented in the learning and for the learning process like summative assessment. It is administered toward the end of the learning period to measure the extent to which the learners have mastered the essential learning competencies, the results of which are recorded and are used to report the learner’s achievement. These tasks were designed to include the student’s learning portfolio, which documents all the evidences of the learning within the grading period with a minimum of four written works and four performance tasks in the quarter (DepEd ORDER No. 8 s 2015).

To evaluate student learning at particular points in each quarter, summative assessments continue in the form of written works and performance tasks. Written works were administered to assess essential knowledge and understandings through quizzes and long/unit tests. Items is distributed across the Cognitive Process Dimensions (DepEd, No. 2 s 2015 p.4) using a combination of selected-response and constructed-

response formats so that all are adequately covered.). Performance tasks was designed to provide opportunities for learners, apply what they learned and apply in real-life situations, in diverse ways. They create innovate products or do performance-based tasks including skill demonstrations, group presentations, oral work, multimedia presentations, and research projects. It is important to note that written outputs may also be considered as performance tasks” (DepEd, 2015, pp. 7–8).

According to the study of Fauzi et al. (2020), it was found that teachers face challenges and problems in the Covid-19 pandemic such as lack of opportunities, network and internet use, planning, implementation and evaluation of learning, and collaboration with parents. Thus, using new technologies requires a variety of skills that most educators are not familiar with, the educators need to be trained on how to use these new devices and how to integrate them into their own implementations. The utilization of mobile learning tools in distance education give positive impacts on learner’s motivation, self-regulation, control and personalization of learning environment (Sönmez, Göçmez, Uygun & Ataizi, 2018).

In addition, Hodges et al. (2020) further stated that due to the present health issue, many educators have been forced to invent short online learning solutions. Evidently, teachers find ways in all circumstances, subjecting themselves beyond what is required and expected of them.

Distance education offers individuals educational environments independent from time and space with the support of advancing web-based platforms and technologies (Bilgiç & Tüzün, 2015). In addition, students should be prepared and motivated for distance education lessons that are greatly widespread and designed in different models (Bertiz & Kocamankaroğlu, 2020). Power interruption and internet connection are aired challenges that finish teachers’ tasks and cause harm to electronic devices. In the worst-case situation, teachers were also hampered by poor and inconsistent internet connections, as teachers depend on strong internet connections to interact with their learners. As a result, teachers traveled to locations with a reliable internet connection, encouraged to implement innovative programs to support not only learning continuity but also the delivery of quality education with the support of school administrators.

Moreover, Anzaldo (2021) advised also that modules should be produced soonest to assist teachers in

completing their weekly home learning plans. When uploads are delayed, teachers must construct their own instructional activities for their learners thus, increasing the teacher's workload. Teachers showed displeasure when students failed to claim modules on time, though it was prepared on time. Despite the difficulties of purchasing their own printer and designing their own modules in order to continue assisting students, they may be confronted with the truth that there are still students who were late in claiming modules. It is an additional hardship and adds extra work to the teachers because they may have to wait for late outputs, which means they may not be able to compute their grades on time.

Furthermore, (Sönmez, Göçmez, Uygun & Ataizi, 2018) stressed that the great number of activities in each module is one of the main problems that emerged in the implementation of Modular Distance Learning. The instructions in every exercise must be clear enough for the learners to understand. The topics must be simplified, and teachers must give more examples. Moreover, all the printed pictures in the modules should be clear. (Makoe, 2012) stressed that teachers should re-evaluate the modules, and they must make sure that all the lessons or activities are appropriate to the needs of the learners. Thus, using new technologies requires a variety of skills that most educators are not familiar with, the educators need to be trained on how to use these new devices and how to integrate them into their own implementations. The utilization of mobile learning tools in distance education give positive impacts on learner's motivation, self-regulation, control and personalization of learning environment (Sönmez, Göçmez, Uygun & Ataizi, 2018).

According to Dangle and Sumaoang (2020) reported that one of the primary challenges that occurred in the implementation of modular distance learning was many activities in each module. Thus, this could be one of the reasons why retrieval of modules was not being completed on time, which may also contribute to the student's poor performance. Students' difficulty in following instruction is among the challenges encountered by the teachers. The teachers were challenge with the student's difficulty in understanding modules instruction. This was evident too in the study of Alvarez (2021) where students were confused of the instructions indicated in the modules and resulted to the poor reading comprehension ability of the students. Regardless of what instruction the teacher may use, reading comprehension difficulty was a hindrance to student's development (Abbas, 2021).

In addition, Pentang (2021), stated that teachers regardless of any circumstances, must use available and applicable pedagogy to effectively deliver their lessons. Despite the challenges posed by the COVID-19 pandemic, teachers continue to serve by developing modules that act as students' learning guides (Lapada et al., 2020). However, Malipot (2020) stressed that teachers also air their problems on modular distance learning such as reproduction costs and being forced to attend school as late as 11:00 p.m. to complete the printing on time.

According to Macaraeg et al. (2021 further elaborated that the country's Teachers Dignity Coalition claimed that modular distance learning has created extra workload, health risks, and additional expenses which causes teachers to beg for donations of bond paper and ink to print. These only evidently show that challenges really do exist in the use of printed self-learning modules. Despite challenges that may impede their work, teachers manage to cope with the new normal and complete their tasks (De Villa & Manalo, 2020).

Furthermore, Anzaldo (2021) claimed that not all learners do their modules committedly and without the presence of teachers and classmates who remind them of their work, students are more likely to become sidetracked and lose sight of deadlines. Particularly, given the lack of face-to-face lectures and the fact that they were only using modules on their own. Akin to Pentang et al. (2020), stated that learners who independently worked on their modules do not fully guarantee quality learning. Parents are the one answering the modules. Parents' writing was recognized by the teachers. As it can be noted on the participants narrative, it is evident that the outputs submitted were not from the students but the output of the parent/guardian".

According to Olivo (2021) parents perceived that modular distance learning was generally implemented well except for the learning activities which they claimed were too many to complete in a given time period. Likewise in the distribution and retrieval of modules, the teachers expressed their struggles with module distribution and retrieval as a result of the elements that contribute to this load. The findings resulted that the teachers were challenged because of the lack of resources, do not have ample resources, printers, and bond papers. In these difficult times, printers play an important role in enabling instructors to print modules. However, the teachers do not have access to printers. As a result, several teachers utilized their own money to purchase one for their classes,

spent from our own pocket.

Teachers were challenged with the health risk in distributing and retrieving modules. Despite the risk that threatens their lives, teachers continued to serve and teach students to provide quality education for the learners (Pizaña et al. 2021).

In the study of Malipot & Bagood (2020) highlighted that teachers air their problems on modular distance learning that as front liners in the educational system, undergone various training and seminars to be more equipped in delivering better education amid the COVID-19 pandemic as it is a norm of the department to train teachers not just for professional growth but to become ready for unexpected circumstances.

According to Nitko & Brookhart, (2014) confirmed that challenges posed by the COVID-19 resulted to several crisis, and assessment practices in education differ across contexts. They reach a common point that grades should reflect what learning is assessed and how commensurate is the grade with the student performance. Adjustments to the point of leniency error in the completion of course works are echoed in the fear that it may reduce grade reliability. Theoretically, leniency error is a condition in which the teacher is too indulgent, and all students achieve high passing scores which is considered as one of the threats to grade.

Current practices considering leniency in the compliance of course requirements have a disadvantage in the light of leniency error. This dialog on assessment has extended deadlines for paper works, abandon consequences for deferred submissions, and reduced chunks of requirements Flaherty, (2020).

Moreover, Jayani (2021) found that there are students who submitted their learning modules late because they cannot finish on time the bulk of modules given to them. Hence, Reimers and Schleicher (2020) stressed that need to revisit and re-prioritize the curriculum goals and to strike out the competencies which are not responsive to the current needs of the learners and those that would bring a disruptive impact to the distance learning modality being utilized. This was necessary to ensure that learners would be able to answer their learning modules on time and be able to submit it on time. Aside from that, other competencies that were found to be inappropriate in this time would just cause learner's difficulty in answering the modules and returning it without any answers.

Moreover, Mateo, (2020) described though this endangered grade reliability, validity or integrity, the

advantage of such new practice is seen by some scholars as a point of human consideration, accounting for the lost opportunities of learning for students to fairly work for the grade that they deserve.

Modular distance learning modality challenges are due to the emergence of COVID-19 with a lot of changes happened in the educational landscape. The mode of instruction implemented by the Department of Education obliged most education systems to adopt alternatives to face-to-face teaching and learning which made modular distance learning more challenging, on the part of the school personnel, and to the delivery of basic quality education. Capacitating teachers in finding avenues to solve problems become more effective in the field of modular distance learning (Bagood, 2020).

The study of Yarovaya et al. (2020) revealed that with distance learning modality, teachers need to dedicate most of their time in crafting instructional materials and learning experiences that the students need to work independently. They mentioned that remote instruction is time-consuming when it comes to lesson preparation especially when one need to ensure better participation among the learners. Aside from preparation, teachers also need to double check the works of the learners whether they are the one answering their work or are they cheating or used other facilities to answer their lessons – things that adds to teacher's burden with distance learning modality.

According to Kuruvilla (2020), the role of parents in the virtual learning is important. Since students are home-schooled, they have to monitor the development and performance of their child on their day-to-day activities during the independent learning hours. Without the help of the parents, teachers may not be able to meet the desired learning outcomes at the end of the day. Parents should cast their children's fears and stress, that increases the anxiety level of the situation due to the challenging times (Rich 2020). Their role intensifies as their children are home-schooled and should be keen on the problematic reactions of their children. Their support is critical to the learning development of their children in the absence of the teachers.

Methodology

Research Design

This study was conducted to determine the challenges,

innovations and interventions in the operationalization of summative assessment in MAPEH in the new normal among secondary school MAPEH teachers in the school's division of Iloilo for the school year 2021 – 2022. This study utilized the mixed method. For the quantitative research, survey -correlational research design was employed and for the qualitative research, the focus group discussion (FGD) was utilized.

Participants

The participants of this study were the 290 randomly selected secondary MAPEH teachers in the Division of Iloilo for school year 2021 -2022. The participant's sample size was determined with the use of Slovin's formula.

The profile of the participants was shown in table 1. MAPEH teachers when categorized into educational attainment, 226 of whom are bachelor's degree holders or 78%, 61 are with master's degree or 21% and 3 are with doctoral degree or 1%. As to teaching experience, 185 teachers or 63.8% have short teaching experience (1-10 years) and 105 teachers or 36.2% have long teaching experience with 11 years and above in service. As to school type, teachers from small schools were 46 or 15.9%, from medium school were 95 or 32.7%, from large school were 118 or 40.7% and from very large school were 31 or 10.7%. As to congressional districts, 44 teachers came from first district or 15.3%, 61 or 21.0% came from second district, 81 from third district or 27.9%, 43 from fourth district or 14.8% and 61 teachers from the fifth district or 21.0%.

Instruments

This research utilized a 120-item researcher-made questionnaire divided into four parts namely profile of the participants, challenges of operationalization of summative assessment questionnaire, innovations of operationalization of summative assessment questionnaire and interventions of operationalization of summative assessment questionnaire.

Profile of the Participants. The instrument was used to gather the data on the profile of participants such as educational attainment, teaching experience, school type and congressional district.

Challenges in the Operationalization of Summative Assessment in MAPEH Questionnaire. The 40-item questionnaire for the challenges was based on the DepEd Order No. 031, series of 2020, which is the Interim Guidelines on Assessment and Grading in Light of the Basic Education Learning Continuity Plan. The items for the challenges focused on the aspects of development, quality assurance, implementation and feedback.

Prior to its use, the instrument was subjected to the following tests: test of validity, to ascertain whether the instrument can really gather the data necessary to answer the specific problems in this study; and test of reliability, to determine the stability of the instrument in soliciting responses for the test items when repeatedly administered to various respondents under various physical conditions. The validity of the instrument was tested using face validation and content validation. For face validation, the instrument was submitted online to the five experts, master's degree or doctorate degree who were experts in their own field and who were part of the study and are qualified to give their ratings, using the scale developed by Good and Scales.

For the test of reliability, printed copies of the data gathering instrument were administered among 30 MAPEH teachers who were not included in the study. The responses of these individuals were subjected to a reliability test using Cronbach's Alpha. Cronbach Alpha which is used to measure how well a set of items (or variables) measures a single dimensional latent construct. Cronbach's Alpha in Bancal (2021) is also written as a function of the number of test items and the average inter-correlation among the items.

Result of the Cronbach alpha showed a correlation coefficient of .982 for challenges in the operationalization of summative assessment respectively which according to Bhandari (2022), an instrument with a correlation coefficient index of .70

Table 1. *Profile of the participants*

Categories	f	%
<i>Educational Attainment</i>		
Bachelor's Degree	226	78.0%
Master's Degree	61	21.0%
Doctorate Degree	3	1.0%
<i>Teaching Experience</i>		
Short (1 - 10 years)	185	63.8%
Long (11 years & above)	105	36.2%
<i>School Type (Scale)</i>		
Small	46	15.9%
Medium	95	32.7%
Large	118	40.7%
Very Large	31	10.7%
<i>Congressional District</i>		
First District	44	15.3%
Second District	61	21.0%
Third District	81	27.9%
Fourth District	43	14.8%
Fifth District	61	21.0%
Total	290	

and above is considered reliable.

Innovations in the Operationalization of Summative Assessment in MAPEH Questionnaire. The 40-item questionnaire for the innovations was based on the DepEd Order No. 031, series of 2020, which is the Interim Guidelines on Assessment and Grading in Light of the Basic Education Learning Continuity Plan. The items on innovation focuses on different innovative forms of assessment such as video-based assessment, online/virtual, mobile assessment, integrative/thematic, technology-based and assessment that involves the community.

Prior to its use, the instrument was subjected to the following tests: test of validity, to ascertain whether the instrument can really gather the data necessary to answer the specific problems in this study; and test of reliability, to determine the stability of the instrument in soliciting responses for the test items when repeatedly administered to various respondents under various physical conditions. The validity of the instrument was tested using face validation and content validation. For face validation, the instrument was submitted online to the five experts, master's degree or doctorate degree who are experts in their own field and who were part of the study and are qualified to give their ratings, using the scale developed by Good and Scales.

For the test of reliability, printed copies of the data gathering instrument were administered among 30 MAPEH teachers who were not included in the study. The responses of these individuals were subjected to a reliability test using Cronbach's Alpha. Cronbach Alpha which is used to measure how well a set of items (or variables) measures a single dimensional latent construct. Cronbach's Alpha in Bancal (2021) is also written as a function of the number of test items and the average inter-correlation among the items.

Result of the Cronbach alpha showed a correlation coefficient of .974 for innovations in the operationalization of summative assessment respectively which according to Bhandari, P. (2022), an instrument with a correlation coefficient index of .70 and above is considered reliable.

Interventions in the Operationalization of Summative Assessment in MAPEH Questionnaire. The 40-item questionnaire for the intervention was based on the DepEd Order No. 031, series of 2020, which is the Interim Guidelines on Assessment and Grading in Light of the Basic Education Learning Continuity Plan. The intervention items focused on aspects such

as home visitation, one-on-one assessment, contextualized items, differentiated assessment strategies and monitoring of learner's progress.

Prior to its use, the instrument was subjected to the following tests: test of validity, to ascertain whether the instrument can really gather the data necessary to answer the specific problems in this study; and test of reliability, to determine the stability of the instrument in soliciting responses for the test items when repeatedly administered to various respondents under various physical conditions. The validity of the instrument was tested using face validation and content validation. For face validation, the instrument was submitted online to the five experts, master's degree or doctorate degree who are experts in their own field and who were part of the study and are qualified to give their ratings, using the scale developed by Good and Scales.

For the test of reliability, printed copies of the data gathering instrument were administered among 30 MAPEH teachers who were not included in the study. The responses of these individuals were subjected to a reliability test using Cronbach's Alpha. Cronbach Alpha which is used to measure how well a set of items (or variables) measures a single dimensional latent construct. Cronbach's Alpha in Bancal (2021) is also written as a function of the number of test items and the average inter-correlation among the items.

Result of the Cronbach alpha showed a correlation coefficient of .979 for interventions in the operationalization of summative assessment respectively which according to Bhandari (2022), instrument with a correlation coefficient index of .70 and above is considered reliable.

Data Gathering Procedures

The researcher sought approval from the Dean of the Graduate School and the adviser to conduct the study, to the Department of Education, Division of Iloilo and Division of Iloilo City and School Principals. A letter was sent to the MAPEH teachers upon the approval of the Principal to conduct the data gathering instruments to the participants. The instrument was administered by the researcher to the target participants upon receiving the principal's approval or support through online platform. The same procedure was used in selecting two (2) Focus Group Discussion (FGD) Participants in each district from the first to fifth district in the Province of Iloilo.

The questionnaires were made through google forms and was then distributed to the secondary schools in

the school's division of Iloilo through a google form link channeled and coordinated accordingly through the school's division of Iloilo's ICT personnel.

For the qualitative part, the Focus-Group Discussion was conducted last April 19, 2022 at District 21 Hotel, Mandurraio, Iloilo City with eight (8) participants from first to fifth district in the Province of Iloilo, through face-to-face interaction following the minimum safety and health standard protocols.

After the administration of the instrument, the data gathered were tallied, tabulated, computer-processed, analyzed, and interpreted using the Statistical Package for the Social Sciences (SPSS) software. The results obtain from the Focus-Group Discussion were used to triangulate the results obtained in the quantitative data. The researcher assured the participants that the data gathered were treated highly confidential

Results and Discussion

ANOVA of Interventions Made Among the Levels of Challenges Encountered by MAPEH Teachers in the Operationalization of Summative Assessment

Table 2. ANOVA of Interventions Made Among the Levels of Challenges Encountered by MAPEH Teachers in the Operationalization of Summative Assessment

Source of Variation	SS	df	MS	F	Sig.
Between Groups	49.76	4	12.44	34.33*	0.000
Within Groups	103.28	285	0.36		
Total	153.04	289			

* p<0.05 significant @5% alpha level
ns p>0.05 not significant @5% alpha level

This means that teachers employ different interventions according to the degree of challenges they met. This holds true to how the teachers handle the challenges they face in the operationalization of summative assessment. Once the challenge or problem was identified, necessary intervention may be employed. This enable the challenges encountered to be addressed immediately and be given solutions; thus, preventing another problem to take place.

The result of the study has an implication to the prioritization of teachers when they employ interventions based on the urgency, relevance and its impact to the problems and challenges at hand. Teachers need to clearly understand, assess, map out or plot how these interventions feasibly be employed

in the context of the pressing issue relevant to the demands of the pandemic. The result was confirmed by the result of FGD that teachers cannot just ignore the challenges instead they find means to address them.

The informants have the same contention that in order to address the challenges, interventions must be employed. Teacher 4 emphasized that, *"In order to achieve effective learning outcomes, we have to provide interventions immediately to assist learning process."* Teachers 5 and 7 share the same insights when they revealed that, *"Interventions are effective when challenges or problems are solved."*

Challenges are identified or encountered because we are truly doing our jobs and that's normal." We cannot just proceed with the implementation if challenges are ignored." Teachers 1 and 8 also validates this when they said, "We need to innovate and intervene right away since we are mandated and it is expected of us to respond." and "To fully operationalize the summative assessment, challenges need to be addressed and appropriate interventions must be employed."

This is supported by the study of Fauzi et al. (2020) that teachers face problems in the Covid-19 pandemic such as lack of opportunities, network and internet use, planning, implementation and evaluation of learning, and collaboration with parents.

Makoe (2012) support the result of the study when he claimed that appropriate interventions must be employed and technology in time of pandemic is a great aid as teaching by using new technologies requires a variety of skills that most educators are not familiar with, the educators need to be trained on how to use these new devices and how to integrate them into their own implementations.

Also, Sönmez, Göçmez, Uygun and Ataizi (2018) corroborates with the result of the study highlighting that the utilization of mobile learning tools in distance education has positive impacts on learner's motivation, self-regulation, control and personalization of learning environment.

Distance education offers individuals educational environments independent from time and space with the support of advancing web-based platforms and technologies (Bilgiç & Tüzün, 2015). In addition, students should be prepared and motivated for distance education lessons that are greatly widespread and designed in different models (Bertiz &

Kocamankaroğlu, 2020). The null hypothesis which states that there is no significant difference in the interventions among the levels of challenges encountered by the MAPEH teachers in the operationalization of summative assessment is rejected.

ANOVA of Interventions Made Among the Levels of Innovations Developed by MAPEH Teachers in the Operationalization of Summative Assessment

ANOVA result on the difference in the interventions made among the levels of innovations developed by MAPEH Teachers in the Operationalization of Summative Assessment is shown in table 3. The result showed that there is a significant difference in the interventions made among the different levels of innovations encountered by MAPEH teachers in the operationalization of summative assessment ($F=121.60$, $p<.05$).

Table 3. ANOVA of Interventions Made Among the Levels of Innovations Developed by MAPEH Teachers in the Operationalization of Summative Assessment

Source of Variation	SS	df	MS	F	Sig.
Between Groups	85.78	3	28.59	121.60*	0.000
Within Groups	67.26	286	0.24		
Total	153.04	289			

* $p<0.05$ significant @5% alpha level

ns $p>0.05$ not significant @5% alpha level

This means that the level of interventions and the kind of interventions made by teachers are based on the level or degree of innovations teachers developed and employ. This can be further described as the more innovations proposed and employed, the higher the interventions may be made and employed and vice versa.

Hence, teachers need to be exposed to a wide array of innovations and be oriented with how these innovations be developed and implemented which may serve as intervention activities, tools and mechanisms to fully operationalize the summative assessment in MAPEH. Intervention and innovations in this study are congruent. Interventions were made because innovations are available and these are necessary to solve challenges faced by the teachers in the operationalization of summative assessment in MAPEH. The result was validated by the result of the FGD as highlighted by the informants that innovations are very much needed in order to provide timely and appropriate interventions to make summative

assessment in MAPEH truly authentic, functional and feasible.

Teachers 1, 2, 3 and 4 have the same contention that innovations are developed because it improves learning practices. Teacher 4 highlighted and said, “we create something new, that’s innovation that may make our summative assessment authentic.” Also, teacher 2 emphasized, “developed innovations when available is needed to employ interventions.

This may help teachers employ appropriate interventions and fully operationalize the summative assessment in MAPEH.” And teacher 1 and 3 share the same thoughts and they said, “Innovations must be employed along with the interventions made so that challenges must be addressed timely and assessment in MAPEH may no longer be challenging since these two really help. Since there are challenges in the operationalization of summative assessment in MAPEH because it is pandemic, innovations are just timely to assist in the implementation. When pandemic is over, these innovations must be in full implementation and must be sustained to help us make assessment authentic and doable.

This is supported by the claim of Adam et.al. (2021) that positive relationship between performance and innovation was found. Davidescu et.al. (2020) substantiates the result of this study in which the performance of organizations is also dependent upon the level of creativity or innovation involved in the organizational process. The organizations that use creativity at the internal, as well as external level, can improve the performance of their firm on both short-term and long-term basis. Such organizations can easily survive in difficult conditions like COVID-19. The null hypothesis which states that there is no significant difference in the interventions among the levels of innovations developed by the MAPEH teachers in the operationalization of summative assessment is rejected.

Pearson r Among Challenges Encountered, Innovations Developed and Interventions Made by MAPEH Teachers in the Operationalization of Summative Assessment

Table 4. *Pearson r Among Challenges Encountered, Innovations Developed and Interventions Made by MAPEH Teachers in the Operationalization of Summative Assessment*

Variables	r	r ²	Sig
Challenges Encountered and Innovations Developed	.580*	33.64%	0.000
Challenges Encountered and Interventions Made	.500*	25.00%	0.000
Innovations Developed and Interventions Made	.776*	60.22%	0.000

* p<0.05 significant @5% alpha level

ns p>0.05 not significant @5% alpha level

This means that the challenges, innovations and interventions are interacting, interrelated and interconnected elements or components as teacher operationalize the summative assessment. The level of challenges intensifies the teacher's innovativeness in terms of communication, simplification and flexibility which are used as interventions in assessment plans, programs and strategies to address the challenges and issues captured such as ensuring quality, authenticity and usability of assessments in MAPEH. The positive result also implies that as the challenges encountered increases the innovations developed also increases and vice versa.

This can be implied that the challenges encountered during assessment must be systematically gathered, organized and discussed during LAC sessions so that possible interventions be agreed by the teachers upon critical presentations and proposals of solutions through sharing of innovations. The positive result also implies that as the challenges encountered increases the interventions also increases and vice versa.

In addition, to promote the culture of innovativeness, teachers need to be exposed to quality innovations from among the winning innovators for learning in the region. They should be encouraged by the school heads and education leaders to propose innovations and be given the needed technical assistance and support so that the innovations may be improved and sustained. The positive result also implies that as the innovation made increases the interventions also increases and vice versa.

Lastly, there should be proper documentations of the interventions and how it impacts teaching – learning delivery, assessment and learning outcomes.

The result of the FGD strengthened the result of this research inquiry where the informants explicitly underscore how these three: challenges, innovations and interventions affect, influence and impact one another.

Almost all of the informants agreed that challenges, innovations, interventions affect one another however teacher 8 highlighted and said, *“Of course, when we*

are implementing something like this assessment in light of the pandemic, it is for sure very challenging because we need to adjust to it and proposed innovations are appropriate to address these challenges. When we do not work what is expected of us, then there are no challenges and problems, also no interventions must be made.” This was also supported by teacher 5 and said, *“These three really work together to make any practice in school meaningful. As to assessment, challenges are addressed and problems are solved with right interventions. Innovations are more creative way to address it.”*

The desire to propose many innovations was also highlighted by teachers and emphasized the relationship to interventions made to address challenges met.

Teacher 4 said, *“In any school practice, aside from assessment, when there are many challenges, there are many innovations will be developed, then more innovations, so more interventions are made.”* Teacher 1 also meaningfully supports this and said, *“Teachers when they meet challenges in the operationalization of summative assessment in MAPEH are prompted to develop innovations because there is a need to respond to these challenges.”* Teacher 2 and 3 share the same idea and said, *“Everyone has been talking about innovations since it was institutionalized, thus we are encouraged and motivated to innovate since innovations were shared.”* Lastly, teacher 6 validated that, *“teachers find not difficult to intervene since there are readily made available innovations in the school, division and region.”* All the challenges may be addressed with all of these innovations and interventions.

This result proved true to the study of Bhandari (2022), a correlational research design investigates relationships between variables without the researcher controlling or manipulating them. A correlation reflects the relationship's strength and/or direction between two (or more) variables. The focus of a correlation can be either positive or negative.

A Pearson correlation coefficient was computed to assess the linear relationship between challenges encountered and innovations developed, challenges encountered and interventions made, and innovations developed and interventions made. The results revealed that there is a positive relationship exists between challenges encountered and innovations

developed, $r = .580$, $p < .001$. This further means that 33.64% of the variance in the challenges can be explained by innovations or vice versa. Further, the results also indicate that there is a positive correlation exists between challenges encountered and interventions made, $r = .500$, $p < .001$. More over this means that 25% of the variance in the challenges could be explained by the interventions or vice versa.

Finally, a relationship existed between the innovations developed and interventions made, $r = .776$, $p < .001$. This indicates that 60.22% of the variance in innovations could be explained by interventions or vice versa. The null hypothesis which states that there are no significant relationships among the levels of challenges, innovations, and interventions in the operationalization of the summative assessments is rejected.

Conclusion

On the bases of the preceding findings, the following conclusions were drawn: (1) The high level of challenges in the operationalization of summative assessment may result to poor application of the assessment schemes such as poor level of preparedness for tests on the part of students, poor test administration procedures, poor handling of scores and feedback to students and poor coverage of instructional contents which MAPEH teachers find it difficult to appropriately assess the students. (2) The high level of innovations developed among the MAPEH teachers in the operationalization of summative assessment may redound for MAPEH teachers to discover better strategies, improve range of teaching techniques that are designed to increase engagement, develop creativity, encourage collaboration, and utilize real-world challenges to deepen understanding of students. (3) The high and very high level of interventions developed by the MAPEH teachers in the operationalization of summative assessment shows a manifestation that the best practices are not always effective in new or different situations and need to be improved by employing appropriate planning, designing, application and implementation of effective strategies in order to address the specific identified challenges in conducting of summative assessment. (4) The implemented interventions vary significantly and assured that the key aspects of promising approaches are not put into practice as intended to meet the learners' needs. (5) Based on the innovations developed, interventions vary and innovations developed compliments with the interventions made.

Interventions were made along with the readily available innovations of teachers that address the challenges in assessment especially challenges that has evidently existed during the pandemic. (6) Positive significant relationship exists among the three elements, challenges, innovations and interventions. The interventions employed by the teachers in the operationalization of summative assessment found to be significantly related to innovations develop and challenges met by MAPEH teachers.

Based on the findings and conclusions, the following recommendations were formulated: (1) MAPEH teachers are encouraged to always ensure the alignment of innovations in the challenges met and problems encountered, then teachers in schools may establish a culture of sharing of innovations. It is also recommended that technical assistance plan across different governance level may be properly cascaded to the teachers to ensure the effectiveness of the implementation of the summative assessment. It is with careful planning coupled with assistance that success in the implementation and operationalization of an educational practice is achieved. Then, teachers may develop a communication system that provided clear and concrete message of clarity and understanding between the teacher and the learners in terms of assessment. (2) The Department of Education through the Regional and Division Offices may frame established policies and guidelines regarding the critical documentation of the challenges met by the teachers in the field. The department may be data driven and these data may be critically captured. The gathering of these data may be research-based. Also, the Department is recommended to encourage the Schools Division Offices to have a contingency plan in times of crisis like this pandemic. They are encouraged to initiate coordination meetings with the schools to ascertain the challenges. Strategic monitoring of the challenges whether they are addressed or not addressed may be implemented. (3) School administrators in each school may need to have the registry of challenges in assessment and may be part of the LAC sessions of the teachers highlighting quality, authenticity and flexibility. From these challenges, proposed innovations and interventions are planned and worked. Teachers may present challenges in the LAC sessions. They may be able to brainstorm and propose solutions for effective implementation of the summative assessment. Also, school heads or administrators are encouraged to strengthen the sustainability of institutionalization of educational innovation. The need to always create something new to provide meaningful learning experiences and better the learning outcomes may always be the goal of every

innovation. School administrators may emphasize that the utilization of the innovations must be part of the intervention plan of the schools to fully operationalize summative assessment in MAPEH. Then, evaluation of the effectiveness of these interventions and innovations vis a vis the challenges encountered may be institutionalized which can be done through research and program implementation review.

(4) Students may be helped to be adaptive to the new trends in assessments employed by the teacher and the school especially during the time of crisis like the COVID-19 pandemic that has greatly affected the educational practices. They are also recommended to have clear communication with teachers in terms of the implementation of assessment. Students need to work together with teachers in the assessment of their learning especially when assessment involved technology and conducted remotely in varied platforms. (5) Further studies may conduct related to assessment with the following focus or area of concentration; Narrative Inquiry of Communication and Feedback Strategies Employed by Teachers, Quality of Innovations on Assessment in MAPEH and Proposed Comprehensive Intervention Program on Assessment: A Developmental Study.

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Affiliations and Corresponding Information

Angeline A. Subang, EdD
Iloilo State College of Fisheries
Philippines