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OPERATIONALIZATION OF SUMMATIVE ASSESSMENT IN MUSIC, ARTS, PHYSICAL EDUCATION AND HEALTH (MAPEH): ITS CHALLENGES, INNOVATIONS, AND INTERVENTIONS

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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 elementary school teachers in Sual District, Schools Division Office I Pangasinan for the school year 2025-2026. This study also determined whether significant relationship existed among challenges, innovations and interventions. The participants of this study were the randomly selected public elementary 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 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 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: operationalization, summative assessment, MAPEH challenges, innovations, and interventions

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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, & Dyment, 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 leaners, 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).

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 programs 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.

Statement of the Problem

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 public elementary schools in Schools Division Office I Pangasinan during the school year 2025-2026.

Specifically, it sought to answer the following questions:

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

METHODOLOGY

This chapter presents the research design, sources of data, instrumentation and data collection and the tools for data analysis.

Research Design

Descriptive survey research design was used in this study. The process of description went beyond the mere gathering and tabulation of data. It involves an element of analysis and interpretation of significance of what is described (Good and Scates). Indeed, through descriptive survey research design which is the most appropriate to undertake this research is "a type of research used to depict present day condition, settings and events".

Sources of Data

The participants of this study were the elementary MAPEH teachers of Schools Division Office I Pangasinan.during the school year 2025-2026.

Instrumentation and Data Collection

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 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.

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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.

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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.

The researcher sought approval from the Schools Division Superintendent and the 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). The questionnaires were made through google forms and was then distributed to the respondents through a google form link.

For the qualitative part, the Focus-Group Discussion was conducted the eight (8) participants through face-to-face interaction.

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.

Tools for Data Analysis

The data retrieved were tabulated, analyzed and interpreted using the following statistical tools:

To answer sub-problems 1 and 2, average weighted mean was used.

To answer sub-problems 3 and 4, t-test was used

To answer sub-problem 5, chi square was used.

RESULTS AND DISCUSSION

This chapter deals with the presentation, analysis and interpretation of the data gathered relative to sub-problems in the study.

Table 1
Profile of the Respondents

Categories	**f**	**%**
Educational Attainment		
Bachelor's Degree	226	78
Master's Degree	61	21
Doctorate	3	1
Total	**290**	**100**
Teaching Experience	**f**	**%**
1-10 years	185	63.8
11 years and above	105	36.2
Total	**290**	**100**
School Type		
Small	46	15.9
Medium	95	32.7
Large	118	40.7
Mega	31	10.7
Total	**290**	**100**

The profile of the participants was shown in table 1. Elementary 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%.

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*	0.0000
Within Groups	103.28	285	0.36		
Total	**153.04**	**289**			

*p<0.05 signifcant @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."

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

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 signifcant @5% alpha level
Ns p>0.05 not significant @5% alpha level

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).

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 assessment in MAPEH truly authentic, functional and feasible.

Table 4
Challenges Encountered, Innovations Developed and Interventions Made by MAPEH Teachers in the Operationalization of Summative Assessment

Variables	r	r2	Sig
Challenges Encountered and Innovation Developed	.580*	33.64*	0.000
Challenges Encountered and Intervention Made	.500*	25.00*	0.000
Innovation Developed and Intervention Made	.776*	60.22*	0.000

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

MAPEH Teachers in the Operationalization of Summative Assessment

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.

Summary

MAPEH teachers when categorized into educational attainment, majority of whom are bachelor's degree holders. As to teaching experience, most of them have short teaching experience. As to school type, most teachers were from small schools. 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. 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. The challenges, innovations and interventions are interacting, interrelated and interconnected elements or components as teacher operationalize the summative assessment.

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 learners, 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.

Recommendations

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 maybe 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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