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TEACHING COMPETENCY AND MUSIC PERFORMANCE AS MODERATED BY TEACHERS' ICT SKILLS

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Abstract:
The purpose of this study was to determine teaching competency and music performance as moderated by the ICT skills of teachers. Utilizing quantitative, non-experimental design via correlational technique, data were obtained from 300 MAPEH teachers of the public secondary schools who are teaching junior high school students (Grades 7, 8, 9 and 10) under the Division of Sarangani, Sarangani Province, Region XII. The researcher utilized total population sampling and an online survey mode of data collection. The researcher also utilized statistical tools such as mean, Pearson r, multiple regression and moderator analysis. From the results of the study, it was found that there are very high levels of mean scores of teaching competency, and high levels of music performance and teachers' ICT skills. Furthermore, there is a significant relationship between teaching competency and music performance, a significant relationship between teaching competency and teachers' ICT skills, and a significant relationship between teachers' ICT skills and music performance. Moreover, there is no moderation in the effect of teachers' ICT skills on the relationship between teaching competency and music performance.

Keywords: education, teachers ICT skills, teaching competency, music performance, correlation, regression, moderation analysis Philippines

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1. Introduction

The psychological distress experienced by most musicians is extensive, involving anxiety symptoms, depressive symptoms and music performance anxiety, this latter being related to the public and musician's demands. A study by Barbar, Crippa and Osorio (2014) showed that 19% of a sample of 230 Brazilian professional and amateur musicians had indicators of social anxiety, 20% had indicators of depression and 24% had indicators of music performance anxiety. Previous research has also underlined that the music performance self-efficacy presentation format has a significant effect on the adjudicators' performance ratings, but the results are inconclusive (Iusca, 2013). While there is agreement that there should be highly competent music teachers in every classroom, there is often a lack of consensus in identifying and describing effective music teachers. A particular given is that music teaching involves a multitude of different tasks, and as the tasks prescribed for the music teacher vary, so do the criteria for evaluating the effectiveness of the teacher (Brand, 2009).

Music performance is not only the output of repeated physical acts but also a synthesis of physical and psychological aspects. Since human beings are not machines and are prone to error, in order to prevent or reduce symptoms of performance anxiety such as loss of concentration, stage fright, or memory lapses on stage, the physical practice should be combined with mental practice to obtain optimal results (Lee, 2015). A notable aspect of music performance self-efficacy focuses on solitary music making and music making in large or small ensembles. One of the most profound experiences in music performance is the joining together of many players to create a cohesive and complex sound out of many individual voices. This feeling of togetherness and being a part of something greater than oneself may be an important component (Keay, 2018).

It is argued by Palfrey and Gasser (2011) that the Internet with the properties that characterize the second and third generations, presents opportunities for digital natives to learn to create, express, and enjoy new works of art. Among these attributes of the Internet, tools are dedicated to musical composition will be the focus of this study. Also, as pointed out by Behar, Rosas, Longhi and Bernardi (2013) and Rosas (2013), composition performed by the computer associated with tools with these characteristics, can also assist in developing competencies for music technology in the educational context. Realizing the effect of ICT on the workplace and everyday life, today's educational institutions try to restructure their educational curricula and classroom facilities, in order to bridge the existing technology gap in teaching and learning. This restructuring process requires the effective adoption of technologies into existing environments in order to provide learners with knowledge of specific subject areas and to promote meaningful learning (Buabeng-Andoh, 2012).

There are only a few studies that discussed teaching competency, music performance, and teacher ICT skills. The researcher also did not come across any study of teaching competency, music performance, and teacher ICT skills in the local setting which could only be a tool for an improvement plan. It is along the above-stated scenarios

that this study is conducted. Thus, the findings of this study would add to the emaciating literature on teaching competency, music performance, and teacher ICT skills.

2. Literature Review

2.1 Teaching Competency

A teacher's demonstrated impact on students' learning is established through student achievement test scores, observed pedagogical practices, or employer or student surveys. Teacher competence is the single most important feature of schools that boosts student achievement and the second most important determinant of student learning after family background. Students who have good teachers learn more than students who have underperforming teachers. Teacher competence is reflected in their performance in the classroom. The understanding of competence in teaching is at a relatively early stage of development in many countries. Competent teaching has become such a ubiquitous term that it lacks a clear meaning because it has many complexities to be encountered and resolved (Richardson, 2017). However, it is important to consider teaching competence so that the most effective practices are encouraged and the most supportive conditions are provided (Darling, 2016). In addition, teachers need even more sophisticated abilities to teach students who have a broad range of learning needs.

Moreover, competent teaching means teaching that adheres to the moral and rational principles of teaching practice. Thus, the content being taught meets the standards of discipline in terms of both adequacy and completeness. The method used is also in accordance with the age, carried out morally, and performed with the aim to increase the capabilities of students associated with the content being taught. Effective teaching behavior becomes the foundation of good teaching and is described as the idea of teacher expertise. Thus, good teaching could be observable when the direct instructional model of teaching is ongoing (Berliner, 2015).

Further, competency has been defined as a requirement of a competency-based teacher education which includes the knowledge, skills and values of a teacher trainee to demonstrate the successful completion of a teacher education program (Houstan, 2017). It includes the acquisition and demonstration of the composite skills required for student teaching like establishing a lesson, fluency in questioning, probing questions, amplification, rapidity of the lesson, strengthening, sympathetic child psychology, recognizing performances, classroom supervision, and generous assignments. Competency development is a continuous process in the institution. It was defined by Passi and Lalitha (2015) that teaching competency is the effective performance of all observable teachers' behavior that brings about desired novice effects. It was also defined by Walker (2016) that competencies are the attributes which enable an individual or group to perform a role to an appropriate grade of quality and thus, make the individual or group experienced in that responsibility.

The first indicator of teaching competency is planning. Planning involves the attitudes, perceptions and experiences of the teachers participating in the planning of teaching in the context of the lesson study. Lesson study is a process of improving

teaching and learning, not only for students but also for teachers, which originally appeared in Japan (Giannakidou, Yoftsali, & Tziora, 2013). In its context, the participating teachers collaborate collectively for their professional development by creating learning communities through the design of a research lesson (Penteri, Karadimitriou, & Rekalidou, 2013). Its teaching and observation are used to collect data on student learning.

The second indicator is development. Development places emphasis on the importance of research on daily classroom practice as a tool for their professional development. A study revealed teachers' positive attitudes regarding the use of research in promoting their professional development and raising their professional status (Moutafidou, Artemis & Georgopoulou, 2012). It was also stated by Katitia (2015) that the best approach is that teacher education programs must be based on relevant research findings focused on the enhancement of teacher education program. An effective education program therefore will prepare teachers for the enormous tasks of the twenty-first century. To be considered high-quality, professional development must be delivered in a way that yields a direct impact on teacher practice. Furthermore, teacher professional development involves many processes, actions, and mechanisms which are inevitably mediated by the cultural, social, political, and economic features and conditions of each particular context (Tan & Dimmock, 2014).

The final indicator for teaching competency is the result wherein evaluation results of schools, principals, teachers and learners reflect educational quality. If teachers and principals implement the results to develop learning management, learners' quality will be improved and changes will be created in policy-making and activities in schools. Implementation of results must be done in a systematic way. Strategy planning, work strategies and success criteria are important mechanism that helps determine the visions of schools when using results (Khong-ngam, Wongwanich & Piromsombat, 2013).

Lastly, one additional result from an experiment is worth briefly mentioning. It was found by Sartain and Steinberg (2016) that evaluations induced low-performing teachers to leave their schools at higher rates. This result parallels recent research where the introduction of a new evaluation system districtwide also resulted in higher turnover rates for low-performing teachers (Cullen, Koedel, and Parsons, 2016). While such turnover is not a mechanism for improving the effectiveness of individual teachers, it can contribute to an improvement in average teaching effectiveness if the existing teachers are replaced by relatively higher-performing teachers.

2.2 Music Performance

Participating in music ensembles paves the way for receiving instructions as to what to play and how to play musical instruments. However, it neglected their self-perceptions of their abilities (Zelenak, 2010). This has led students in harnessing and refining their physical coordination, aural acuity, and visual discernment through spending more hours of practices yet minimal time was spent nurturing their beliefs in those abilities. Specifically, self-perception of self-efficacy has been linked to achievement in music performance (Zelenak, 2010).

Further, musical performance has recently gained increasing interest in the field of human cognition, specifically regarding its positive effects on brain development. It was stated by Cogdill (2015) that having a strong musical self-concept is a crucial component of whether students will have the motivation to persist with music. Musicians dedicate a large part of their lives to learning a diverse range of musical expertise, such as symbol comprehension, language rules, interpretation through singing or an instrument, and coordination of senses, both cognitive and physical; the such extensive practice has a high associated cost. Nevertheless, those who consider music to be a fundamental part of their lives convert their musical facet into a lifestyle, profession, or passion with a high level of commitment. Musicians continue to invest extensive effort and time into their musical performance. For this reason, cognitive processes are considered to be involved in the process of becoming a musician (Valero, Magraner & Tatay, 2019).

The first indicator is mastery experience which is the personal experience of success. In this study, mastery experience pertains to the ability and confidence in physical education during creative learning. Mindful learning may directly influence the process of developing a mastery experience by improving the acquisition of knowledge, remaining open to feedback, and enhancing focus and awareness. These mindful learning techniques were found to be effective in improving school students' mastery experience in music performance (Bakosh, Snow, Tobias, Houlihan, Barbosa-Leiker, 2016). Therefore, when mindful learning is implemented by the student, creativity may be enhanced (Davenport & Pagnini, 2016) and this improved performance is likely to contribute to the feeling of success, otherwise known as mastery experience. The researchers of a present study drew connections between mindful learning and mastery experience to investigate possible use within digital creativity enhancement games.

The next indicator is vicarious experience wherein social learning account of the value of vicarious experiences in human learning has received substantial empirical and theoretical support. Observing others performing a stressful task provides the observer with information regarding specific coping skills and the belief that if others can do this, perhaps the self can, too. Live modeling vicarious experiences are those in which the observer is present during task performance such as attendance. Symbolic modeling vicarious experiences are symbolic representations of the performance like through videotapes shown in classes or through verbal accounts of friends' and families' stories (Farley, 2011).

The third indicator is verbal/social persuasions which come from one's environment and can include performance feedback from a supervisor or colleague, conversations in the teaching community, or insights taken in from the media. Bandura (2011) attested that social persuasion may be limited in its impact, but it can contribute to success by driving an individual to initiate a new practice or strategy, tackle a task, or work with perseverance to achieve goals. The concept of social persuasion extends to the school community as a whole. Collective efficacy is powerful; negative conversations among teachers breed lower efficacy, while teachers working together to address learning, behavioral problems, and motivation builds higher efficacy (Trower, 2019).

Additionally, verbal/social persuasion is viewed as a kind of feedback or actions taken by an external agent to provide information regarding some aspect of one's task performance, considering that its purpose is to make people believe that they possess the capabilities to master given tasks and to increase their confidence in rising to address workplace challenges, or also known as self-efficacy (Karfors, 2018). Relatedly, verbal/social persuasion refers to feedback from others, where positive reinforcements and negative criticisms can raise or lower efficacy. While efficacy beliefs based on verbal/social persuasion are weaker than those based on personal experiences, feedback can persuade people that are capable of mastering difficult situations (Macafee & Comeau, 2020).

The last indicator is a physiological state which are states or emotional/physiological states that are sources of efficacy information. Powerful emotional arousal, such as anxiety, can effectively alter individuals' beliefs about their capabilities. People may view a state of arousal as an energizing factor that can contribute to a successful performance, or they may view arousal as completely disabling. Thus, teachers construct their self-efficacy beliefs through the interpretation and integration of information from these four sources. Moreover, trait differences in physiological states to environmental threats can predict beliefs. Also, emotions, including the ability to regulate and manage them, may predict beliefs but without using incidental emotions to further isolate their impact on attitudes (Renshon et al., 2015). Neubauer et al., (2020) also emphasized that physiological states signify a precursor to maladaptive decision-making, which could be used to provide a notification; a change in teammate communication; or an adjustment to the level of autonomy.

2.3 Teachers' ICT Skills

Teaching is becoming one of the most challenging professions due to the expansion of knowledge and demands to learn modern technologies to use in the teaching-learning process. ICT can provide more flexible and effective ways or methods for the professional development of teachers to maintain their jobs, improve their competencies and connect them to the global teacher community. ICT aims to improve the performance of teachers and students which increases the effectiveness and efficiency of the teaching-learning process (Sahito & Vaisanen, 2017).

ICT literate and expert teachers are the need of the time in all types of educational institutions for their success. As, the ICT skills of teachers enhanced their teaching theoretically and practically in vocational education specifically and tertiary education generally (Khan & Markauskaite, 2017). There is a growing demand to incorporate ICT in the mainstream of teaching in vocational education (Bliuc, Casey, Bachfischer, Goodyear & Ellis, 2012; Khan, 2015) to have positive effects on teaching and learning, which are defined approaches as strategies adopted by teachers for their effective teaching and achievement of students.

The first indicator is basic hardware operations. According to this transformation to a more technology-enhanced learning approach, Hattie (2013) has indicated that an analysis of the meta-analyses of computers in schools indicates that computers are used

effectively when there is a diversity of teaching strategies; when there is a pre-training in the use of computers as a teaching and learning basic hardware tools; when there are multiple opportunities for learning; when a student, not teacher, is in control of learning; when peer learning is optimized; and when feedback is optimized. In other words, the author claimed that the following conditions should be fulfilled in order to integrate technology into the classroom; namely the role of the teacher, the need for professionalization, and the need for adapted teaching and learning approaches (Montrieux, Vanderlinde, Schellens & De Marez, 2015).

Similarly, investment in computer hardware, software and connectivity may offset other inputs that affect student achievement in the context of the household and the school. Likewise, time spent using computers offsets other educational or recreational activities. We discuss the extent to which the estimates in the literature reflect these trade-offs. Investment in computers for schools is divided into two broad areas namely: investment in information and communications technologies such as computer hardware and Internet connections, and specific software used for computer-aided instruction (Bulman & Fairlie, 2015).

The next indicator is personal ICT usage. The need for the development of ICT is a global resolution and has been a subject of great significance to all mankind. These technologies have become central to contemporary societies. Whether personally, one is talking on the phone, sending an email, going to the bank, using a library, listening to sports coverage on the radio, watching the news on television, working in an office or in the field, going to the doctor, driving a car or catching a plane, one is using ICT. Information and communications technology is a shorthand for the computers, software, networks, satellite links and related systems that allow people to access, analyze, create, exchange and use data, information and knowledge in ways that were almost imaginable. The prevalence and rapid development of ICT have transformed human society from the information technology age to the knowledge age (Ghavifekr, 2014).

Additionally, information and communication technology has contributed immensely to social and economic improvements, such as higher employment and productivity, and increased access to a higher quality of life. ICT incorporates electronic technologies and techniques used to manage information and knowledge, including information-handling tools used to produce, store, process, distribute and exchange information. Benefits of ICT can be achieved personally and directly, through improved healthcare provision and disease prevention, or indirectly, through improved social infrastructure, economic growth, or other broader determinants of population health. In the context of public health, ICT, if properly designed and implemented, can generate many positive outcomes: improved access for communities in rural or remote areas; support of healthcare professionals; real-time disease surveillance; data sharing; and data capture, storage, interpretation, and management (Joshi et al., 2013; Lewis, Hodge, Gamage & Whittaker, 2012).

The final indicator of teachers' ICT skills is the use of ICT for teaching. Many researchers agree that technology can be used effectively as a cognitive tool as well as an instructional media. It was suggested that technology can be helpful in the classroom by

encouraging inquiry, helping communication, constructing teaching products, and assisting students' self-expression. Also, it is impossible not to pay attention to the significant impact of technology when discussing instruction, education, or training issues (Gilakjani, 2013). Overall, the key issues and challenges found to be significant in using ICT tools by teachers were: limited accessibility and network connection, limited technical support, lack of effective training, limited time and lack of teachers' competency (Ghavifekr, Kunjappan, Ramasamy & Anthony, 2016).

In addition, an important factor for teachers to integrate technology into instruction is being trained in how to integrate technology into education. In this regard, teacher education programs play a significant role in training pre-service teachers to integrate ICT into education. With that, pre-service teachers' perceptions of ICT integration in teacher education are highly important to investigate whether the programs for teacher education are sufficient to prepare pre-service teachers to acquire and integrate ICT competence in their pre-service education and in their prospective life (Aslan & Zhu, 2015).

2.4 Correlation between Measures

Teacher music performance self-efficacy may also be defined as teachers' beliefs or judgments in their ICT skills to enhance students' learning. Thus, music performance affects the teacher's mental structure capitalized on in the organization of learning activities and his/her capacity to do activities in the class (Pendergast, Garvis, & Keogh, 2011). Improved teacher competency levels in technology use have been linked to increased music performance among teachers (Wang & Wu, 2015), which, following a concept of social learning would in turn lead to an increased usage of technology. A research study by Al-Ruz and Khasaweh (2011) which tested a model in which technology use of pre-service teachers was correlated with a number of university-based and school-based factors, reported that music performance had the highest effect on technology integration.

Moreover, a study also showed that the way the technology was used by those who integrated it, was at a rudimentary level, and not in a manner that could promote desired twenty-first century ICT skills including critical thinking and problem-solving. This also concurs with previous studies that even if new teachers use technology, they use it at a very basic level which does not maximize the potential of technology in learning (De Santis & Rotigel, 2014). The study also indicated that the teacher competency displayed by the participants was traditional teaching practices, therefore, as the literature has denoted, it was not surprising that there was limited technology use by the pre-service teachers in their music performance (Batane & Ngwako, 2017).

Digital technology is also important for schools, and hence for teacher competency. Recent research indicates that music performance is important for how teachers master their practice. A paper addressed teachers' ICT skills and music performance for educational purposes and examines the assumed antecedents of teachers' ICT skills and music performance. One interpretation of these findings is that general ICT skills and music performance are necessary for developing ICT skills and

music performance for educational purposes and being able to utilize ICT skills in education (Hatlevik & Hatlevik, 2018).

In another study, the focus on teachers' ICT skills and music performance for instructional purposes describes the self-confidence teachers have when it comes to utilizing their ICT skills in their own teaching and instruction (Krumsvik, 2014). There were distinctions between being confident about using ICT on your own and using ICT for pedagogical purposes. Similar data used by Scherer and Siddiq (2015), reported that computer self-efficacy in basic and advanced ICT operational and collaborative skills, and music performance in using computers for instructional purposes, are highly correlated but separate constructs. One way to interpret this positive association is that teachers' competency in their own ICT skills is a necessary, but not a sufficient, determinant for music performance self-efficacy in using ICT for instructional purposes.

A model of education is set by the educational policy according to teaching subjects in the school curricula, the process, postulates and the needs of the new era for modernizing higher education (Report to the European Commission, 2013). Since teachers come from state faculties, faculties play an important role in examining and strengthening their teacher competency preparation programs to ensure they are graduating quality teachers. This situation also refers to music education which should develop the students' specific competencies irrespective of their musical predispositions. Due to the complexity of the subject, especially performing music, the duration and the manner of studying is of crucial importance. In this way, future teachers will improve competencies and increase music performance which is the greatest predictive power of attainment. Music performance self-efficacy is the first step in helping generalists to develop the right blend of ICT skills, knowledge and understandings, necessary to teach music and to boost their own creativity (Zelenkovska & Islam, 2017).

Additionally, the use of digital technology has become an inseparable part of teacher competency at all levels of education. Innovative applications of a variety of technological tools, such as mobile phones, TV and the Internet, have opened up new ways of e-learning to complement traditional classroom face-to-face instruction (Kapenieks et al., 2014). This ultimately raises the question of teachers' ICT skills, particularly their skills in handling various online resources, especially knowing that most search mechanisms and digital information resources are not created specifically for educational purposes like most collections online are fragmentary, and information often varies in quality, accuracy and scope. A mixed-method exploratory study focused on teachers' online search performance and examines its relationship to teachers' perceived music performance (Karaseva, 2016).

This study is anchored on the theory of Generative Theory of Tonal Music (GTTM) by Lerdahl and Jackendoff (1983) which defines the distance between time-span trees, on the hypothesis that this might coincide with the psychological resemblance between melodies heard by human listeners. To confirm the feasibility of the proposed framework, an experiment was conducted to determine whether the distance calculated on the basis of the framework reflects cognitive distance in human listeners.

This study is also supported by the theory of Medley (1977) which has been the most common theory about teacher competence. It was pointed out that pre-instruction or teacher expectation and instructional planning, which provided direction for teaching, learning and achieving desired outcomes was regarded as one of the most important competences. Also, teachers need to have another important competence, presentation, wherein the effective teaching and learning plan can be implemented and the opportunity for all students to learn can be optimized.

Furthermore, it was stated by Medley (1977) that teacher competency was viewed as any single knowledge, skill or professional value position which is believed to be relevant to the successful practice of teaching. Competence refers to the repertoire of competencies a teacher possesses. Overall competencies are a matter of the degree to which a teacher had mastered a set of individual competencies, some of which were more critical to a judgment of overall competence than others. Teacher competence is also the knowledge, abilities and skills a teacher possesses.

This study is also supported by the theory Diffusion of Innovations by Rogers (2003) which states the process by which an innovation is communicated through certain channels and over time among the members of a social system. The process starts with knowledge of the first channel that represents characteristics of the decision-making unit by the ICT users in order to integrate the technology. It then ends with confirmation by the users to accept the technology and integrate it accordingly (Ghavifekr & Rosdy, 2015).

3. Material and Methods

The study utilized a quantitative, descriptive, non-experimental design using a correlation technique. This aided in determining the levels of teaching competency, music performance and teachers' ICT skills. Quantitative research narrows itself to statistical analyses of collected data via survey questionnaires employing computational approaches (Trefry, 2017). Furthermore, the researcher obtained numerical data from the population in order to establish accuracy. Descriptive research depicts the precise selection of respondents through a survey (Kowalczyk, 2018). The design provided a description of the relationship between teaching competency, music performance and teachers' ICT skills.

The correlational technique is a non-experimental approach in which it analyzes the relationship between two or more variables without reserve. It also looks into the degree of association by relating it with other variables. Apparently, correlational studies have an independent and dependent variable with the effects of the independent variable observed on the dependent value (Patidar, 2013). This design was used to align the variables based on the discussion of the aforementioned related literature. This technique was appropriate since the study aims to determine the significant relationship between teaching competency, music performance and teachers' ICT skills. The study purposely identified the moderating variable of Teachers' ICT skills because the researcher, being a MAPEH teacher wants to establish whether ICT skills of teachers have a significant moderating effect on teaching competency and music performance of MAPEH teachers

and that ICT skills can be a good tool/ strategy in improving the teaching competency and music performance of MAPEH teachers. A moderator analysis is used to determine whether the relationship between two variables depends on (is moderated by) the value of a third variable. a moderator analysis is really just a multiple regression equation with an interaction term. What makes it a moderator analysis is the theory and subsequent hypotheses that surround this statistical test (Jose, 2013).

The respondents of this study included the 300 MAPEH teachers of public secondary schools who are teaching junior high school students (Grades 7, 8, 9 and 10) under the Division of Sarangani, Sarangani Province, Region XII. With a desire to give everyone a chance to be included in the study, a total population sampling was used. Total population sampling is a design where you choose to examine the entire population that has a particular set of characteristics such as specific experience, knowledge, skills, and exposure to an event (Laerd, 2012). In particular, the respondents were teachers under the MAPEH, who are currently employed for the Academic Year 2021-2022). In particular, the respondents are public secondary school teachers under the MAPEH department which included those who are full-pledged P.E. teachers and non-P.E. teachers but who are presently handling or teaching P.E. subjects as they can answer the survey questionnaire considering that they are in the same working situation with the full-pledged P.E. teachers and they are the ones who are in the position to provide useful information to test the hypothesis of the study.

Those teachers in the elementary department and those who are not teaching under the MAPEH department in the identified areas are excluded from the study for they are in different work environments and supervision. Teachers who are working in private schools whether in the same or other departments are also excluded including those teachers also who hold a managerial or supervisory position in the MAPEH department. The respondents were chosen accordingly to answer the questionnaire with confidentiality. The target respondents were free to decline from participating in the survey. The respondent can be withdrawn from the research study if he/she commits falsification, plagiarism and other moral offenses or if the respondents have health conditions and special needs. They were forced to answer the research questionnaire and encourage to return the same to the researcher for its automatic disposal. Moreover, they can withdraw anytime their participation in the research process if they feel uncomfortable about the study since they are given the free will to participate without any form of consequence or penalty. If so, the respondent must inform the researcher if he/she wants to back out and may present valid reason(s) for leaving.

For a more comprehensive interpretation and analysis of the data, the following statistical tools were utilized. Mean was used to determine the level of teaching competency, the level of music performance of teachers and the level of teachers' ICT skills. Pearson r was used to determine if the relationship between teaching competency, the music performance of teachers and teachers' ICT skills is really significant. Moderator Analysis will be used to determine the significant moderating effect of teachers' ICT skills on the teaching competency and music performance of MAPEH teachers (Jose, 2013).

4. Results and Discussion

Table 1: Level of Teaching Competency

Indicators	Mean	SD	Descriptive Level
Planning	4.60	0.472	Very High
Development	4.64	0.415	Very High
Result	4.61	0.468	Very High
Overall	**4.62**	**0.411**	**Very High**

The level of teaching competency is very high resulting from the very high levels responses. The indicators of development, result and planning have very high ratings. These indicators are arranged from the highest to the lowest level.

The very high-level rating of development indicates that teachers highly relate to student learning and that their professional development results in higher student learning. This claim is in line with various authors (Katitia, 2015; Tan & Dimmock, 2014) stating that the effective development of an education program prepares teachers for the enormous tasks of the twenty-first century. Teacher development involves various processes, actions, and mechanisms which are mediated by the cultural, social, political, and economic features and conditions of each particular context.

Furthermore, the very high-level rating of result indicates the very high evaluation results of schools, principals, teachers and learners reflect educational quality. This is in line with various authors (Cullen et al., 2016; Sartain & Steinberg, 2016) wherein evaluations can contribute to an improvement in average teaching effectiveness if the exiting teachers are replaced by relatively higher-performing teachers. The introduction of a new evaluation system results in higher turnover rates for low-performing teachers.

Lastly, the very high-level rating of planning reflects the very high participation of teachers in the planning of teaching in the context of the lesson study. This claim is aligned with various authors (Giannakidou et al., 2013; Hatch, 2015; Penteri et al., 2013) who mentioned that lesson study is a process of improving teaching and learning, not only for students but also for teachers. The participating teachers collaborate collectively for their development by creating learning communities through the design of a research lesson. Learning how to plan for effective instruction is a critical part of the work performed daily by the school teacher.

Table 2: Level of Music Performance

Indicators	Mean	SD	Descriptive Level
Mastery experiences	4.08	0.829	High
Vicarious experiences	4.16	0.776	High
Verbal and social persuasion	4.08	0.842	High
Physiological state	4.15	0.814	High
Overall	**4.12**	**0.759**	**High**

The level of music performance is high resulting from the high-level responses. The indicators of vicarious experiences, physiological state, mastery experiences, and verbal

and social persuasion have high ratings. These indicators are arranged from highest to the lowest level.

The high-level rating of vicarious experiences suggests high coping skills and the belief that if others can do it, perhaps the self can, too. This is supported by the statements of various authors (Bandura, 2011; Berkowitz et al., 2012; Farley, 2011) who mentioned that live modelling vicarious experiences in which the observer is present during task performance such as attendance, influences attitudes and management. Vicarious experiences can also come from hearing stories and reading literature about a particular topic or skill the reader is hoping to build.

Moreover, the high-level rating of physiological state indicates that teachers have high emotional/physiological states that are sources of efficacy information. This is in line with various authors (Neubauer et al., 2020; Renshon et al., 2015) stating that trait differences in physiological states to environmental threats can predict beliefs. Physiological states are a precursor to maladaptive decision-making, and are used to provide a notification; a change in teammate communication; or an adjustment to the level of autonomy.

In addition, the high-level rating of mastery experiences suggests the high factors that provide the most realistic information to individuals on being able to deal with newly encountered situations. This is supported by the statements of various authors (Bakosh et al., 2016; Davenport & Pagnini, 2016) who mentioned that mindful learning may directly influence the process of developing mastery experience through improving the acquisition of knowledge, remaining open to feedback, and enhancing focus and awareness. When mindful learning is implemented, creativity may be enhanced and this improved performance is likely to contribute to the feeling of success, known as a mastery experience.

Similarly, the high-level rating of verbal and social persuasion indicates high-performance feedback from a supervisor or colleague, conversations in the teaching community, or insights taken in from the media. This is supported by the statements of various authors (Macafee & Comeau, 2020; Trower, 2019) who mentioned that collective efficacy is powerful as negative conversations among teachers breed lower efficacy, while teachers working together to address the learning, behavioral problems, and motivation builds higher efficacy. While efficacy beliefs based on verbal/social persuasion are weaker than those based on personal experiences, feedback can persuade people that are capable of mastering difficult situations.

Table 3: Level of Teachers' ICT Skills

Indicators	**Mean**	**SD**	**Descriptive Level**
Basic hardware operations	4.21	0.636	Very High
Personal ICT usage	3.95	0.773	High
Use of ICT for teaching	4.34	0.583	Very High
Overall	**4.17**	**0.606**	**High**

The level of teachers' ICT skills is high resulting from the very high and high levels responses. The indicator's use of ICT for teaching and basic hardware operations has very high ratings while the indicator of personal ICT usage has a high rating. These indicators are arranged from the highest to the lowest level.

The very high-level rating of the use of ICT for teaching is a reflection of using technology effectively as a cognitive tool as well as an instructional media. This claim is in line with various authors (Aslan & Zhu, 2015; Ghavifekr et al., 2016) stating that studying the issues and challenges related to ICT use in teaching and learning can assist teachers in overcoming the obstacles and becoming successful technology users. Teachers' perceptions of ICT integration in teacher education are highly important to investigate whether the programs for teacher education are sufficient to prepare teachers to acquire and integrate ICT competence in their education and in their prospective life.

Further, the very high-level rating of basic hardware operations indicates that there is a very high transformation to a more technology-enhanced learning approach. This is supported by the statements of various authors (Montrieux et al., 2015) stating that the following conditions should be fulfilled in order to integrate technology into the classroom; namely the role of the teacher, the need for professionalization, and the need for adapted teaching and learning approaches. Also, investment in computer hardware, software and connectivity may offset other inputs that affect student achievement in the context of the household and the school.

Lastly, the high-level rating of personal ICT usage indicates that there is a high need for the development of ICT which has been a subject of great significance to all mankind. This claim is in line with various authors (Ghavifekr, 2014; Joshi et al., 2013; Lewis et al., 2012) wherein technologies have become central to contemporary societies. The prevalence and rapid development of ICT have transformed human society from the information technology age to the knowledge age. Information and communication technology has contributed immensely to social and economic improvements, such as higher employment and productivity, and increasing access to a higher quality of life.

Table 4.1: Correlations between Teaching Competency and Music Performance

Teaching Competency	**Music Performance**				
	ME	**VE**	**VSP**	**PS**	**Overall**
Planning	.480	.489	.454	.399	**.489**
	.000	.000	.000	.000	**.000**
Development	.486	.512	.482	.433	**.513**
	.000	.000	.000	.000	**.000**
Result	.477	.534	.472	.468	**.523**
	.000	.000	.000	.000	**.000**
Overall	**.528**	**.562**	**.515**	**.476**	**.559**
	.000	**.000**	**.000**	**.000**	**.000**

The correlation between measures of teaching competency and music performance revealed a significant relationship. This implies that teaching competency is significantly correlated with music performance. The findings of this study are in line with the

statements of various authors (Report to the European Commission, 2013; Zelenkovska & Islam, 2017) stating that faculties play an important role in examining and strengthening their teacher competency preparation programs to ensure they are graduating quality teachers. This situation also refers to music education which should develop the students' specific competencies irrespective of their musical predispositions. Due to the complexity of the subject, especially performing music, the duration and the manner of studying is of crucial importance. In this way, future teachers will improve competencies and increase music performance which is the greatest predictive power of attainment.

Table 4.2: Correlations between Teaching Competency and Teachers' ICT Skills

Teaching Competency	**Teachers' ICT Skills**			
	BHO	**PIU**	**UIT**	**Overall**
Planning	.408	.432	.500	**.487**
	.000	.000	.000	**.000**
Development	.464	.403	.541	**.507**
	.000	.000	.000	**.000**
Result	.436	.419	.529	**.500**
	.000	.000	.000	**.000**
Overall	**.478**	**.460**	**.574**	**.547**
	.000	**.000**	**.000**	**.000**

The correlation between measures revealed that there is a significant relationship between teaching competency and teachers' ICT skills. This implies that teaching competency is positively correlated with teachers' ICT skills. The result of this study confirms the statements of various authors (Kapenieks et al., 2014; Karaseva, 2016) wherein the use of digital technology has become an inseparable part of teacher competency at all levels of education. This ultimately raises the question of teachers' ICT skills, particularly their skills in handling various online resources, especially knowing that most search mechanisms and digital information resources are not created specifically for educational purposes like most collections online are fragmentary, and information often varies in quality, accuracy and scope. A previous study focused on teachers' online search performance and examined its relationship to teachers' performance.

Table 4.3: Correlations between Teachers' ICT Skills and Music Performance

Teachers' ICT Skills	**Music Performance**				
	ME	**VE**	**VSP**	**PS**	**Overall**
Basic Hardware Operations	.408	.383	.459	.428	**.451**
	.000	.000	.000	.000	**.000**
Personal ICT Usage	.482	.465	.539	.541	**.545**
	.000	.000	.000	.000	**.000**
Use of ICT for Teaching	.466	.482	.457	.469	**.503**
	.000	.000	.000	.000	**.000**
Overall	**.497**	**.486**	**.536**	**.530**	**.551**
	.000	**.000**	**.000**	**.000**	**.000**

The correlation between the measures of teachers' ICT skills and music performance revealed a significant relationship. This implies that teachers' ICT skills are positively associated with music performance. This claim is in line with various authors (Hatlevik & Hatlevik, 2018; Krumsvik, 2014) stating that the focus on teachers' ICT skills and music performance for instructional purposes describes the self-confidence teachers have when it comes to utilizing their ICT skills in their own teaching and instruction. Teachers' music performance for using their ICT skills in their teaching practice is associated with their use of ICT skills in teaching and their general ICT skills and music performance. Also, collegial collaboration among teachers has a positive association with the use of ICT skills in their teaching practice. General ICT skills and music performance is necessary for developing ICT skills and music performance for educational purposes.

Table 5: Significance on the Influence of Teachers' ICT Skills and Teaching Competency in Music Performance

		Music Performance			
		B	**B**	***T***	***Sig.***
Teachers' ICT Skills		0.438	0.350	6.511	0.000
Teaching Competency		0.678	0.367	6.830	0.000
R	0.631				
R^2	0.398				
F	98.191				
P	$p<0.05$				

There is a significant influence of teachers' ICT skills and teaching competency on music performance. This implies that teachers' ICT skills and teaching competency can influence music performance. The findings of this study negate the statements of various authors (Batane & Ngwako, 2017; De Santis & Rotigel, 2014) wherein the way the technology was used by those who integrated it, was at a rudimentary level, and not in a manner that could promote desired twenty-first century ICT skills including critical thinking and problem-solving. Even if new teachers use technology, they use it at a very basic level which does not maximize the potential of technology in learning. A previous study also indicated that teacher competency displayed by the participants was traditional teaching practices, therefore, it was not surprising that there was limited technology use by the teachers in their music performance.

Table 6: Moderating Effect of Teachers' ICT Skills on Teaching Competency and Music Performance

			95% Confidence Interval			
	Estimate	**SE**	**Lower**	**Upper**	**Z**	**p**
Teaching Competency	0.738	0.0949	0.5517	0.924	7.77	< .001
Teachers' ICT Skills	0.447	0.0559	0.3378	0.557	8.01	< .001
Teaching Competency ✻ Teachers' ICT Skills	0.180	0.1260	-0.0669	0.427	1.43	0.153

The aim of this study is to contribute to the literature regarding the possible moderating variable (ICT skills) on the relationship between teaching competency and music performance. Specifically, teachers' ICT skills were investigated as a possible moderating variable that could explain the relationship between teaching competency and music performance. The current study has found that teachers' ICT skills are not a moderator of teaching competency and music performance and did not meet the moderator analysis guidelines.

The moderation analysis involved teachers' ICT skills as a moderator between teaching competency and music performance. The findings negate the moderating effect of teachers' ICT skills on the relationship between teaching competency and music performance leading to negate one of the authors mentioned in this study Scherer and Siddiq (2015) who mentioned that computer self-efficacy in basic and advanced ICT operational and collaborative skills, and music performance in using computers for instructional purposes, are highly correlated but separate constructs. One way to interpret this positive association is that teachers' competency in their own ICT skills is a necessary, but not a sufficient, determinant for music performance self-efficacy in using ICT for instructional purposes. This implies that teachers' ICT skills do not moderate teaching competency and music performance.

The results of the general objective negate the theoretical framework of the study. The findings negate the anchor theory, the Generative Theory of Tonal Music by Lerdahl and Jackendoff (1983) wherein the implementation of a musical morphing system that, given two original melodies, generates an intermediate melody at any internally dividing point between them. Also, the findings negate the Teacher Competence and Teacher Effectiveness Theory by Medley (1977) which pointed out that pre-instruction or teacher expectation and instructional planning, which provided direction for teaching, learning and achieving desired outcomes was regarded as one of the most important competencies. Lastly, the findings negate the Diffusion of Innovations Theory by Rogers (1983) which states the process by which an innovation is communicated through certain channels and over time among the members of a social system.

The researcher can substantiate the result of this study that teachers' ICT skills do not have a moderating effect on the relationship between teaching competency and music performance. This is best illustrated by the fact that the teachers in our areas (research locale of the study) may have experienced difficulties in the use of ICT technology or their ICT skills due to the fact that the schools where they are teaching are in the far-flung areas, where ICT technology may not be the most practicable tool in the implementation of the teaching and learning competencies. This is coupled with the problem of the internet connection which is always experienced in these areas. Nonetheless, these present realities did not hamper the teachers' enthusiasm to teach the students the class lessons and PE activities. The teacher made use of other teaching strategies, which may be considered traditional but are effective within the given situation. They still continue to manifest their teaching competencies and become effective in the delivery of their PE classes.

5. Recommendations

The researcher came up with recommendations based on the results of the study. On the very high level of teaching competency, the researcher hereby recommends that the PE teacher may continue to provide the students with a variety of activities that would motivate the students to actively participate, whether it be a class or a general PE student population. The school management may allow the conduct of sports competitions before the end of the semester among the students per Grade level or if the situation warrants an interschool competition in order to boost the morale of the students and feel proud of their achievements in their field of expertise or talents. The giving of recognition and commendations to students for their best achievements or performances may be done through the awarding of medals and certificates during recognition or graduation ceremonies. There may be virtual awarding ceremonies to ensure that the achievements of students are still recognized and appreciated despite this time of the new normal. A good practice may be done in coming up with an evaluation process of the activities done in a year and identifying which activities increase the students' participation and motivation in class and which particular activity increases or needs improvement as far as the teacher's competencies in the PE class are concerned.

On the high level of music performance, the researcher recommends that the teacher may continue or even look for more strategies in the conduct of PE activities that would increase the interest of the students to participate in all class activities. This may include varieties of music exercises. In order to inspire or motivate the students to participate, the school management may purchase music equipment or paraphernalia (if the budget warrants) which are affordable and allow the students to use them during their PE classes or even during vacant periods. Intra-school or inter-school competitions may be opened to students, then this may be part of the yearly undertaking to showcase the best talents of the students and even to market the school and gain more enrollees.

On the very high level of ICT skills, the school management thru the initiatives of the teachers may look for possibilities of requesting with the local government unit concerned and negotiate for some financial assistance in the installation of internet connections with a bandwidth strong enough to cater to school activities during daytime classes. A specific budget may be requested and lobbied by the school for the approval of the said request. Moreover, the teachers may encourage all the students to start or continue exploring the different social media platforms. This may allow both the teachers and the students to appreciate technology as a tool in the teaching and learning process.

On the result of no moderating effect of ICT skills on the relationship between teaching competency and music performance, the school management may allow or continue to allow all the teachers to attend training and workshops on the appreciation of technology as one of the best tools in the delivery of their teaching lessons and activities and ultimately be able to render to the fullest their teaching abilities and capacities to all the students. Furthermore, the school management may provide the necessary ICT room and ICT paraphernalia for use by the teachers and students in the conduct of their classes.

If budget is not available then, an improvised room within the school may be utilized and purchase slowly the necessary equipment for the purpose.

6. Conclusion

With consideration of the findings of the study, conclusions are drawn in this section. There is a very high level of teaching competency, and high level of music performance and teachers' ICT skills. Furthermore, there is a significant relationship between teaching competency and music performance. Also, there is a significant relationship between teaching competency and teachers' ICT skills, and a significant relationship between teachers' ICT skills and music performance. Moreover, there is no moderation in the effect of teachers' ICT skills on the relationship between teaching competency and music performance.

In addition, the findings of the study negate the notion about the moderating effect of teachers' ICT skills on the relationship between teaching competency and music performance. The findings negate the anchor theory, the Generative Theory of Tonal Music by Lerdahl and Jackendoff (1983) which implemented a musical morphing system that, given two original melodies, generates an intermediate melody at any internally dividing point between them.

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Conflict of Interest Statement

The authors declare no conflicts of interest.

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