The importance of integrating technology within the PYP programme – implementing innovations within International Schools

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DOI: https://doi.org/10.5281/zenodo.7085663

Published Date: 16-September-2022

Abstract: Using technology within our classrooms to promote 21st century learning has been an expectation for most teachers. For those originally from South Africa are now teaching abroad it is expected that every individual should be familiar with the International Baccalaureate (IB) Primary Years Programme (PYP), that is the norm. Focusing on the Music curriculum it is important to understand the PYP programme and how to make provisions for those using technology to enhance their compositional skills as part of the responding module of PYP. The following research paper discusses the PYP programme focusing on the Arts and how to implement Garage Band into your music curriculum creating opportunities for students to engage, share, be creative and compose music, which is the emphasis of the IB curriculum. Students have to become natural inquirers and through guiding them to complete research, which demonstrates their understanding of the music concept being taught. The following research is completed to enlighten music teachers of how to integrate technology within their music programme for PYP.

Keywords: Howard Gardner, Garage Band, PYP Programme, Rhythm, Tonal, Texture.

I. INTRODUCTION

The idea of using technology to enhance your music lessons has been a challenge for most music teachers to accept, who are now teaching in International Schools abroad having studied in South Africa. Some of these teachers has been fortunate to gain further qualification with regards to teaching practices in England by completing the Qualified Teacher Status Qualification (QTS) through been recognised as an Overseas Trained Teacher (OTT) and given clear guidance to complete a Post Graduate Certificate in Education (PGCE) for Music through UK based University. Thus, having an understanding of the PYP programme is important and how to make provisions for students either on the English as Additional Language (EAL) or Gifted and Talented (G & T) register. The expectation of teaching being technologically driven and implementing and integrating music technology into their Primary Years Programme (PYP) has become the norm and the expectation for teachers in International Schools.

Following an interview with Mr Simba a Music teacher (2020) in an International School in West Africa who stated:

Music educational programmes have involved since we all completed our higher degrees at University. Teachers have to become informed about the various educational programmes used within International Schools. Teachers have to integrate technology into their lessons to stimulate the students and encourage participation and engagement. Differentiation has become a topic of discussion and these needs to be What are the challenges the teachers are facing in these International Schools, where some have equal training with the use of technology, especially when it comes to creating music and composition? Which music programmes are these teachers using to their advantage? Are most user friendly and easy accessible? implemented into their lesson plan and we planning music lessons. Teachers have to be familiar with the programme available to them to encourage students to achieve their targets and goals.

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Following a report by Mr Andrew Harrison the head teacher of St. Andrews International School in Thailand since 2005 who stated further, where the author has taught overseas that:

St. Andrews International School, Green Valley is a very unique school. We located on the outskirts of Pattaya in the Eastern Seaboard region of Thailand. With a population of over 460 students, from over 44 nationalities, we have a strong community family feel while still being able to offer the opportunities and diversity of a larger school. We provide a challenging and broad International Curriculum based upon the best of the English National Curriculum and the IBO programmes. Our curriculum has been tailored to reflect the needs of our diversity student body from Nursery (2 year olds) up to Year 13 (18 year olds). In 2014 we are seeking authorisation to deliver the Primary Years Programme (PYP) to our primary students, to complement the IGCSE courses and IBO (International Baccalaureate Diploma in Year 12 and 13) Diploma offering in our Secondary School… The school operates also operates a Dutch stream, structured according to the benchmarks set by the Dutch Government and Inspector of Education (www.standrewsrayong.com).

Technology plays a pivotal role in the development of child´s music abilities. This raised many questions to the researcher leading to whether a child who showed music abilities where remarkable and excellent composers through the use of technology? A child should display a level of intelligence for understanding the theoretical aspect of music as outlined and discussed by Gordon (2003, 374). Learners who use technology today can steadfast themselves through the creation of various compositions based on different drums sequences, instruments and loops. Can computerized music creation software motivate and enhance learners ″ music abilities and compositional skills? The purpose of this action research project was to evaluate the feasibility of using Apple´s Garage Band software as an effective tool to motivate learners in year 6 to compose? Garage Band is a music editing and recording software programme, which allows learners to create, edit and manipulate recorded sounds to create their own music without having to fully master instruments (Char, 2008; Hopkins, n.d).

II. BACKGROUND

Through your initial planning sessions when teaching abroad, the expectations are outlined through the PYP programme that most teachers should implement technology into their lessons to support the ideologies of 21st century learning, and promote "international mindedness". It is the current norm for teachers to share ideas, and collaborate with other music educators abroad, allowing students to share their knowledge and understanding of a topic being covered. Introducing students to music they are not familiar with and to countries including, China, Asia, India, South America and Indonesia, were students create music using gamelans, exploring music technology to create their own compositions, and share with their peers, ultimately promoting opportunities for students to elaborate what inspired them to create their music, and informally becoming familiar with the rudiments of music theory.

Having further discussions with colleagues facing the same challenges of integration of technology, becoming familiar with the various educational music programmes available and integrating it within the current curriculum to enhance the Primary Years Programme is essential for most teachers. Students are expected to read music, respond to music they listen and create music through composition, which connects with whether students have the correct musical abilities, aptitude and whether the learners are equipped with the necessary skills as highlighted through conversations with other music teachers working in International schools abroad. The purpose of the research paper is to highlight the PYP programme having and in-depth understanding of the transdisciplinary themes, and to encourage teachers to incorporate music technology into their Primary Years Programme for the music curriculum. When you think of skills necessary you assimilate aptitude and what abilities students have to demonstrate in order to perform simple tasks including responding to different types of music, creating music that is original incorporating technology, and the process involved of teachers implementing technology within the PYP programme.

The basic aim of research is often to learn to understand phenomena. Karma (2007, 82) noted:

A satisfactory combination of homogeneity on the one hand and real-world validity on the other could be reached by defining musical aptitude as the ability to hear patterns in sets of sounds, that is, auditory structuring ability.

In order to be able to compose students must have the musical ability, required skills and music aptitude to enable them to be creative and explore notational programmes? This posed the researchers to evaluate the various music aptitude tests available to date.

Musical aptitude tests have a history of over 85 years of refinement and development and most measure discrimination skills. The first test that was released was "The Seashore Measures of Musical Talents" in 1919. The Advanced Measures of Music Audiation Test (AMMA; Gordon 1989), the Bentley Test (BT; Bentley 1966), the Montreal Battery of Evaluation of Amusia (MBEA; Peretz et al. 2003), the Karma musical aptitude test (KMAT; Karma 1993) and the Distorted Tunes Test (DTT; Drayna et al 2001) all have their own specific criteria and ways of defining musical aptitude. The test developed by Bentley examines pitch discrimination ability, tonal memory, chord analysis and rhythmic memory (Milovanov 2009, 8). The Seashore test considers musicality to be an entity emerging from relatively independent subs kills organised according to the different sound parameters and cognitive demands (for example the pitch-discrimination accuracy of musical notes versus the memory process involved for the identification of different pitches). Finally, Karma (1993) developed a test that considers musicality to be more a general ability to structure sound in order cognitively (Milovanov 2009, 8-9).

Milovanov (2009, 7) further stated:

Terminological uncertainty can be sometimes confusing or even misleading in the field musicality research. Terms, such as musical capacity, musical talent, musical aptitude and musical ability are often discussed and used as synonymously with the term musicality, which they actually are not.

Milovanov (2009, 14) concluded that:

Musical aptitude and music skills have often been connected to other cognitive skills, such as linguistic skills, cognitive development, motor abilities, social skills, and the ability to express oneself. Several correlative studies have shown that, on average, participants with musical aptitude perform better in many fields.

The researchers agreed with Milovanov and other researchers (Trainor 2005; Trehub & Hannon 2006; Hannon & Trainor 2007) that most individuals acquire a basic musical competence through everyday exposure to music during their development. The term musicality can be vague and measuring musical aptitude can be problematic.

The statement above confirms that there has been a growth of several software and hardware to support the musical development of students. However; it also iterates how these can be used as an effective tool to support the developmental understanding of children. Since 1984 to 2016 there has been a variety of different music technology programs readily available on the market for students to use. Band-in-a-box was the first commercial program, which provided simulation, automated accompaniments for improvisation and creative exploration software. The first music theory/aural skills programs to incorporate options for learners and teachers focusing on the individual learners´ needs were Practica Musica. Finale and Sibelius was used for the creation of notations and compositions. Cubase and Performer are used for sequencing purposes allowing arrangers and composers to develop scores more effectively for commercial music, jingles, television advertisements, film and various arrangements for orchestra and small ensembles. The most interactive music theory programme was Music Ace I and II, which came along with guided instruction to support learners to understand music theory and develop their aural skills (through the visual stimulations of using animation) and several games. Smart Music provided accompaniment support for instrumentalist and vocalist and assisted with the teaching of music intonation and improving a learner´s sight-reading abilities. For recording purposes and digital audio recording software, Audacity and Sound Forge was used to record and process sound with a variety of special effects readily available for everyone to use. These allowed musicians and teachers to burn audio CD through using Pro Tools and Audition. It would be interesting to know how many teachers in International Schools use these programs as an effective tool to enhance their lessons? Furthermore, many teachers in International Schools use these programs as an effective tool to promote opportunities for learners to compose and be creative (Webster & Hickey 2006, 381 – 382). Getting the students to enhance these skills allows them to extend their knowledge and understanding of the music programmes available, and how to implement in each curriculum for International Schools.

III.   LITERATURE REVIEW

A gap existed to the literature available based on music technology, the use and implementation of using the various programmes to enhance learning with the PYP programme in the music curriculum. The emphasis of the literature to be reviewed will focus on the PYP programme, the theory of intelligence and musical abilities. This section will be divided into two subsections: the first will focus on the philosophy of the PYP programme especially within the Arts and Music and the second would cover the area of intelligence, and musical ability.

IV. THE PYP PROGRAMME

For those teachers not familiar with the Primary Years Programme, it is imperative to have a clear understanding of the purpose and outcomes. The philosophy of PYP is deeply held about the nature of international education. The mission statement of the International Baccalaureate programme stated:

The International Baccalaureate aims to develop inquiring, knowledgeable and caring young people who help to create a better and more peaceful word through intercultural understanding and respect. To this end the organization works with schools, government and international organizations to develop challenging programmes of international education and rigorous assessment (www.ibo.org/programmes/primary-years-programme).

The PYP programme encourages "International – mindedness" and allows learners from different backgrounds and experiences to join. What is an internationally minded person? It is someone who demonstrates the attributes of the IB learner profile. The basic aim of all IB Programmes is to develop internationally minded people, who recognizing their common humanity and share guardianship of the planet, to create a better and more peaceful world.

IB students strive towards learners to be:

The learner profile "Inquirers" focusses where they develop their natural curiosity, they acquire the skills necessary to conduct inquire and research and show independence in learning. They actively enjoy learning and this love of learning will be sustained throughout their lives

The learner profile "Knowledgeable" concentrates on the concepts, ideas and issues that have local and global significance. In doing so, they acquire in-depth knowledge and develop understanding across a broad and balanced range of disciplines.

The learner profile "Thinkers" allows students to exercise initiative in applying thinking skills critically and creatively to recognize and approach complex problems, and make reasoned, ethical decisions

The learner profile "Communicators" allows students to understand and express ideas and information confidently and creatively in more than one language and in a variety of modes of communication. They work effectively and willing in collaboration with others

The learner profile being "Principled" promotes integrity and honesty, with a strong sense of fairness, justice and respect for dignity of the individual, groups and communities. They take responsibility for their own actions and the consequences that accompany them

The learner profile being "Open-minded" allows students to understand and appreciate their own cultures and personal histories, and are open to the perspectives, values and traditions of other individuals and communities. They are accustomed to seeking and evaluating a range of points of view, and are willing to grow from the experience

The learner profile being "Caring" initiates and shows empathy, compassion and respect towards the needs and feelings of others. They have a personal commitment to service, and act to make a positive difference to the lives of others and to the environment

The learner profile being "Risk-takers" encourages each child to approach unfamiliar situations and uncertainty with courage and forethought and have the independence of spirits to explore new roles, ideas and strategies. They are brave and articulate in defending their beliefs

The learner profile being "Balanced" promotes the importance of intellectual, physical and emotional balance to achieve personal wellbeing for themselves and others

The learner profile being "Reflective" allows the students to think critically and give thoughtful consideration to their own learning and experience. They are able to access and understand their strength and limitations in order to support their learning and personal development (https://tecnosanfran.wikispaces.com/file/view/Making+the+PYP+Happen.pdf).

The PYP programme is designed for learners aged 3 to 12. It focuses on the development of the whole child as an independent inquirer, both in the classroom and in the real world outside. The whole framework is guided by six trans disciplinary themes of global significance, explore using knowledge and skills derived from all six subject areas, as well with trans disciplinary skills emphasising inquiry based learning (Ibid).

The six subject areas include language, mathematics, science, social sciences, the arts (music, art and drama), and personal, social, and physical education. Students have the opportunities to become inquiry-based learners developing their 21st century skills as suggested by Stauffer (2020). The focus is now emphasized on collaboration, being able to work cooperatively together in teams and groups, whilst developing their critical thinking skills through allowing them be informative with issues related within a global context.

V. UNDERSTANDING THE CONCEPT OF TRANDISCIPLINARY THEMES IN PYP

In most international schools´ teachers are expected to be familiar with the six trans disciplinary themes being explored through the PYP programme in Primary Years Phases. Having an understanding of the transdisciplinary themes can be highlighted in the following areas of exploration and inquiry-based learning in the classrooms in terms of the following:

Who we are, means the inquiry into the nature of the self-beliefs, values; person, mental, social and spiritual health; human relationships including families, friends, communities, cultures, rights and responsibilities and what it means to be human.

Where we are in place and time, can relate to the inquiry into orientation in place and time; personal histories, homes and journeys, explorations and migrations of humankind and the relationship between and the interconnectedness of individuals and civilizations from a local and global perspective

How we express ourselves, can be assimilated with the inquiry into the ways in which we discover and express ideas, feelings, nature, culture, beliefs and values, the ways in which we reflect on, extend and enjoy or creativity; our appreciation of the aesthetics

How the world works, relates completely into the inquiry into the natural world and its laws, the interaction between the natural world and human societies, how humans use their understanding

How we organize ourselves, connect with the inquiry into the interconnectedness of human-made systems and communities; the function and structure of organizations; societal decision-making; economic activities and their impact on humankind and the environment, and the last transdisciplinary theme covers,

Sharing the planet, are associated with the inquiry into rights and responsibilities in the struggle to share finite resources with other people and other living things, communities and the relationship within and between them; access to equal opportunities and lastly peace and conflict resolution (Ibid, 12). Using these transdisciplinary themes are important to have a clear understanding of the Primary Years Programme as outlined by IBO (2018).

VI. PYP WITHIN THE ARTS

It is common for the teachers to associate the arts programme including music, drama, and art within this facet of the Primary Years Programme as outlined by the IBO (2018). The arts programme plans are integral part of PYP as this is where the learners explore and construct a sense of self and develop and understanding of the world around them. The arts programme allows all learners with a wide range of opportunities to respond to their experiences and engage with historical and cultural perspectives. These allow all the learners to articulate their thoughts in new ways through a variety of media and technologies. Work in arts is thus a ways of conveying meaning, sharing cultures, developing one's sense of self and expanding knowledge. Opportunities are created for learners to reflect on aesthetic experience, to engage the imagination and explore was is uncertain (Ibid, 125).

VII. PYP WITHIN MUSIC PROGRAMME

Focussing on the music programme in International Schools, the emphasis will rely on how students respond to music being shared in the classroom. These can include music from China, and exploring the various string, woodwind, brass, and percussion instruments from Asia. In music all learners have the opportunity to communicate in ways that go beyond their oral language abilities. Music stimulates, soothes and comforts us; these allow us to communicate in a unique way. Learners are given opportunities to analyse sounds, compose, explore body music, harmonize, listen to various types of music, play instruments, sing, learn about notation, read music, complete song writing and record their own music. In creating, learners use their imagination and musical experience to organize sounds into forms that communicate their specific ideas or moods. In responding, learners are given the opportunity to respond to different genres of music from different cultures. Through exposing learners to wide range of varied repertoire of musical styles the can begin to construct an understanding of their environment, their structures and surrounds and begin to develop personal connections with them. The PYP music classroom provides a stimulating environment that challenges students, which is always well resourced with range of music

recordings, videos and instruments. Using technology and ICT can enhance learning in music allowing students to create, compose and record their own work, evaluate, observe, improve and share music through use of music files and CDs (Ibid, 27).

VIII.   INTELLIGENCE AND MUSICAL ABILITY

To be able to show aptitude in the classrooms, most students will show an awareness for music through sharing their ideas, focussing on music theory, understanding the elements of music and being able to partake in lessons actively through creating their own music by composing. Utilizing technology to record sounds, and share their compositions with their peers where they can through peer assessment evaluates each other's work. When one refers to the word "intelligence" one evaluates the perceptions and interpretations of various theories. Howard Gardner (1999a, 180-181) reflects on multiple intelligences and the impact on thinking and practice in education in the USA. He suggested:

I want my children to understand the world, but not just because the world is fascinating and the human mind is curious. I want them to understand it so that they will be positioned to make it a better place. Knowledge is not the same as morality, but we need to understand if we are to avoid past mistakes and move in productive directions.

The researchers agreed with the above statement. Gardner's framework (1999b, 41-43) includes linguistic intelligence, logical-mathematical intelligence, musical intelligence, bodily-kinaesthetic intelligences, spatial intelligence, interpersonal intelligence and finally intrapersonal intelligences. Gardner (1999b, 44-45) argues:

The theory is an account of human cognition in its fullness. The intelligences provided 'a new definition of human nature, cognitively speaking'. Human beings are organisms who possess a basic set of intelligences … People have a unique blend of intelligences. Howard Gardner argues that the big challenge facing the deployment of human resources 'is how to best take advantage of the uniqueness conferred on us as a species exhibiting several intelligences'.

Reynolds and Hyun (2004, 18) have researched teachers" understanding of musical aptitude. They examined how teachers select, suspend, check, regroup and transform their understanding when measuring the overall musical aptitude of their students with a focus on how to obtain standardized musical aptitude test scores from the participants. The study involved ten classroom teachers from South Korea and the USA who elaborated on their experiences with a final individual interview.

IX.   AIMS

The purpose of the action research project was to get the opinions of several music teachers in a particular part of Western Africa to answer questions related to the use of information technology within their PYP music lessons. This gave an overall idea of how teachers were keen on utilizing the software and programs that were readily available to them to use. The researchers conducted a pilot study where 60 international teachers participated including West Africa in this study that was conducted over three months. The field research was concluded over 12 weeks and participants completed online questionnaires that they had to complete. The data was then analysed accordingly and discussed in music depth to answer the research questions pertaining, what are the challenges the teachers are facing in these International Schools, where some have equal training with the use of technology, especially when it comes to creating music and composition? Which music programmes are these teachers using to their advantage? Are most user friendly and easy accessible?

X.   RESEARCH METHODOLOGY

Through means of action research this study was predominantly empirical in nature as the researcher relied on the information provided through the questionnaires, interviews and observations to explore and answer the research questions posed. The research questions included, what were the challenges the teachers are facing in these International Schools, where some have equal training with the use of technology, especially when it comes to creating music and composition? Which music programmes are these teachers using to their advantage? Are most user friendly and easy accessible?

The research design qualitative study as outlined by Mouton (2002) with an emphasis on action research. The participants were from different parts of Africa and teaching in International Schools for several years, with a majority of females in comparison to males teaching a variety of subjects including drama, art, visual art and music. Action research involved their classrooms, most of the 60 participants had some training in using technology and familiar with the programmes available to integrate into the PYP programme. It allowed opportunities for everyone to share their concerns, challenges and fears integrating and implementing technology into their curriculums.

The research design involved two phases, the first phase included questionnaires related to their education, skills, and awareness of music technology programmes, the second phase included an in-depth interview with all the teachers in the

sample of 60 participating. The researcher was able to answer the research questions pertaining to question that was posed initially at the beginning of this research project.

The majority of the randomly selected 60 participants were actively engaged in their classrooms, where they taught music as part of the arts programme. They were randomly selected from the different cluster groups that regular met, discussed, shared information relating to their teaching methodologies and instructional approaches to enhance the PYP programmes in their International Schools. Through existing forums, the author was able to connect with them, and keep in regular contact and create an arts programme group for PYP in International Schools in Africa, these included South Africa, West Africa, and East Africa.

Over a period of 12 weeks the author was able to regularly communicate with them through platforms including Zoom, Microsoft teams, and Google Meets. The majority of teachers had vast differences in teaching experience, some had more than 20 years' experience in comparison to new teachers that recently graduated with a few years of classroom experiences in the International schools. The fear of integrating music technology was always the priority of the discussions in the forums, and finding a balance of promoting workshops for those not familiar with existing music programmes available to enhance their lessons and promote 21st century skills as expected suggested and outlined by the IBO (2018).

Catering for those teachers had to be concluded through evaluating their current practices and finding solutions to making those educators feel more comfortable integrating and implementing technology positively to enhance their lessons. However, the evaluation included research methods that are qualitative as described by Mouton (2001, 196). The test design had three phases: the first gathered data from a total sample of 60 teachers that was either teaching music or arts within the PYP curriculum within an International School Setting. The second and last phase included interviews, which was recorded by al 60 teachers. The first phase sample collected more in-depth data according to the qualitative method of research. Of the sample of the second phase, 100% included interviews with all 60 teachers. The data collection was completed with detailed questionnaires based on questions relating to the use of Garage Band and music technology. Data was analysed under the sections age, gender, qualifications, and their previous teaching experience with technology, PYP and music abilities.

XI.   FINDINGS

The data revealed that teachers were eager and open minded to learn new concepts involving the use of technology and several programs into their classroom, which was significant to explore through the PYP music programme. Answering the research questions, what were the challenges the teachers are facing in these International Schools, where some have equal training with the use of technology, especially when it comes to creating music and composition? Which music programmes are these teachers using to their advantage? Are most user friendly and easy accessible? The majority of the teachers of the respondents participating in this research of the 60 students felt challenged by integrating and implementing the use of various music programmes into their PYP programmes. Most teachers were comfortable using muse score in comparison to note flight, and some had access to garage band, where Apple computers where available in their music suites. Some of them were very creative and created their own compositions, which confirms that technology and using Band lab, Sound trap and Garage Band can enhance the musical abilities and compositional skills of learners. The analysis of the results (see figure 1) revealed that predominantly there was more Female (80%) then Male (20%) teaching in International Schools in West Africa.
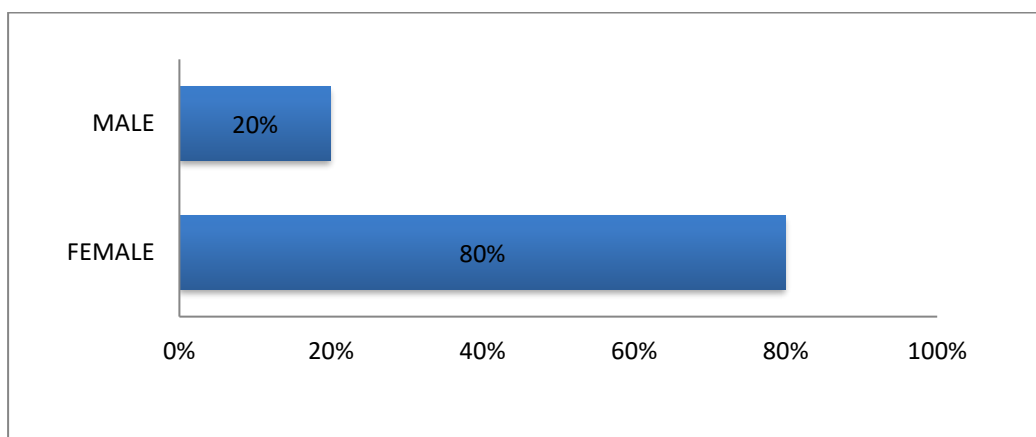

Figure 1: Gender Studies (n=60)

Their previous teaching experience varied from each of the four category years (see figure 2) with 56% of teachers having 6 – 10 Years' experience, with 40% having 2 – 5 Years of experience, 10% having 11 – 15 Years of experience and 2 % having 16 – 20 years' experience and lastly 2% having 21 – 30 Years of teaching experience within International School settings.
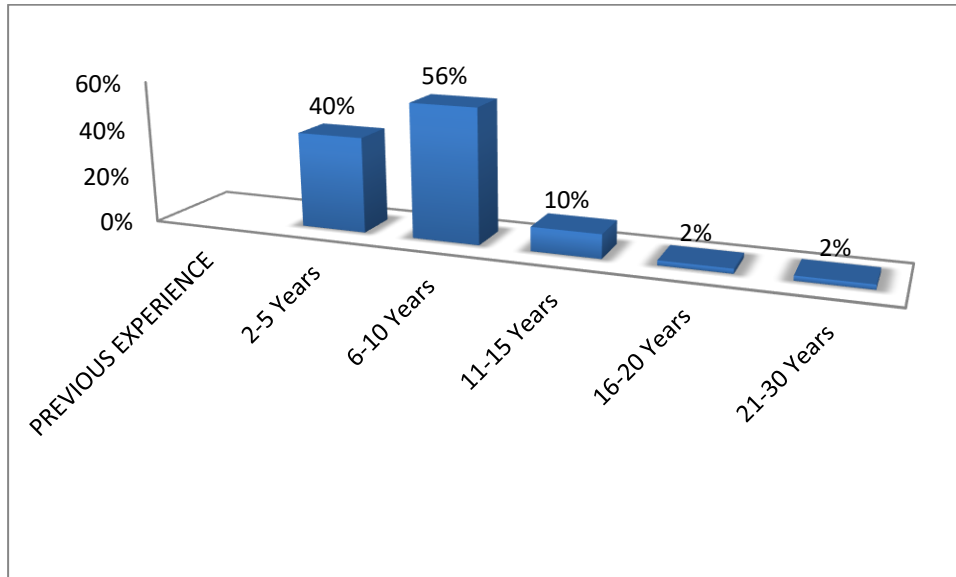
**Figure 2: Years of Previous (Teaching) Experience (n=60)**

The following results revealed that the teachers preferred using the following notation programmes integrated into their PYP programme at school as part of the composition aspect of the curriculum (see figure 3) that 70% of the teacher preferred using the program Muse score into their music curriculum, 15 % of the teachers used the program Sibelius, 10 % of the teachers used Note flight and 5 % of the teachers used Finale regularly within their music curriculum.
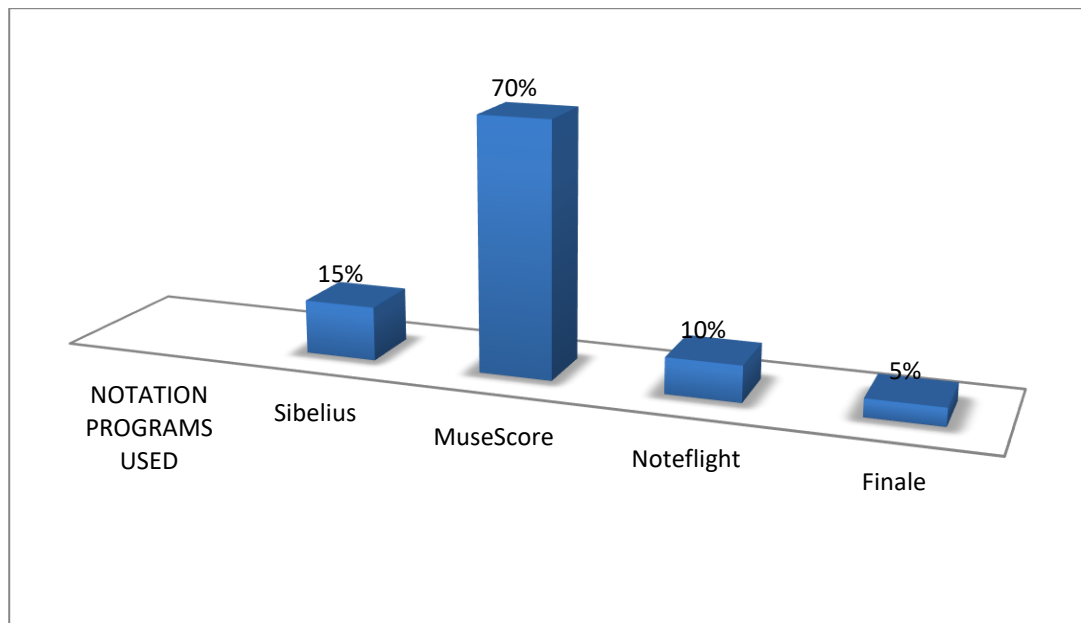
Figure 3: Notation Programs Used within the PYP Curriculum (n=60)

The programs that were most frequently used (see figure 4) when composing was Band lab being in the lead by 60%, 30% of the teachers used Garage Band, and 10% was using Sound trap on their computers.
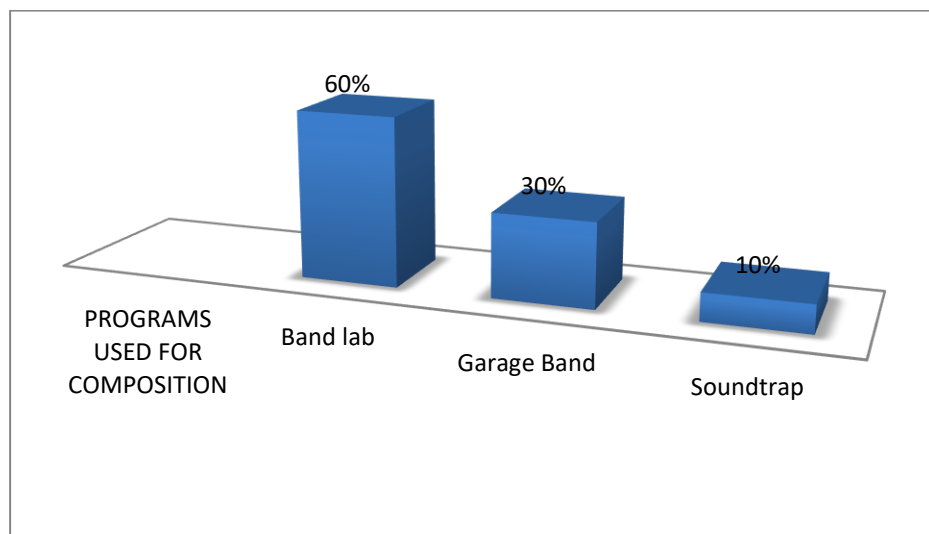
Figure 4: Programs Used for Composition within PYP Curriculum (n=60)

XII. CONCLUSION

The research that was conducted confirmed that using technology could effectively enhance your music curriculum when you focus on the PYP ideology. The teachers felt challenged by the idea or expectation of implementing technology into their music programmes as part of the PYP programme. Most teachers were using muse score as they could download this notational programme for free online and share with their students, who could work leisurely in their own time with their compositions. The overall consensus was that teachers felt comfortable using muse score as they found easy accessible and more user-friendly in comparison with note flight.

One of the main aims of the IB curriculum is to foster an appreciation for research through becoming a natural inquirer. For students to engage on a much deeper intellectual level and lastly making connections with other disciplines within a Global context. It is important to allow many opportunities for students to excel. Most teacher which had experience and new to the teaching profession enjoyed exploring technology and trying to allow their students to flourish through means of composition. This allowed them to present and demonstrate their understanding of the various genres, how bass lines work? How to analyse music and make comparisons for example comparing motives from Baroque period where they used ornamentations with Syncopation in Jazz Music.

The PYP programme allowed teachers to incorporate music technology into the curriculum, which meant that learners were being creative and exploring different elements of music through using Band lab and Garage Band. Making use of differentiation in the classrooms really benefit the students for the learning experience. Some learners were more advanced and familiar with the program then others. There are many advantages using Ban Lab and Garage Band in your music curriculum for PYP. Collaborative projects amongst schools will allow the students to show case their compositions, learn from each other, give constructive feedback and allow opportunities for them to excel and reflect on their learning. Hopefully this research will enlighten other music scholars on the PYP Programme, and the necessity of implementing and integrating technology into their programmes to enhance learning opportunities for students and allow teachers to grow and learn new skills to promote International Mindedness that promotes 21st century skills.

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