EdTRE Model: Project-based Learning for New Generation Music Teachers

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Abstract

Entrepreneurial skills are gaining prominence in higher education [3], extending beyond the business domain to diverse fields such as music education. Music teachers, in particular, are diversifying their income streams through online courses, private studios, and music-related projects. This evolution underscores the importance of aligning music education curricula with the changing needs of stakeholders. It reflects the dynamic nature of education and the integration of entrepreneurial thinking. As a lecturer at the Faculty of Music, Silpakorn University, I am responsible for enhancing students' professional skills to support their careers after graduation. Given the faculty's emphasis on entrepreneurial skills and the high number of graduates entering music teaching, I developed the EdTRE model. This framework incorporates Project-based Learning (PBL) principles - an educational approach accentuating hands-on experiences and community engagement - to equip graduates with essential skills in music teaching, entrepreneurship, and music performance [1], [2]. Therefore, this academic article aims to introduce the EdTRE model, which consists of four distinct phases. The first phase, Ed (Edupreneur Knowledge), focuses on building a comprehensive understanding of both music education and entrepreneurial education, along with the practical application of this knowledge. In the second phase, T (Training as Experiences), students advance the concepts from the Ed phase by developing and implementing project proposals. The third phase, R (Reflection from mentors), plays a critical role in refining students' products and services. Feedback from mentors provides valuable perspectives and suggestions, enriching the learning experiences. Finally, the fourth phase, E (Engaging with community) brings project outputs into the public domain. The phase emphasizes creating innovative products and services designed to penetrate the mainstream business market.

Keywords: *project-based learning, new generation, music teachers*

1. Background of the Study

Music is often described as one of the most enduring and universal forms of art that has been an integral part of human life throughout history. Many studies have shown that music in terms of well-being are diverse and can have positive impact on various aspects of individual life such as cognitive function, social connection, and mood regulation [14]. Therefore, music instruction, both formal and informal, is indeed widespread and has been a part of human culture for centuries. School, music academies, and private lesson studios seek qualified music teachers to meet the demand for music instruction.

Nowadays, the trends in music industry market are changing rapidly. Music teachers whether in public and private schools, must explain their skills beyond traditional classroom teaching. They rely on multiple income sources including online music courses, private studios, and various music-related project. This highlights the need of music teachers to adjust their curriculum to align with the needs of stakeholders. This adaptation involves the ability to forecast trends in music education to encourage student enrollment. Achieving this goal necessitates creative thinking and innovative educational approaches, as well as an analysis of the communication channels of the consumer. Additionally, this requires financial management skills to maximize the benefits. Having entrepreneurial skills supports these abilities.

Entrepreneurial skills have been receiving more attention in the area of higher education, which is evident from the increasing of academic articles and research [3], [6], [11],[12]. These skills serve as vital mechanism in enabling students to adapt to the music job market and create opportunities through starting a business. This is due to the fact that these skills foster competencies in creativity, marketing, risk management, leadership, and communication which are valuable not only in business but also in many aspects of life. Therefore, organization or institutes specializing in music teacher training should promote preservice music teachers' abilities in research and innovation in their own fields to increase their competitiveness. This involves promoting active learning, teamwork for goal

achievement, and employing research techniques to enhance inquiry skills [4], [5], [10]. These approaches align with the effective educational approach known as project-based learning (PBL).
PBL is the educational approach that emphasizes promoting students to conduct projects on topics of their interest using research method to find answers. Learning through projects enhances teamwork skill, higher-order thinking skills, including self-directed learning. At the end of project, students are required to present their projects with the public to benefit society [2]. As a lecturer at the Faculty of Music, Silpakorn University, my role involves fostering students' professional skills to support their career development post-graduation. Given the faculty's focus on entrepreneurship and the substantial number of graduates entering music teaching, I am dedicated to equipping them with the expertise needed for music teaching, entrepreneurship, and music performance. Hence, this academic article focuses on synthesizing the ideas of entrepreneurial competencies for music teachers and PBL, to promote entrepreneurial skills of preservice music teachers. This benefits organizations and individuals involved in training music teacher by introducing them to these important life skills which go beyond music teaching and are valuable for their future careers.

2. Entrepreneurial Competencies for Music Teachers

The purpose of education extends beyond the acquisition of information; it aims to cultivate students who can attain predefined learning outcomes, aligning with the expectations of various stakeholders. Entrepreneurial education, similarly, goes beyond the mere operation of business. It is designed to nurture entrepreneurs with a comprehensive set of competencies, encompassing knowledge, skills, and attitudes. This approach aims to prepare individuals not only to manage enterprises but also to embody the qualities of innovation, resilience, and adaptability.
In the field of education, entrepreneurial competencies have gained more interest because of enhancing creative thinking as well as providing the opportunities and the risk of business. The educational system, therefore, should incorporate entrepreneur skills and experiences for all levels of students. As a person conducting business by innovation and services, entrepreneur is qualified the potential for profit, and accepting the risks associated with future business endeavors. Teachers promoting entrepreneur learning are essential to identify the competencies of entrepreneurs.
Lackéus, an entrepreneurial education researcher, proposed the entrepreneurial competencies divided into three domains including knowledge, skills, and attitudes [7]. These three domains exhibit the gradual increase from non-cognitive competencies to cognitive competencies. Teaching and assessing non-cognitive competencies, like proactiveness and perseverance, can be challenging because they often involve learning through practical experiences. On the other hand, teaching and testing cognitive competencies are usually easier. The knowledge domain encompasses declarative knowledge related to entrepreneurship, mental models, and self-insight. Skills, on the other hand, involve the practical application of knowledge in real situations, such as conducting market research, creating business plans, and navigating uncertainty. Attitudes play a crucial role in supporting knowledge and skills, guiding students towards achieving their set goals. While these competencies are categorized separately, their interconnected nature forms a cohesive framework for fostering successful entrepreneurs. Building on Lackéus's research, Olusiji have extended the concept of teacherpreneurial competencies. In their findings, they introduced 30 competencies, with a notable expansion into the realm of online teaching. This includes competencies such as online active teaching, online classroom management, online policy enforcement, as well as community and netiquette. These additions reflect the evolving landscape of education, highlighting the essential skills teachers need to navigate the digital era [8].

3. Project-based Learning (PBL)

Learning occurs when students actively engage and have the opportunity to encounter diverse experiences. Teachers act as facilitators, creating learning environment, as the human brain naturally learns best when the information is meaningful to students. This idea is closely tied to project-based learning (PBL), which is firmly grounded in constructivist theory [2]. According to the constructivist framework, learners are tasked with the responsibility of actively constructing their own knowledge. Teachers serve as guides rather than authorities. The theory emphasizes that learning is a dynamic process that individuals use their existing knowledge to develop a deeper understanding of the world. Driven by real world problems, PBL helps students to connect between knowledge and external environment to deeply analyze the information until getting clear answers. Often, interdisciplinary learning is implemented such as combining physical sciences and social sciences. This means that

teachers should prepare learning substance for implementing projects. At the end of project, presentation the findings and product to public is required [1].

Due to entrepreneurial education mainly focuses on experiential learning, PBL plays a main role for enhancing students' entrepreneurial competency [4]. Regarding to this article, The learning process of PBL are reviewed and categorized [9], [13], [15]. The learning is divided into five stages: searching for project ideas, identifying project objectives, developing project plan, implementing project, mentoring project, and presenting project results.

1. Searching for project ideas: The primary objective of the initial stage is to facilitate idea generation among students within the context of academic subjects encompassing entrepreneurship, sustainablility, and circular-economy. Given the limited experiential background, teachers are tasked with nurturing attributes associated with critical thinking and scientific inquiry. Strategies such as field trip, collaborative idea exchanges, and systematic trial-and-error approaches are implemented to inspire innovation by exposing students to diverse experiences. The formulation of a compelling driving question emerges as a pivotal component in stimulation ideation. Well-constructed questions serve as catalysts, prompting thoughtful consideration and idea development. Conversely, the absence of appropriately formulated questions may engender confusion and despondency among students. This underscores the integral relationship between incisive questioning and the retrieval of substantive ideas.
2. Developing project plan: Following the ideation, the project planning process unfolds. This involves the development of a comprehensive project plan, delineating clear objectives, creating business plan and strategies to create product and services meeting consumers' needs, forecasting potential outcomes, planning financial and human resources, and establishing time-bound parameters. The articulation of precise objectives is pivotal in anticipating expected project outcomes. Educators are encouraged to guide students in evaluating feasibility and establishing assumptions during the phase.
3. Implementing project: In this stage, the project plan developed in the previous phase take shape. Students will implement a business plan to establish startups in their respective fields, involving the development of products and services. Teachers provide support by offering learning materials. Establishing connections with entrepreneurs or external experts actively engaged in business during this phase assists students in confronting real-world business scenarios. Furthermore, students must acquire skills in dealing with uncertainty and managing business risks while discovering effective problem-solving strategies. These situations contribute to their understanding of competitive advantage.
4. Mentoring project progress: The phase of mentoring project progress is designed to track the advancement of the project and offer guidance in the event of unresolved issues during the process. Mentoring, however, should not be limited to teachers alone. Teachers should actively involve entrepreneurs who are actively engaged in the market industry matching students' interest. This collaborative approach allows these entrepreneurs to share their insight and feedback, providing valuable data that helps student stay updated on trends and understands consumer needs in their daily activities. This multifaceted mentoring strategy enhances the learning experience for students.
5. Presenting project results: The Final phase of entrepreneurial education project results involves the presentation of prototypes. Students construct prototypes and showcase them to the public at the project's conclusion. This serves as inspiration for individuals aspiring to their own ventures. In this phase, experts can provide beneficial recommendations to presenters for the future development and enhancement of their products. During the presentation, students cannot work in isolation; they must collaborate with individuals both within and outside the college. Those with adept planning skills will apply marketing strategies, create videos for their prototypes, and initiate crowdfunding campaigns. This collaborative effort and strategic approach contribute to the overall success of their entrepreneurial endeavors.

4. EdTRE Model: Project-based Learning for New Generation Music Teachers

EdTRE model is an educational model focusing on project-based learning as an approach for preparing and developing the skills and knowledge of the next generation of music teachers. This model emphasizes learning by doing, practical experiences and collaborative projects to enhance music teachers and music educators acquire the competencies needed to elevate their profession. It involves innovation teaching methods and strategies promoting modern music education trend. The model consists of four phases as follows:

Phase 1: Ed (Edupreneur Knowledge)

This phase aims to foster declarative knowledge and intellectual skills. Declarative knowledge encompasses understanding both music education and entrepreneurial education, while intellectual skills reinforce the practical application of this knowledge. Cognition and attitude are integrated into the learning process. This phase is divided into two stages.

1. Searching for ideas: The first stage is quite the most difficult stage for the project beginners in order to lacking of experiences. Students should be cultivated the characteristics of thinkers. This stage directs to enhance self-competencies based on the academic subject relating to music education and entrepreneurial education such as the innovation of music education, Entrepreneurship, and marketing. Interactive lecture and discussion with teachers and peer groups can fulfill the students' ideas. This stage begins with the introducing entrepreneurial opportunities including developing ideas before reaching the next step called recognizing opportunities.
2. Recognizing Opportunities: After receiving the ideas, identifying favorable circumstances or situations leading to positive outcomes is needed. This skill helps to recognize the importance of diverse contexts. It involves keen observation, open-minded perspective and proactive efforts to uncover potential paths for growth, enhancement, or success.

Phase 2: T (Training as Experiences)

Learning by doing and experiential learning are the key aspects of entrepreneurial education. Once students acquire academic knowledge and explore ideas, the next crucial step is translating those ideas into practical applications in the real world. Hands-on training and experiential learning play a vital role in cultivating this practical focus.

1. Developing project proposal: This stage extends the project ideas from the first phase. Developing project proposal covers specifying project objectives, forecasting the responses, planning the processes of acquiring information including resources. Students have to apply edupreneur knowledge they have gained to be applicable. In addition, students have to identify the products or services to meet the consumers' needs such as developing sandbox approach for music program, creating online music course. Therefore, evaluating feasibility of the products and services should be considered.
2. Implementing a project: The projects are actualized and students become startups in their fields. Due to a project cannot implemented by one person, Team work is therefore vital for this stage. Learning through experiences enhance students to recognize context-specific and find the solutions to solve the problems. Students learn problems from real case studies. Mostly, projects have to connect with external organization or customers to propose products and services they have created. Finding the customers promotes networking, negotiation, resourcefulness, and communication skills. Students attend music education industry events.

Phase 3: R (Reflection from Mentors)

Monitoring project progress: Besides teachers as mentors for project-based learning, entrepreneurs who have operated business in music education or related area should be invited as mentors. Mentors who are outsiders can give feedback and music education market trends to preservice music teachers. Students can receive diverse feedback and suggestions in many corners beyond teachers who usually teach. However, reflection from mentors are not to judge the products from projects but to improve the products and services they have create to meet the needs of music education industry.

Phase 4: E (Engaging with Community)

Disseminating the project results: One of the key objectives of the project is the dissemination of project outputs to the public. The result obtained from the project should be music innovation products and services in a new format entering the mainstream business market. Additionally, presenters should share knowledge or skills gained from the beginning of the project covering strategic planning, marketing strategies, customer outreach, financial planning, as well as addressing risks and problem-solving strategies until achieving success. Sharing knowledge to society serves as inspiration for those who looking for starting new projects.

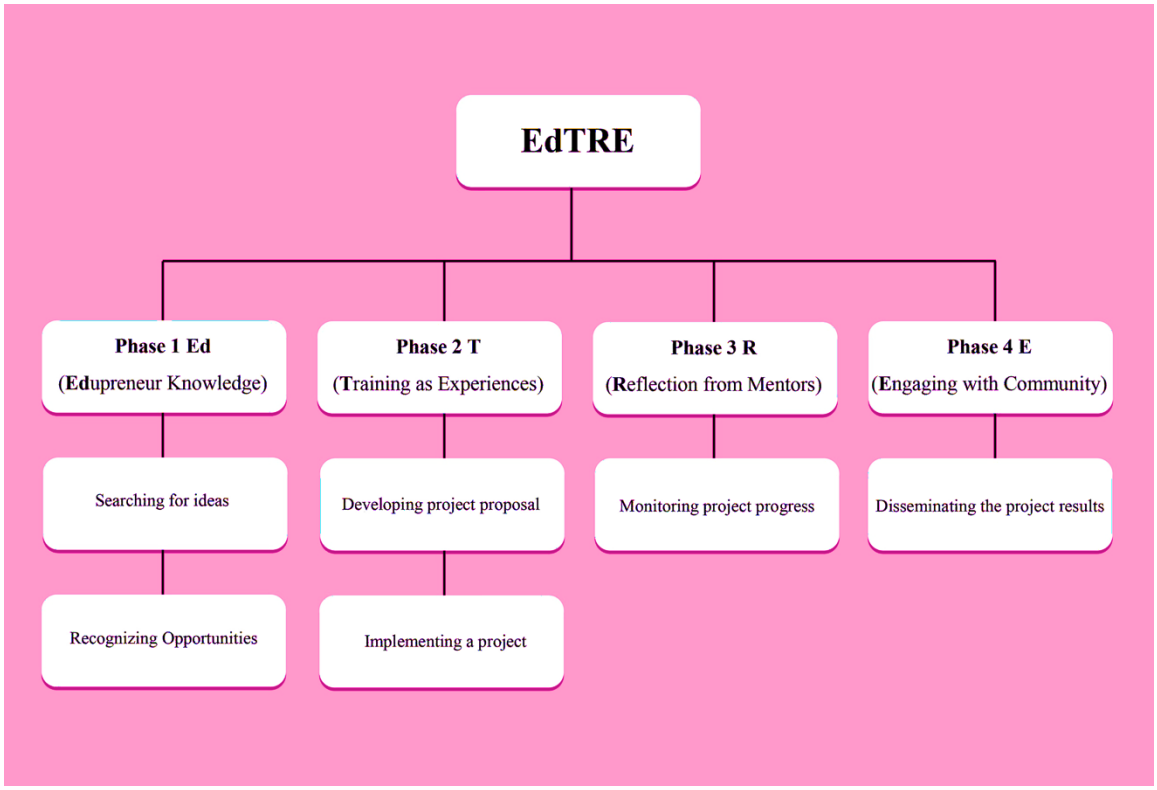

Fig. 1. EdTRE model

5. Discussion

EdTRE model is synthesized as a proposed model to raise the profession of new generation music teachers. Time changes rapidly and music education trends have to adjust align with music education market trends. EdTRE model comprises four phases: Ed (Edupreneur), T (Training as experiences), R (Reflection from mentors), and E (Engaging with community). This model runs from the introduction of the knowledge of edupreneur covering music education and entrepreneurial education followed by applying knowledge in real situations based on project planning until creating their products and services as well as disseminate to society. The mentioned model is synthesized within the context of pre-service music teachers who transition into new generation music teachers capable of applying the music teachers and entrepreneurial competencies acquired from university. These future music teachers are not only equipped with teaching skills in the music classroom but are also nurtured with entrepreneurial skills relevant to the contemporary era surrounded by innovation.

Implementing EdTRE model, especially during the searching for ideas phase, may take a considerable amount of time. Students in their initial years of undergraduate studies may have recently competed high school, not yet delving into content related to entrepreneurship and music education. Their coursework load might also be substantial. During certain periods, teachers may need to guide students and potentially arrange experiential learning opportunities, such as site visits or mentoring sessions with experienced individuals. For students in their third and fourth years, the focus shift towards practical training and learning from experiences, with fewer academic courses. This shift allows students to gain project experience and plan for their careers post-graduation more efficiently. The earlier exposure to project planning and strategic thinking results in quicker and more strategic project development. Consequently, students develop intellectual and emotional intelligence, enhancing their qualifications significantly. This contributes to more seamless strategic planning, business opportunity identification, effective management of uncertain situations, and improved coordination and collaboration with relevant stakeholders.

REFERENCES

[1] Academic Senate meeting. (2017). *Guideline on project-based learning approach*. University of Rwanda.
[2] Carter, S. (2016). *Traditional VS project-based learning: The effects on student performance and motivation in honors level mathematics courses* [Doctoral dissertation]. Digitalcommons of Liberty University. https://digitalcommons.liberty.edu/doctoral/1259/
[3] Demirbatir, R.E. (2021). Investigating entrepreneurship levels of pre-service music teachers. *Journal of Education and Learning (EduLearn), 15*(3), 352-359. http://doi.org/10.11591/edulearn.v15i3.20298
[4] European Commission. (2014). *Entrepreneurship education: A guide for educators.* European Union.
[5] European Commission. (2021). *A guide to fostering entrepreneurship education: Five key actions towards a digital, green and resilient Europe.* European Union.
[6] Kyndt, E. & Baert, H. (2015). Entrepreneurial competencies: Assessment and predictive value for entrepreneurship. *Journal of Vocational Behavior*, *90,* 13-25. http://doi.org/10.1016/j.jvb.2015.07.002
[7] Lackéus, M. (2015). *Entrepreneurship in education: what, why, when, how.* OECD.
[8] Olusiji, L. A., Malik, R., & Alarcon, C.M. (2020). A conceptual research model for investigating the impact of online teacherpreneurship education on students' teacherpreneurial competencies and intentions in preservice teacher education. *International Journal of Learning, Teaching and Educational Research 19*(22). 163-189. https://doi.org/10.26803/ijlter.19.12.9
[9] Santoso, R., Priyanto, S., Junaedi, I., Santoso, D., & Sunaryanto, L. (2023). Project-based entrepreneurial learning (PBEL): A blended model for startup creations at higher education institutions. *Journal of Innovation and Entrepreneurship 12*. 1-22. https://doi.org/10.1186/s13731-023-00276-1
[10] Sofyan, H. Efendi, A. (2017). *Implementation of teacherpreneurship on teachers at vocational high school*. In Khairudin, Sukirno, & Sutikno, T (Eds.). *1st International Conference on Technology and Vocational Teachers (ICTVT 2017). Advances in Social science, education and humanity research* (pp. 229-236). https://www.atlantis-press.com/proceedings/ictvt-17/25884519. http://doi.org/ 10.2991/ictvt-17.2017.39
[11] Susanni, P.G. (2019). *Fostering entrepreneurship for music education: How to design effective curricula* [Doctoral dissertation]. Yasar University. https://dspace.yasar.edu.tr/bitstream/handle/20.500.12742/11433/TEZ-0693.pdf?sequence=1
[12] Toscher, B. (2019). Entrepreneurial learning in arts entrepreneurship education: A conceptual framework. *Artivate, 8*(1), 3-22. http://doi.org/10.1353/artv.2019.0003
[13] Vollmar, B., & Euler, M. (2023). The incorporated approach: From project-based learning in entrepreneurship education to project-based learning as entrepreneurship education in German schools. In J.H. Block, J.Halberstadt, N. Högsdal, A. Kuckertz, & H. Neergaard (Eds.), *Progress in entrepreneurship education and training: New methods, tools, and lessons learned from practice* (pp. 171-181). Springer.
[14] Welch, G.F., Biasutti, M., MacRitchie, J., McPherson, G.E., & Himonides, E. (2020) Editorial. The impact of music on human development and well-being. *Frontiers in Psychology, 11*, 1-4. http://doi.org/ 10.3389/fpsyg.2020.01246
[15] Zhang L., & Ma Y. (2023). A Study of the impact of project-based learning on student learning effects: a meta-analysis study. *Frontiers in Psychology 14.* https://doi.org/10.3389/fpsyg.2023.1202728