M.U.S.E.

MUSIC UNITES THROUGH SOCIAL EQUITY

CREATIVE MUSIC TECHNOLOGY WORKSHOPS TOOLKIT

Prepared by

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Who is this Toolkit intended for?

This Toolkit is addressed to musicians, music teachers, general education teachers and non-formal music educators working with children from disadvantaged socioeconomic backgrounds and children with a migrant background. Our belief is that this project can have a large multiplier effect and that students facing similar hardships can benefit from participating in these workshops.

The Project

This toolkit has been developed under the project "M.U.S.E.: Music Unites through Social Equity", funded by the Preparatory Action 'Music Moves Europe' by the European Union. The project offers students with less opportunities the experience to engage with learning music, participate in a choir and perform together with a symphony orchestra. Moreover, toolkits on five different approaches of using non-formal methodologies for music education were produced, offering a valuable resource for professional development to teachers working with students with less opportunities, and especially students of migrant and refugee background. The toolkits were produced by music educators specialized in non-formal music education and who are experienced in working with students who have less opportunities. The educators who created the toolkits delivered workshops that reached hundreds of students at schools with migrant, refugee and disadvantaged student populations.

Introducing the Project's Toolkits

The result of our project is five individual Toolkits available as single units or as part of a complete volume that includes them all. The toolkits are available to download from our website: www.sistemacyprus.com/resources/.

- M.U.S.E.: Community Music Workshops Toolkit
- M.U.S.E.: Upcycling Music Band Workshops Toolkit
- M.U.S.E.: Songwriting Workshops Toolkit
- M.U.S.E.: Creative Music Technology Workshops Toolkit
- M.U.S.E.: World Music Choir Workshops Toolkit

M.U.S.E.: Community Music Workshops Toolkit

Community music is a powerful tool for promoting the inclusion and integration of migrants and refugees. The activities presented in this toolkit are focused on Songs in circle activities, songs with movement, body percussion activities, and music with movement activities fostering creativity. The aim of this toolkit is to present activities on creating a safe environment, encouragement of creativity which is important for a solid self-development of every child.

M.U.S.E.: Upcycling Music Band Workshops Toolkit

Upcycling is the reuse of objects (such as: buckets, barrels, shakers, plastic pipes (tuned), fire extinguishers, plastic bottles, and tins) in order to create musical instruments and empower the idea that music can be everywhere without the worries about the technical and theoretical level you may reach prior to joining a band. The aim of this toolkit is to present various upcycled musical instruments and activities that form an upcycling music band.

M.U.S.E.: Songwriting Workshops Toolkit

Songwriting is a fun and creative activity that can develop the personal development of a child. The first aim of the songwriting approach, presented in this toolkit, is to create a fun, inclusive, equal, safe, and non-judgmental environment. Furthermore, the process of songwriting entails the element of creativity. The topic of the song can be funny for younger ages and more serious for older ages. This toolkit follows a 'step by step' method in songwriting.

M.U.S.E.: Creative Music Technology Workshops Toolkit

The Creative Music Technology Workshops Toolkit is designed for children of ages 6-14. This toolkit presents an introduction into Music Technology tools (free & online applications) and uses notions of beatboxing, looping and sampling. The aim of this toolkit is to utilise free and online tools in order to experiment with rhythmic composition techniques. The methodology is based on a series of exercises (i.e. imitation, call-and-response, developments of rhythmic motives) always working in tandem with technology and ICT tools.

M.U.S.E.: World Music Choir Workshops Toolkit

The choir lesson in many schools usually offers small-scale goals, whereas the inspiration and the sense of creativity of working with others towards a grand concert, is minimal. The choir approach presented in this toolkit is based on the foundation of El Sistema's principles. This toolkit focuses on the children's experience of singing songs from a variety of cultures while giving the space to interact, relate and learn from each other.

Creative Music Technology: Description of Approach

'Technology is just a tool. In terms of getting the kids working together and motivating them, the teacher is most important.'

Bill Gates[1]

Digital Era and the advent of the internet has revolutionized and paved a new way in music making. Countless, free, cross-platform and browser-based tools are opening up ways where children can *play*, experiment, create and express themselves with digital music-making instruments (software and applications). The Digital Revolution has freed teachers and enables students to see the world differently through the use of such tools, in a way that is "transformational" as in the words of teacher and author George Couros.

Music technology and participatory, digital media literally bring people together as now *users* can collaborate in real time in producing something original with another person from a different place. This is due to the phenomenon of modern *prosumers*, where users are both consuming and consuming texts through digital media. On this note, musicians live in a "global village"[2], where geographical boundaries are no longer an obstacle in creating music; rather distant collaborations create more diverse projects influenced by different cultural backgrounds, thus creating "cultural syncretism" as known in contemporary media studies.

Creative music technology research, yet a discipline still in its infancy, has shown how children can use technology as a means for learning (Tech Ed)[3]. Recent approaches to knowledge and learning have developed from STEM methodologies to STEAM and not to STREAM, where *reading* and *research* are key elements in education. Hence, these activities will help students be prepared in music technology-related fields: they find their music style, they provide them

[1] Bill Gates interview in the Independent on Sunday,12th October 1997.
[2] McLuhan, M., Gordon, W. T., Lamberti, E., & Scheffel-Dunand, D. (2011). The Gutenberg galaxy: The making of typographic man. University of Toronto Press.
[3] Official website for the Office of Educational Technology: https://tech.ed.gov/

with creative skills for making and performing innovative music, while also promoting critical thinking skills. Additionally, Tech Ed (Educational Technology) will help participants to develop, most importantly, high digital literacy skills as this is what defines them as digital natives and at the same time what separates them from their teachers, who are the digital immigrants.[4]

As in other lessons provided in this series of toolkits, it is once more our suggestion that music teachers can include creative music-technology-activities-as-games in their teaching practices in ways that could offer a relaxing break, or help teachers delivering their lessons creatively and in an interdisciplinary way. As Mourad states, interdisciplinary applications in education are the:

> "…efforts to pursue knowledge without being essentially constrained by the structure and content of a single discipline, including subject matter, predominant theories, typical methods, or primary schools of thought. They imply a general desire to conceive knowledge and theoretical practice in new ways."[5]

It is certainly a standout moment for education, especially in the Digital Era we live in and a challenge as teachers need to rise as far as they can, interface, strategise and elevate contemporary teaching practices onto the next level, always regarding the curriculum implementation.[6]

The Aim

The aim of this chain of activities is for students to explore the endless musical possibilities offered by new technologies, while also learning the basics of music performance and music composition. When such activities are implemented in the teaching curriculum, the teacher can see the students become imaginative and innovative individuals who would like to focus on music performance and music compositions. Yet again, the democratization of the new technologies (free and accessible to everyone) helps create a safe and inclusive musico-technological environment, a sense of a collaborative and creative community where students

[4] Prensky, M. (2001). Digital natives, digital immigrants part 2: Do they really think differently?. *On the horizon*.
[5] Mourad, R. P. (1997). Postmodern interdisciplinarity. *The Review of Higher Education*, *20*(2), 113-140.
[6] Schippers, H., & Bartleet, B. L. (2013). The nine domains of community music: Exploring the crossroads of formal and informal music education. International Journal of Music Education, 31(4), 454-471.

express and share their ideas to the group, without any concerns regarding the socio-economic background of the participants.

Lastly, another recent trend of contemporary pedagogy that we aim to achieve/go for is the "gamification of learning",[7] a practice in which students learn-through-playing; this is exactly what this toolkit is about: learning, performing and composing music through *playing* with fun and interactive music tools.

Order of Activities

The order of activities we will be following:

***Note**: The teachers could follow these activities in a linear way as presented below, or in any order way they see fit for their teaching purposes.*

1. *Patatap* [8]
2. *Typatone* [9]
3. Chrome Music Lab - *Voice Spinner* [10]
4. *Type Drummer* [11]
5. Chrome Music Lab –

Rhythm [Composition] [12]

6. *808 Cube* [13]
7. *Incredibox* [14]

[7] https://educationaltechnologyjournal.springeropen.com/articles/10.1186/s41239-017-0042-5
[8] https://patatap.com/
[9] https://typatone.com/
[10] https://musiclab.chromeexperiments.com/Voice-Spinner/
[11] http://typedrummer.com/
[12] https://musiclab.chromeexperiments.com/Rhythm/
[13] http://808cube.com/
[14] https://www.incredibox.com/demo/

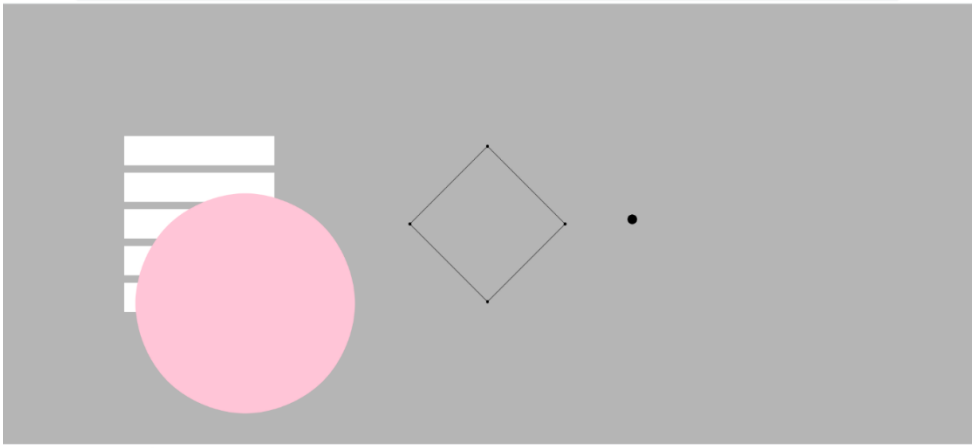
Creative Music Technology Activities

Icon meaning

	Number of participants
	Duration of the Activity
	Materials

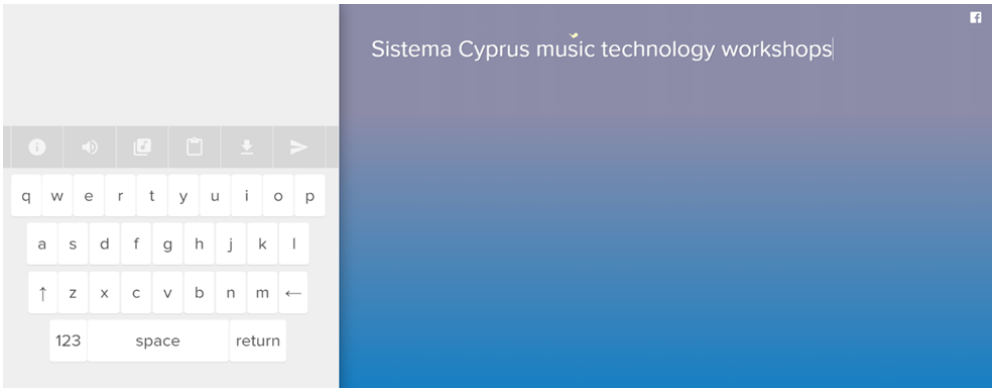
Activity 1: On touch: Triggering sounds with Patatap

10-20		15’		Wireless keyboard, projector, internet & speakers

TYPE	Solo, warm up, sampler (A/V)
GOAL	• Engage students in recognizing music samples • Engage students in recognizing visual samples • Students familiarize themselves with music tech performance (sampler, touch - keyboard) • Listen up, concentrate, collaborate, bring everyone together, create loops and rhythms
DESCRIPTION	1. Check if the wireless keyboard is connected before the students take place. 2. Using the wireless keyboard, direct students to explore all the A/V samples of the letter keys. 3. Create music patterns and rhythms based on their favorite sounds.
NOTES FOR TEACHERS	The interface of Patatap. 

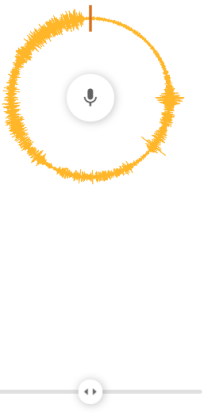
Activity 2: On looping: Composing sounds with letters (Typatone)

10-20		15’		Wireless keyboard, projector, internet & speakers

TYPE	Solo, typing, looping (A/V)
GOAL	• Engage students in typing, listening and interacting with what is on the screen. • Engage students in using spacebar key as rest. • Write their name or their favorite word • Change sounds: different speed, pace, texture and mood each time. Discuss.
DESCRIPTION	1. Using the wireless keyboard, direct students to explore all the A/V samples of the letter keys. 2. Ask/help students to write their first name in English. Then do the same with their favorite word. Interact. 3. Students change the sounds (note icon) based on their own preferences in speed and timbre
NOTES FOR TEACHERS	The interface of Typatone. 

Activity 3: On speed and pitch: Recording words & playback (Voice Spinner)

10-20		20’		Computer mic (internal or USB), projector, internet & speakers.

TYPE	Solo, recording, playback, looping (A/V), live change of speed & pitch and reverse.
GOAL	• Record their voice • Understanding playback speed • Understanding reverse
DESCRIPTION	1. Check if the microphone is working before inviting students on stage. 2. By giving the first recording example with the teacher’s voice, invite students to come at the teacher’s desk and record a short line. 3. Spin the wheel faster or slower to show the link between speed and pitch (e.g. fast sounds like smurfs, slow sounds like a big dragon). 4. Record a word of their choice backwards and reverse. Use simple words (milk, ice, etc.)
NOTES FOR TEACHERS	The interface of Voice Spinner. 

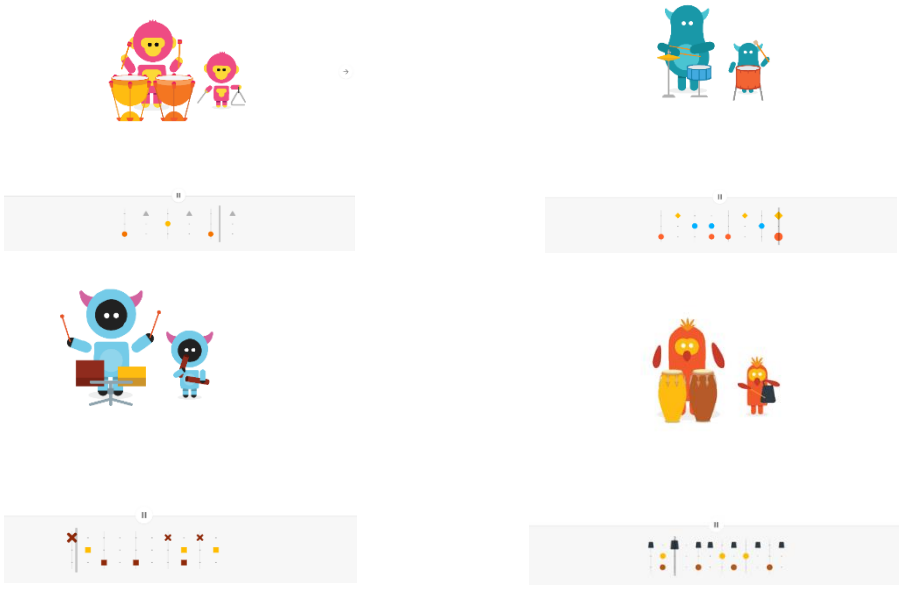
Activity 4: On beat: Writing drums with words (Type Drummer)

10-20		15’		Wireless keyboard, projector, internet & speakers.

TYPE	Solo, typing, looping (A/V).
GOAL	• Engage students in typing, listening & interacting with what is on the screen • Engage students in using spacebar key as rest. • Write their name or their favorite word. Use same letters or simple words (minimalism). • Change sounds: drum kit Vs electronic music. Discuss. Students should be more experienced and confident at this stage with such activities.
DESCRIPTION	1. Using the wireless keyboard, direct students to explore all the A/V samples of the letter keys. 2. Ask/help students to write their first name in English. Then do the same with their favorite word (use simple words). Interact. 3. Students change the sounds (‘load new samples’ icon) based on their own preferences (drum kit or electronica). 
NOTES FOR TEACHERS	The interface of Type Drummer. 

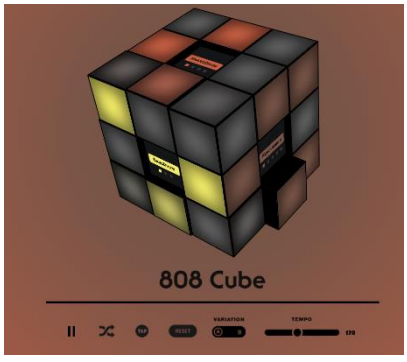
Activity 5: On composition 1: Rhythm composition (*Rhythm* by Chrome Music Lab)

10-20		15’		Wireless keyboard, projector, internet & speakers.

TYPE	Solo, step-sequencer, looping (A/V).
GOAL	• Engage students in clicking the beats in the given bars, listening & interacting with what is on the screen. New way of note input (not keyboard). • Engage students in planning before composing. Clap or sing the rhythm they aim to write down. • Change sounds: a variety of different percussion kits from a wide range of genres represented by different animated animals. Discuss their choice.
DESCRIPTION	1. Using the wireless mouse, direct students to explore all the available kits and drum parts (A/V). 2. Students change/choose their favorite instruments (percussion or electronica) based on their own preferences. 3. Ask/help students to compose a simple rhythm. 4. Ask/help students to think of a simple rhythm, sing, clap or write it down, and then transcribe that beat as intended in this music app. Interact. 5. Change the beat that is played in real time (add or remove hits).
NOTES FOR TEACHERS	The interface[s] of Rhythm. 

Activity 6: On composition 2: Rhythm composition in steps (808 Cube)

10-20		15’		Wireless keyboard, projector, internet & speakers.

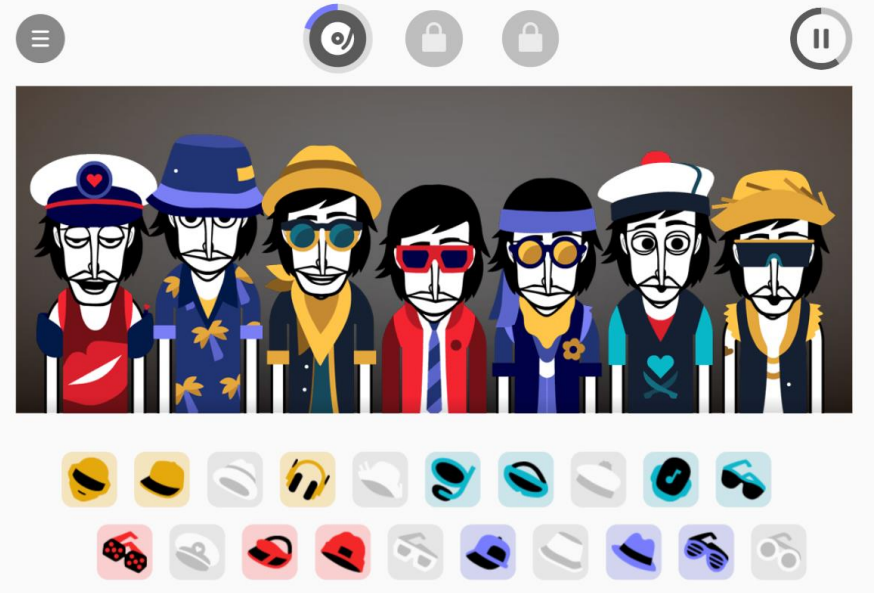
TYPE	Solo, clicking, looping, step sequencer (A/V).
GOAL	• Engage students in typing, listening & interacting with what is on the screen (rotating cube = 3D object). • Interdisciplinary – show them a real Rubik’s cube. Older students can understand the sides as instruments, etc. • Step-sequencer: 1-8, explain & give examples. • Change sounds on each side. Discuss. Students should be more experienced and confident at this stage with such activities.
DESCRIPTION	1. Using the wireless mouse, direct students to explore all the A/V samples of the Rubik’s cube. 2. Ask/help students to follow and understand the 8-step sequencer. Interact. 3. Students change the sounds (icon) & tempo (faster or slower) as they like. 
NOTES FOR TEACHERS	The interface of 808 Cube. 

Activity 7: On composition 3: Beatboxing in layers (Incredibox)

10-20		20-40'		Wireless keyboard, projector, internet & speakers.

TYPE	Solo, clicking, layering, looping, beatboxing (A/V).
GOAL	• Engage students in understanding music layers (drums, bass, harmonies, melodies), by listening & interacting with what is on the screen. • Engage students with beatboxing. Older students can perform/beatbox. • Bonus: unlock the animation after finding the right combination. • Discuss. Students should be more experienced and confident at this stage with such activities.
DESCRIPTION	1. Using the wireless mouse, direct students to explore all the A/V samples based on beatbox. 2. Ask students to beatbox "We Will Rock You" with the basic drum parts (kick, snare + hi-hat). 3. Show them the: a. solo button, b. mute button and c. remove performer, on each person. 4. Ask/help students to follow and understand the different types of instruments. Interact - layering. 5. Students change the sounds (drag and drop) as they like. 6. Identify the beat of each song: count 1-4, or 1-8. 7. Show the DJ technique of "dropping the beat": solo one performer (automatically mutes all others) → count 4 beats, or 5,6,7,8 → unmute. 8. End: Try counting 4 beats & removing layers. 9. Explore all 4 available different versions/songs.
NOTES FOR TEACHERS	The interface of Incredibox. 

NOTES FOR TEACHERS



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