International Journal of Education & the Arts

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ISSN: 1529-8094

November 8, 2022

http://www.ijea.org/

Volume 23 Number 15

Gender-equal Options for Musical Becomings in the Future Music Classroom: A Pilot Study Exploring "Thinking Outside the Box"

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Citation: Zimmerman Nilsson, M-H., Borgström Källén, C., & Ferm Almqvist, C. (2022). Gender-equal options for musical becomings in the future music classroom: A pilot study exploring "thinking outside the box." *International Journal of Education & the Arts*, 23(15). Retrieved from http://doi.org/10.26209/ijea23n15

Abstract

Gender inequality is a problem in western music education, but efforts to solve this problem in practice have thus far been insufficient. By adopting a post-human theoretical framework, this pilot study explores how music practitioners' visions of a gender-equal classroom can be used to question, reverse, and reconstruct gendered traditions within music as an educational field. The aim is to increase knowledge about how gender-equal options for musical becomings could be realized in the future music classroom. As there is a lack of post-human studies in music education inspired by an explorative design, the current project offers a new methodological approach. The findings reveal entanglements of gender-equal identities through diverse socio-material and material representations. This gives recognition to the students in representing identity and gender, genre and style, enabling liquid self-images and identities to be shaped and re-shaped seamlessly.

Introduction

Gendered hierarchies built on Western popular culture and classical traditions in the arts still govern music education to a great extent (Onsrud, et al. 2021). In contrast, the contemporary postmodern society in the West is characterized by mobility, change, and unpredictability (Braidotti, 2017). Furthermore, there is a lack of gender-equal accessibility to diverse musical learning in schools, which affects performances in the contemporary music classroom (Onsrud et al. 2021). Earlier research states that gender constructions in the music classroom constitute a prominent aspect of hindrance, and tend to reproduce gendered values and norms, especially regarding stereotyped performance of gender related to accessibility for all children and adolescents to all kinds of musical learning (Borgström Källén & Lindgren 2018; Ferm Almqvist, 2019a). This restricts some students and opens possibilities for others to be and become musically literate in school and musically active in society.

Earlier studies regarding future music education show that visioning beyond traditions is challenging (Houmann, 2017), at the same time as post-anthropocentric research tends to offer new possibilities (Asplund, 2022; Ferm Almqvist & Hentschel, 2022). Consequently, this study focused on how Swedish school music can be changed towards equality, based on post-human ways of thinking. Of special interest was how practitioners' visions of the future classroom offer new suggestions of how equal possibilities for musical learning, beyond restrictive gender norms, can be realized. Hence, the aim of the pilot study was to increase knowledge about how gender-equal options for musical becoming could be realized in the future music classroom. Gender-equal becomings are to be understood as equal possibilities for musical learning independent of sex, gender identification or sexual orientation (Ferm Almqvist, 2019a). Hence all students should have the same opportunities to learn and develop

any kind of musical knowledge, such as instruments, music production techniques, genres, expressions or bodily movements. The research question that pertains to the study is: What significant actors and entanglements become visible in collaboratively created visions of a future gender-equal music classroom? The paper includes a literature review, followed by theory, methodology and design. Then, the findings are presented as well as further explored in the discussion section.

Gender Equality in Music Classrooms

The music classroom as a conservative and reproductive practice has been widely acknowledged within the field of music education (Allsup & Benedict, 2019; Jorgensen, 2003). One important factor for the reproduction is music teachers' similar educational background, consisting of several related preparatory music programs and a music teacher educator qualification at a conservatoire for higher music education. This background may contribute to a closed loop, or cycle of educational levels, culminating in a reproduction of conservative norms, conventions, values, canons and teaching practices in the music classroom, including a taken for granted reproduction of gendered musical performances (Borgström Källén & Lindgren, 2018; Nerland, 2007; Richmond, 2012).

Although cultural diversity is well established within music education, ethnic-, socioeconomic-, function varied-, and gender related groups are still discriminated against in a culturally sustaining pedagogy. Hence, it is crucial that music teachers move from just acknowledging cultural diversity to taking care of and sustaining the same (Liu, 2020). Gendered structures are visible in research regarding the music industry (Hawkins, 2017) as well as in research focusing on music education (Abeles, 2009; Borgström Källén & Lindgren, 2018; Green, 2010). Gender representation and gender-coded choices within the music education context, where girls primarily sing and the majority of boys play instruments, are visible in several studies on a Swedish, Nordic, and international level (Borgström Källén & Lindgren, 2018; Ferm Almqvist, 2019a; Green, 2010; Hentschel, 2017; Persson, 2019). Nordic music education studies show that rock/pop and jazz genres seem to be the strongest gender-coded genres, where boys more often than girls choose, and are expected to play (Borgström Källén, 2014). Other results indicate that gendered structures in music educational studies are context-related, and that these are challenged in contexts other than the pop/rock/jazz-ensemble. Musical content unknown to the students, such as music from the renaissance epoch, challenges gender-coded situations in the music classroom. Music where no original versions are to be found and reproduced requires an open-minded gender approach to the content (Borgström Källén, 2014). Gender performances entangled with a specific genre or a specific piece of music become less present when students play music that does not have a specific role-model.

Additionally, when music is taught and practiced in a playful, process-oriented way, students do not act in accordance with gendered structures to the same extent (Ferm Almqvist, 2019a; Hentschel, 2017). Music teachers' didactic choices and approaches affect students' choices and behaviors in the music classroom, for instance in situations where students are instructed by their teachers to choose musical instruments in ensemble playing, depending on which responses they receive (Borgström Källén & Lindgren, 2018; Ferm Almqvist, 2019b; Onsrud, 2013; Persson, 2019). According to Borgström Källén (2014) and Onsrud (2013), the more freedom students have, for instance when deciding on choices of instruments or music genres in the music classroom or in rehearsal situations, the more gender-stereotyped their behavior becomes. As such, girls are, to a greater extent than boys, encouraged and trained to be "caretakers" in music educational situations. This illuminates the need for teachers to become aware of how they verbally and bodily relate and respond to students independent of sex, to be able to conduct music educational activities that encourage equality (Hentschel & Ferm Almqvist, 2020). It is also acknowledged that music production and music technology as content in music education are gendered related to teaching and learning (Armstrong, 2011; Borgström Källén, 2014; Jonasson 2020). Both students and teachers show a lack of awareness regarding gendered division of tasks in the classroom, and stereotyped gender performances are entangled in the work of creating music.

Focusing on leisure time music making with an intention to promote gender equality in formal music education, the relation between girls, transgender persons and music technology from a post-humanist theoretical perspective has been studied (Jonasson, 2020). The combination of human technology and music making enables becomings, where dichotomies between male/female technology are dissolved. The human and non-human participants are transformed to music-making hybrids who make possible power over learning when they expressively soundscape the world. Streaming music digital literacy as a content of music teaching is important to contribute to equal possibilities among students (Ferm Almqvist et al., 2021). Males and females seem to have more equal possibilities to create sounding worlds with streaming services, compared to "ordinary" social and educational settings. However, the use of streamed music in school challenges views of knowledge, content and literacies (Ferm Almqvist, 2020). As such, the music teachers have to be conscious in planning, conducting and valuing teaching to withhold teacher agency. The COVID-19 epidemic states an example of how music teachers have been forced to reflect on their didactic habits and goals. In a Facebook group for music teachers, the most frequent types of posts concerned how to design teaching situations under new conditions, which shows a willingness to change habits in the music classroom (Thorgersen & Mars, 2021). Altogether, when focusing on the future music classroom, a 'wondering disposition' about a professional's work and field remains central to any critical practice. This becomes especially important in times where democratic challenges strongly contest social and educational environments, which demands an emphasis on new

future-influenced, process-based learning approaches (Schmidt, 2019). As mentioned before, earlier studies interested in future music classrooms show that existing norms and values tend to limit future possibilities (Houmann, 2017). Consequently, research that explores how the organisation of music education can contribute to gender equal music becomings, beyond discriminating structures, is needed. Furthermore, as commonly used theories in previous research are not enough to bring about change, a post-human approach may offer challenge and instigate change to established gender structures in music education.

Theory, Methodology and Design

To increase knowledge about gender equal options in music in an explorative way, the pilot study is based on a theoretical framework emanating from a socio-materialistic, post-human perspective (Barad, 2010). Based on the current research frontier, it is evident that research in music education must move from music studies about the Anthropocene, towards studies in the Anthropocene. Such research may challenge current unequal gender structures (Brennan & Devine, 2020). In an anthropocentric view of education, humans are viewed as superior, and at the center of attention. Humans stand above all other species and have specific values, rights and privileges, based on the fact of being perceived as human. Hence, a reconfiguration of the subject is needed, which takes into account the interdependent and entangled relationships between humans and 'the more-than-human world'. Accordingly, the task for research is not to predict, but to explore and act inventively via diverse adventures in living. The condition of the Anthropocene has to be addressed when crossing boundaries between humanities and sciences, as well as between cultures and natures (Brennan & Devine, 2020; Haraway, 1988). As such, the Anthropocene calls upon scholars to see themselves as participants in a 'becoming world', where everything is interconnected and exploration takes place in a tentative, 'trial and error' manner (Gibson-Graham, 2011).

The key idea of post-humanism is "entanglements" (Barad, 2010; Bennett, 2010). The concept refers to an assemblage of entities and beings, of humans and more than humans; materialities, and discourses. Hence, the post-human is not seen as a singular, defined individual, but rather as one who can become or embody different identities and understand the world from multiple, heterogeneous perspectives (Haraway, 1991). Also, the world is seen as continually becoming through overlaps, participation, and co-existence between humans, materialities, and discourses. To approach visions of entanglements that promote gender equal becoming in the future music classroom, actors, as well as access to teachers', students', teacher-students' and other professionals' representations of the future classroom, become crucial. Of special interest are experiences, visions, and values. Hence, visual ethnography (Pink, 2021) and arts-based research (Barone & Eisner, 2012) constituted the methodological approach for this pilot study. Visual ethnography (Pink, 2021) stresses that the use of visual images and technologies develop as part of social relationships and activities. This motivates

creation of digital and non-digital images of visions in collaboration, based on discussions regarding views of music as teaching content, as well as of teaching and learning music. As such, the design includes reflection-based interviews and collaborative creative activities, where visions of future music classrooms are to be realized via a communication tool. Hence, the study demanded an arts-based research approach (Barone & Eisner, 2012) that motivates multi-modal productions, analysis and publication of the research material concerning visions of equal music education. In contrast to the traditional use of written and spoken language, arts-based researchers combine this with alternative forms of expression (Barone & Eisner, 2012), which will contribute to exploration beyond current structures. The task for the researchers in this project was to be participants of a becoming world, to create explorative situations, or webs of relationship for common reflection and creativity, aiming to create visions of the future musical classroom.

The recruitment of participants was conducted through strategic and convenient sampling (Flick, 2014). Four participants of different ages and genders, studying, teaching, or producing music respectively, within formal and non-formal educational fields of music, were asked to take part in the study and all agreed (see Table 1). More specifically, the participants consisted of a music industry practitioner; a music producer with ten years of experience (Participant 1), a music teacher in primary and lower secondary compulsory school with five years of teaching experience (Participant 2), and two students, studying in their fifth semester of music teacher education for upper secondary school (Participant 3 & 4). The music industry practitioner was needed to ensure that an external perspective (i.e. outside the music education community) was taken into account when exploring a music classroom beyond traditional and gendered musical convention The participants were informed, orally and in writing about the study's purpose, how the material would be presented and published and who to contact with questions about the study. The participants formed a group. Participant 4 could not participate during the second meeting, but the group still included the three categories, teacher, student and music industry practitioner.

Table 1Participants in the study.

Participants	Self-selected gender identities	Role
Participant 1	Male	Music industry practitioner
Participant 2	Female	Music teacher
Participant 3	Female	Music teacher student
Participant 4	Male	Music teacher student

The data collection design comprised two meetings via the communication software Zoom. The design was developed, tried and evaluated beforehand by the researchers (Zimmerman Nilsson, et. al., 2022). Within the initial session, participants discussed and conceptualized a 'gender equal' classroom by reflecting on the contemporary gender unequal music classroom and ways to move towards increased gender equality. Here, the participants expressed that a more open, flexible physical space might assist increased gender equality. Before the second session, the participants were asked to draw a vision of a music classroom individually, based on the discussions during the first session, and to focus on how to create conditions for gender equal musical becomings. The participants saved their visualisations digitally and brought them to the second meeting. In the beginning of the second session, each participant presented his/her visualisation of the future gender-equal music classroom. Then, the participants created a joint vision of a music gender-equal music classroom in the digital white board in Zoom by discussing and negotiating beyond established spatial and economic structures. Concluding questions probed approaches to promoting gender equality.

Both meetings were recorded via zoom including the participants' verbal discussions as well as individual and joint visualizations of the future music classroom. The findings in this paper focus on the participants' communication in session two while creating a joint vision of a music gender-equal music classroom on the digital white board in Zoom. Although quotes from the participants in the findings section might not always explicitly address gender, the focus on the gender-equal music classroom from session one permeated session two.

The transcribed visions and discussions as well as the digital drawings provided the base for an actor-network theory analysis (ANT-analysis) (Callon & Law, 1995; Latour, 2005). Applying ANT as a tool for analysis implies that natural and social worlds are seen as mutually emergent and intertwined, situating materiality as a part of social practices (Ahn, 2011). A starting point is that every single actor affects the becoming in and of the network,

making the relations between the actors in a specific network symmetrical and mutual (Callon & Law, 1995). According to Fenwick and Edwards (2012), ANT is suitable in educational studies when the aim is to trace and explore new ideas, practices and technologies. The approach strives to make entanglements, visions and values visible, including human, non-human and socio-cultural actors. As a consequence of applying ANT, the future music classroom is explored as a network where human actors, non-human actors and socio-cultural actors are entangled when shaping and re-shaping meaning. The analysis identified significant actors in the organizing and performing processes, coexisting with the network. Actors move along trajectories, which at the same time connect actors together in networks, durable in time and space (Ahn, 2011). As such, the pilot study identified significant actors in future music classrooms, focusing on relational aspects of organizing gender-equal classrooms.

A three step ANT-analysis was applied. Step one identified which human and non-human actors that were present in the networks. Step two concerned questions regarding what the different actors did in the networks and how they influenced the process. Step three described the effects of the process as well as the different meetings and connections that occurred as the actors were identified and connected with other actors.

Findings

The study's aim was to increase knowledge about how gender-equal options for musical becoming could be realized in the future music classroom. Therefore, the analysis focused on the participants' communication, while creating a joint vision of a gender-equal music classroom on the digital white board in Zoom. Initially, the findings focus on the actors within the music classroom assemblage, followed by a presentation of three interconnected, entangled becomings. Finally, the visualisation of the future gender-equal music classroom is presented in Figure 1. From an overall perspective, material actors consist of rooms, spaces, furniture and equipment, while human actors encompass students and teachers. Entanglements consist of human actors and diversities of spaces, floating spaces and becomings through diverse representations, and show how the actors become intertwined in a web of possibilities.

Actors in the Future Music Classroom

Significant human actors within the visioned music classroom are music teachers and students in different group constellations in compulsory school. Teachers, and especially students within the student groups, are envisioned as intra-acting in various ways with material and discursive actors. Analogue material actors are rooms and spaces, glass doors, music instruments and furniture, while digital material actors are computers, loudspeakers, MIDI-keyboards and studio equipment. Discursive actors are visioned approaches to music teaching in the gender-equal classroom and social norms related to an ideal music education. The

attitudes are permeated by expressions such as: "Let's dream", "... room for a great variety of activities", "... acoustically treated surfaces and floating rooms", "... highlight individuals, groups and different cultures and different genres...", are prominent in the communication. The future student as competent emerges, as well as beliefs in the potential of an elaborated gender-equal future music education.

Entanglements of Human Actors and Diversities of Spaces

In the participants' communication about the gender-equal future music classroom, the character of material actors; rooms and spaces were especially focused. These material actors were entangled with human actors, i.e. teachers and students:

P1: Approximately, what would be the optimal number of students? Because then we could think like this, we have an emergency exit and a stairwell that makes eight rooms [referring to the envisioned classroom in total]. So, what size should it be on a group of students per lesson? Then you could piece together how many types of different rooms you would like to have.

P3: Yes, exactly. Because we can dream now, I was wondering, a hall that's quite large is nice to have, if you are going to have Lucia [Christmas concert] training and the auditorium is occupied. Then, there could be a hundred ninth-graders [age fifteen] who will sing, and you can divide them into sopranos, altos and basses. In this way, we have a hall that we can use.

/.../

P3: What about doing like this, we could have a kind of a rehearsal room.

P1: Well, that's brilliant. Maybe you could have a little studio as well. I was thinking, how many of each?

P3: I was thinking, what do we have left? We have a study exercise room, a theory room...

P1: Exactly, I thought, my idea was that a study room could be a rehearsal room for a great variety of activities. It's a room that has a computer and loudspeakers, so you can be there. It is great equipment to have if you are going to practice a song as well. If you have nice MIDI keyboards with weighted keys, you can practice piano in a room like that as well, so I think it does not only need to be a room for recordings.

P3: It's perfect.

P1: So, you can do many things in the same room.

The ANT-analysis implies that the participants' visions about the gender-equal future music classroom show entanglements of human and material actors, characterized by entangled intra-actions. The music classroom is continually becoming through overlaps of activities and spaces that make possible several forms of participation beyond gender stereotypes, and co-existence between humans and materiality. The multiplicity of material actors, of rooms of

different sizes and character, make possible mutual becomings with small and large student groups as human actors (see Figure 1). As such, the envisioned intra-actions form an assemblage where different spaces are combined related to different group sizes to make enhanced conditions for music teaching. Rooms as material actors, besides being of different sizes, are also flexible and offer diverse intra-actions with human actors by way of the equipment within the rooms. Analogue material actors are rooms of varied spaces; auditorium, hall, rehearsal room, study exercise room and theory room, while digital material actors are equipment; computer, loudspeaker, MIDI keyboards with weighted keys and recording devices, open for any gender to intra-act with. Human actors are students in different group constellations and teachers. Involved actors are seen as non-autonomous. They influence each other, where the variety of rooms, spaces, equipment, student groups and music teachers form a holistic approach, an open way of any gender using space in varied activities, relating to the process of becoming.

Entanglements of Humans and Floating Interconnected Spaces

The communication continues by a reasoning about how different human actors of different genders, material actors and spaces can interconnect to one another, creating a floating space, implying that both actors and entanglements become significant in the music classroom.

P3: Let's dream!

P1: Ensemble rooms are also usually soundproof. Only acoustically treated surfaces and floating rooms. Then maybe you can add that each room has... or should you do one like this, in parentheses, studio.

P2: In parentheses, soundproofed studio.

P3: Theory room, where should one place that?

P2: I think of the auditorium at my university, there were chairs and then there was a table you could fold down from the chair in front if you needed a table. Although it would be nice with some sofas too. We should not all get pain in the buttocks. That's not the classroom of the future, is it?

P3: Right. They should have a computer to connect to the piano and the sound card. Do there need to be ready-made stations for students, so theory does not have to be... so it can be practical theory stuff as well? Ear for music and so on? Or should it be along the walls that you fold down?

P2: Oh, I would like a hall, then say ten stations: ten keyboards, ten guitars, ten sound cards, ten computers and a white board at the front where you have both theory and ear training for music and everything together. And piano for playing chords and guitar for playing chords in the same room.

P3: Then I think that it could be connected to the studio and maybe that you have a door in between so that you can, I do not know, collaborate with the studio when you have the

theory as well. Glass doors.

P1: You can connect all the rooms so that you can record... glass... If you go ahead with the studio thinking. On the other hand, if you have one room then it can be a recording in the room next to it. If you connect all the rooms and you can connect them together so that... boxes like this. So that all rooms connect so that you can record what happens in the ensemble studio, for instance. You can connect all rooms.

The participants' visioned gender-equal music classroom is continually becoming through overlaps of spaces. Fluid rooms and spaces create several forms of co-existence between materiality and humans. Intra-actions between humans and materiality form entanglements, multiple ways of becoming where rooms, spaces and students independent of sex, gender identification or sexual orientation, continuously negotiate and re-negotiate through changes in the music lesson assemblage. The large, spacious auditorium is flexible and possible to furnish with or without chairs, encompassing sofas for comfortable beings; materiality and humans together. The future gender-equal musical classroom implies humans (i.e., significant actors) intra-acting with analogue and digital musical instruments, digital computers and digital interfaces. Intra-connections involve entangled rooms and spaces, forming a web of visual and auditory sharings together with students and teachers in the moment. Ensemble and studio-room combinations interconnected to other rooms make possible a joint holistic musical becoming. Collaborations with music theory and audible studio recordings, ensemble playing, and simultaneous studio recordings create entanglements in time and space, intertwined with visual connectedness through glass doors materiality. Vital discursive actors include approaches to spaces, characterized by expressions as "acoustically treated surfaces and floating rooms." The emphasis on inter-connectedness forms a vision for the boundless music classroom. This sense of "free-flowing" spaces forms conditions for increased equality. This makes possible a greater variety of intra-actions with enhanced room for different genders to be equally seen and included in the music classroom. It becomes clear that the future music classroom, seen as entanglements, offers 'becomings' for actors in varied ways. The human actors; students and teachers, the analogue material actors; rooms, spaces, glass doors, musical instruments and the digital material actors; keyboards, computers, studio equipment, have shared agency and form significant actors within the classroom.

Entanglements of Flexible Spaces

The participants move on to communicating about how possibilities of changing the size of the space, temporarily and flexibly, can contribute to gender-equal possibilities for musical learning:

P2: I think you could have musical performance and master classes in the auditorium $/\dots/$

P3: So, a dance hall is not bad, but it might be possible to have... I mean rhythmics and movement and so on. /... / And then I think that on the edges you can have the "pants" and then you can also have mirrors and then you can just pull the "pants" when there are concerts and so on.

P2: The question is how we think about this, because in a black box it is important that everything is black.

P3: Well, if you have "pants" to pull...

P2: Yes, exactly. What are "pants", are they heavy black curtains?

P3: Yes, just like hanging along the walls at the scene and on the side of the walls. You can just "schhh" and they are heavy and thick, and they cover everything, if possible...

P1: Well, couldn't you just pull them, as you can in gyms, to divide the room in two? You could have such a design. Or we can just have one downstairs and then you can have a blackbox downstairs as well.

P3: Yes, because we have unlimited possibilities (laughs)

P1: It also struck me now that we have your idea (addressing P3) that it should be very light and so it might be difficult when it... Maybe we can have a window in the ceiling?

Here, the participants especially focus on how to make changes to the size of a space temporarily. As such, material actors are to be flexible and possible to change in the classroom. Such a variety opens for diverse entanglements between spaces and humans. Having decided that it is important with continuous possibilities to change the rooms, the participants suggest possible activities in the auditorium. Significant analogue material actors are the "pants" (i.e., heavy black curtains) that make possible several sizes of the auditorium. As such, the room will be in constant becoming by way of overlaps of differences in size. By using the "pants," it is possible to change the space of the auditorium to enhance conditions for music learning.

Analogue material actors, beside the pants, are edges, mirrors, the "blackbox-character" of the room, walls, scenes, sides, room, stairs, windows, and ceiling. Here, the human actors are addressed by expressions of how "you" can change the room. This makes possible that the variety of sizes of spaces also invites diverse activities in the process of becoming in the music classroom. Significant discursive actors are shown in expressions as "and then you can just pull the "pants" when there are concerts and so on," emphasizing that the material actors intra-act in a flexible way with human actors, where the type of activity decides how to form the spaces, indicating continuous intra-acting in the classroom. The significance of the character of the space emerges, showing that human- and material actors influence each other continuously.

Becomings Through Diverse Representations

The intra-actions and entanglements visible in the music classroom, by way of the participants' communication, seem to influence how varied musical 'becomings' are envisioned. The participants focus on how to address gender equality in the future music classroom:

P1: On the walls in all rooms, make sure that there is representation, both in terms of identity and gender and genre and style. Not just Beethoven or Billie Eilish but you can also have Avichii or anything. Music is different from other school subjects as it includes many students - what they consume and meet every day, Billie Eilish, for instance, huge icons. There is a lot of potential in that, that you can use. /.../ Spontaneously, I think that the aspect of smaller groups of students or more teachers is a prerequisite for looking after each individual in a group. And then I think that if you could, especially for older students who can sit independently or in dyads, that it can be important to have their small safe spaces, concerning singing, for instance, before a singing performance. You can sit by yourself or together with someone else and practice and build this self-confidence, as well as identity. To highlight individual groups and different cultures and different genres which are closely associated with different groups, identities. See themselves. A little more difficult in other subjects. It's important that you get into a place where there is representation in both equipment and style and all that.

P3: I agree with you P1 and I thought about including all cultures and such. I agree with you.

The participants' visions of a gender-equal music classroom implies entanglements of everyday culture and school culture, made visible through material actors (i.e., posters/pictures on the walls in all rooms of music icons constituting significant socio-material actors giving recognition to the human actors, the students) in representing cultural actors like identity and gender and genre and style. Musical 'becomings' are characterized by space for each human actor and that every individual is noticed by the teacher. In the created entanglements, students, teachers, rooms, spaces and equipment appear as significant actors and intra-act when musical becomings are at play. Small safe spaces make possible self-confidence - and identity development. More than human actors, the materiality of smaller rooms create possibilities for intra-actions promoting self-confidence, and make possible the entanglement between students in playing, reflecting and growing self-esteem. Equal identity 'becomings' appear as entanglements of cultures and genres which in turn are intertwined with a web of groups and identities. The future human actor, the music student, becomes in processes of relating to a diverse and ever-changing self – formations by a future music teaching involving individuals, groups, cultures, genres as a means to seeing oneself intertwined in a web of possibilities. Equal norms regarding valuations between music styles, genres and cultures are

characterized by a diversity of representations, within which liquid self-images and gender equal identities can be shaped and reshaped. As such, the entangled future music classroom includes rooms, spaces, equipment and styles that represents a multiplicity of possibilities. The human, material and social actors of the music classroom seem to be in a mutual becoming, influencing each other. Hence, the natural and social worlds of music and music education seem to be mutually emergent and entangled, and further constitute how the included actors influence each other in the future gender-equal music classroom.

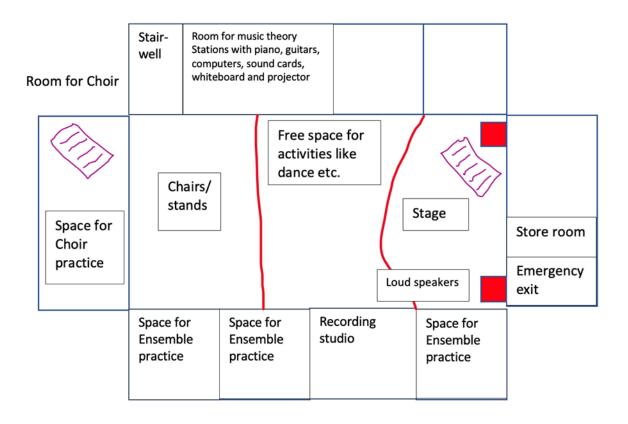


Figure 1. Participants' Joint Drawing of the Future Music Classroom

Discussion

The aim of this study is to increase knowledge about how gender-equal options for musical becoming could be realized in the future music classroom. In the following section, arguments concerning broader contexts than the study involve a generalization of the findings. Although such a generalization may be considered ambiguous, we believe it important to discuss the findings in a broader perspective.

The main findings reveal that several actors and entanglements become visible in collaboratively created visions of a future gender equal music classroom. Entanglements of

human actors and diversities of spaces show that different spaces intra-act with different student group sizes, which seem to enhance conditions for gender-equal music learning. Further, entanglements of humans and floating interconnected spaces create co-existence between materiality and humans with shared agency. Intra-actions between students, teachers, and spaces make possible entanglements in time and space, creating a holistic musical becoming, a web of visual and auditory sharings in the future music classroom. Analogue material actors; rooms, spaces, glass doors, music instruments and furniture, appear as intertwined with digital material actors; computers, loudspeakers, MIDI- keyboards and studio equipment form significant actors. Flexible rooms in size and by way of equipment within the rooms invite for diverse intra-actions with human actors. As such, the findings have the potential of developing the music classroom towards a music education where human actors are transformed to music-making hybrids who have agency over their learning (see Jonasson, 2020). More specifically, the entanglements of gender-equal identities through diverse material and socio-material recognitions and representations of music icons and idols, open up for equality. Diverse and ever-changing representations of identity and gender, genre and style make liquid self-images possible. The presence of socio-material actors as representations of music icons, encompassing each individual music student identification, could be one way of reversing and reconstructing how to approach rock/pop and jazz genres in music education, that currently seem to be the strongest gender-coded genres (Borgström-Källén, 2014).

Furthermore, findings show that spaces for each human actor opens a multiplicity of possibilities of intra-actions and growing self-esteem. Such a scenario enables freedom of choices in the music classroom that make possible a gender-equal music classroom, a significant potential for development from the contemporary music classroom of today, where the more choices students have, the more gender-stereotyped their behavior becomes (Borgström Källén, 2014 & Onsrud, 2013). Such gendered structures, re-negotiated through a diversity of becomings, form a potential for development from the contemporary traditional gender structures in music education addressed by Abeles (2009), Lindgren & Borgström-Källén (2018), and Green (2010). Then, gender representation and gender-coded choices within the music educational context can be expanded, from the contemporary music classroom where girls primarily sing and the majority of boys play instruments, conditions that are visible in several studies on a national, Nordic, and international level (Borgström Källén & Lindgren, 2018; Ferm Almqvist, 2019a; Green, 2010; Hentschel, 2017; Persson, 2019; Onsrud, 2013). Overall, the findings suggest that a diversity in material and sociocultural actors, entangled with human actors imply floating interconnections between spaces. This forms a vision of how a future gender-equal music classroom, beyond traditional and gendered musical conventions, could be manifested. Potentials for increased gender equality relate to a wide accessibility of representations, that makes room for a diversity of identities and genders, genres, and styles. This makes possible a music classroom in line with the

postmodern society in the West, characterized by mobility, change and unpredictability (Braidotti, 2017). As such, the findings show an alternative to the current reproduction of conservative norms, conventions, values, canons and teaching practices in the music classroom, where a taken for granted reproduction of gendered musical performances dominates (Borgström Källén & Lindgren, 2018; Nerland, 2007; Richmond, 2012). As students and teachers now return to physical, rather than online, classroom spaces (Thorgersen & Mars, 2021) post COVID-19, the exploration of ways in which physical spaces interact with and inform gendered responses to music education is particularly relevant.

As for methodological implications, this study's focus on the future music classroom has challenged the participants to "think outside the box" beyond current teaching norms and values. However, this proved to be a difficult task, given that earlier experiences were influential in their communication about the future. This is in line with earlier studies interested in future music classrooms, showing that existing norms and values tend to limit future possibilities (Houmann, 2017). Nevertheless, the participants in our study expressed that their experiences of music classrooms were taken from educational contexts other than the traditional compulsory music classroom. As such, when creating the envisioned classroom for the future in this study, the participants drew on examples from other contexts as preconditions for the creative process, resulting in the compulsory future music classroom. However, one significant challenge, when moving forward to the main empirical production, is how we, as researchers, can enhance and expand the way in which we encourage, support and inspire future participants to move further "outside the box."

Conclusion

In today's reproductive music education practices (Allsup & Benedict, 2019; Jorgensen, 2003), gender related groups are still discriminated against in a culturally sustaining pedagogy (Borgström Källén & Lindgren, 2018; Ferm Almqvist, 2019a; Green, 2010; Hentschel, 2017; Persson, 2019). However, this might be improved by a post-human approach, highlighting socio-material dimensions related to aspects of gender inequality in the music classroom. In turn, such an approach could make possible the realization of gender-equal options for musical becoming in the future music classroom.

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