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Expandable Learning: Teaching Digital Music Production in Swedish Schools

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ABSTRACT

Since the 1970s, popular and folk music have had a central position in the Swedish national curriculum. Perhaps more than in other countries, the music industry provides schools in Sweden with a frame of reference for music education. Recent Swedish school curricula emphasize the pupil's development of digital competence and promote creativity. However, music education research in Sweden has not embraced digital music production. Drawing on scholarship in music and art education and media studies, we have developed a model for teaching digital music production in public schools. It derives from a values-based pedagogical model, consists of eight distinct steps and allows the teacher to assess the creative processes that take place in the classroom when their students produce music with a Digital Audio Workstation (DAW). In our article, we explore different values that may be created during those processes.

Keywords: *digital music production, values-based pedagogy, creative process, composition, music industry, digitalization, entrepreneurship, creativity in music, Sweden*

Introduction

Since the 1970s, music education in Sweden has gradually become more focused on folk and popular music, rather the traditional models of performance and composition in the Western classical genre (Prieberg 1976). At the time of writing, classical composers, music notation, and singing and playing classical music are not prioritized in Swedish music education and the national curricula. The latter promote the development of the students' identity through music (Bouij 2014). The everyday

music environment of the students is taken as the frame of reference and the music repertoire that is taught is mainly shaped by digital streaming platforms and their supply of commercial music. The Swedish National Agency for Education—Skolverket—is the authority in Sweden that is responsible for ensuring that all teaching in the country is carried out according to the same national curriculum. It is the national parliament—the Riksdagen—that decides on the governing documents that must be applied in all schools in Sweden. In the 1940s, to support musical education outside school, voluntary municipal music schools (Kulturskolerådet 2025) were opened; they played and continue to play an important part in the music education of the Swedish population.

The curriculum for compulsory schooling from 1994 was the first to address popular music in a broader sense (Skolverket 1994). This corresponds with the governmental focus on popular music in Sweden. In recent Swedish curricula, digital music tools are treated as equal to other musical instruments (Skolverket 2011, 2022). Musical creativity and production fits into Swedish school politics, which emphasize entrepreneurial educational goals. Music creation has several points of contact with entrepreneurship because entrepreneurship stimulates students' creativity when they are trying out their own ideas (Skolverket 2017). Our investigation centers around these two aspects—digitalization and entrepreneurship in music education in Swedish schools—and investigates different ways in which they can relate to a value-creating pedagogy.

The Swedish Music Industry as the Point of Reference

Reproducing traditional music is no longer as important as it used to be in music lessons in schools in Sweden, as the national curricula show. According to John Dewey ([1916] 2014), meaningful learning considers the importance of theory and practice as each other's prerequisites in school as in everyday life. Goal-oriented learning takes its starting point in personal interest. Students bring their everyday experiences to the music classroom. The international success of Swedish artists and creators in popular music depends on several factors. The general music and culture in schools and the social and economic safety net are usually highlighted together with good English language skills, technical competence, and networking (Johansson 2021).

Teaching materials and teachers' guides in Sweden after 1945 and especially from 1962 onward have moved the emphasis from singing and understanding music based on an aesthetic education to composition, improvisation, arranging, and variation (Strandberg 2007). According to the curriculum at the time of writing, genres that are taught in music classrooms in Sweden should consist of art music, folk music, and popular music from different specified periods (Skolverket 2022). However, there is a lack of educational methods that support creative learning processes in relation to popular music genres that rely on working with digital tools. The methods that are available are not always directly applicable to teaching students how to create such music. For instance, using digital tools to produce music requires different skills than the creation of music using acoustic instruments. As the Swedish School Inspectorate stated in 2019, music education does not always promote creativity, which applies to both acoustic and digital creation (Skolinspektionen 2019). One reason for this is that the students are not allowed to reflect sufficiently on the process of their own and others' music making. The tasks are not designed in a way that contribute to an understanding of the creative process, and sufficient time is not provided for composing. In summary, the School Inspectorate stated a lack of promoting the students' ideas and developing them (Skolinspektionen 2019).

The music industry provides many students with a frame of reference for their personal styles, tastes, and identities (cf. Bjurström 2005). The need for entrepreneurial skills when artists use contemporary music-marketing platforms such as YouTube, Spotify, and so on is a driving force behind an epistemological shift in defining the role of the music learner, and in identifying concepts that can be used for guidance in music education. A values-based goal for teaching could be to perceive students as managers of their own productions by taking certain artists or music producers as their role models and composing with the help of a Digital Audio Workstations (DAW), the most common device for creating music today.

Music Tools and Creativity

According to experienced music producers, digital tools are democratizing music making, in the sense that they simplify the process of composing and creating music

(interview with Andreas Carlsson in Knust 2025); this may be helpful for students who have not acquired many music skills (Olsson 2014), such as those who do not play an instrument (which applies to the vast majority of primary school students). Digital tools, therefore, have an inclusive dimension. As previously mentioned, according to the Swedish National Agency for Education, music making can imply using entrepreneurial approaches and stimulating students' creativity and their willingness to test their own ideas (Skolverket 2017). Integrating digital tools into music lessons opens a variety of new teaching perspectives because these tools exceed the function of traditional acoustic instruments: they offer AI- and algorithm-supported designing and mastering of music and different methods of music making, as well as the possibility of directly connecting to other digital media. Digital music production is more than just playing and recording music. It allows immediate distribution and marketing through, for instance, social media, because tools used for digital music creation (like the mobile phone or the laptop) are also digital communication devices (Burkhart et al. 2021). Sound recordings can be produced easily using such digital tools. Since the invention of the Edison cylinder, sound recordings have been media that are, according to Friedrich Kittler, superior to human memory in terms of preserving data (Kittler 1986). In a digital context, recorded snippets of musical ideas or sketches on a mobile phone can facilitate creative working processes for people who are not able to read or write traditional Western scores. In addition, a digital recording can be more easily edited than an analogue one to compensate for technical shortcomings that have occurred during the recording process.

Perhaps playing on digital instruments does not always lead to an improvement in playing skills, which tends to happen when using acoustic instruments, but it almost always leads to a recording of some kind—to a media product. Those media products—which we understand as such in the literal sense but also in the semiotic sense (Elleström 2021)—satisfy the expectations of the students much more easily and much more quickly than acoustic music making, which requires the time-consuming acquirement of at least rudimentary practical skills (Olsson 2014). The digital media products of the cultural industry do not offer as much cultural value in the traditional sense, though, which perhaps is best described by Theodor W. Adorno in his polemics against commercialism in music. According to Adorno, cultural value manifests itself in

music as intellectually challenging in terms of structure, material, and expression (Witkin 2002). Obviously, the mainstream products of the popular music industry and those of the young users of digital tools in school are not challenging in this way; but their products have other values as we will demonstrate.

Values-Based Learning: Different Dimensions and Stages of the Process

When students are confronted with creative tasks, they may learn to explore their creativity in a school subject by acting as *givers* instead of *takers*. The altruistic aspect of such activities can be emphasized when they are directed toward benefitting others (Lackéus 2017). Working with creative and value-creating processes can mean engaging with challenges that exist in pedagogy and in the school's everyday work environment, such as the complexity of teaching situations, the lack of resources, and the difficulty of measuring students' commitment. Entrepreneurial pedagogy can solve problems concerning *what*, *how*, and *why* to teach, and brings together a traditional norm-based "objective" learning with a more permissive, progressive, and experimental one. This approach can be used as a psychological tool during creative processes and collaborations in the classroom (Lackéus et al. 2016; Fautley 2010).

According to Lackéus (2018), value creation is important for the people who engage in it, and it may become part of their personal development. Meaning making is about creating interpersonal contexts—it is about something that is larger than the individual. Creating *social value* benefits other people as a goal. *Harmony value* creates meaning in an even broader social context in the form of, for instance, cultural values such as justice, caring for nature, and wanting equality and the best for all. Aiming for *enjoyment value* means having fun when creating something. *Influence value* is about being able to direct other people, and *economic value* concerns capturing value for oneself by producing what others demand (Lackéus 2018). In Figure 1, which illustrates the value-creating pedagogy by Lackéus (2018), the petals show the different aims of this kind of teaching: creating social value, enjoyment value, harmony value, influence value, and/or economic value. Value for oneself also generates value for others, and vice versa, which is represented by the yin and yang in the middle of the diagram.

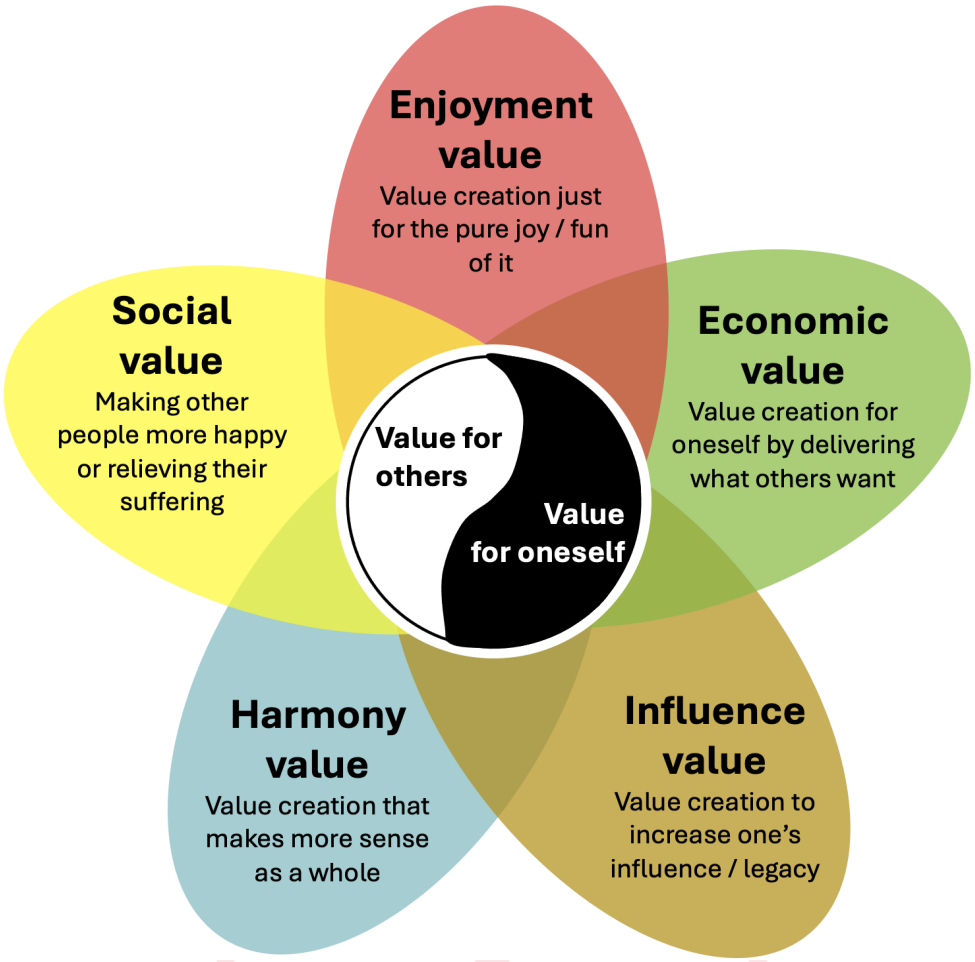

Figure 1: Lackéus's (2018) flower-of-values diagram: an overview of the different dimensions of a value-creating entrepreneurial pedagogy.

In a problem-solving creative process, the teacher must plan, identify, and guide the student through different stages by mediating artifacts and engaging in creativity-promoting teaching. The student starts developing competencies that strengthen their self-image and their abilities through the affirmation of others that trigger self-insights. According to Fohlin and Wilson (2021), value-creating learning can lead to many things: a sense of meaningfulness, having motivation, feeling courageous enough to try, fail, and try again, feeling competent to take action of some kind, an increase in self-confidence, the real-world application of learned knowledge, the managing of emotions and failures, and the development of persistence and satisfaction.

In a hypothetical case, the starting point for the aim of a value-creating teaching project could be creating enjoyment value and social value. Here, value could be created in the classroom and manifest as an appreciation of the producers and recipients of a music product. This could apply to limited and simple projects that stretch over a few weeks and that the teacher plans with the students. The second step could involve exploring the values of influence and harmony, perhaps still within the school. Here, the feedback should be articulated more by the recipients of the music products than by its producers, and slightly larger groups could be involved as the audiences of the products. Finally, all five value aspects could be applied when creating music for distribution outside the school, for instance via online platforms. Those projects could involve a large group of students and take place over months or even years. A project could take the following form:

- Case: The task is to create value for someone else.
- Starting point: The skills and knowledge that the students possess and that they believe can create value are identified.
- Plan: Ideas are collected concerning how to proceed with a task and how to test and evaluate it together (Fohlin and Wilson 2021).

Figure 2 outlines the steps that should be taken during a problem-solving creative teaching process that is directed toward developing entrepreneurial competency. During such a process, the student may pass through various emotional stages and the teacher must identify, plan, and help the student during those stages of the project. Eventually, the students and teachers may find that the process leads to the development of competencies that have strengthened their confidence in their abilities, meaning that they can move from affirmation to insights, such as, “I dare, I overcome difficulties, I can do this!” Through these insights, motivation is generated to move forward and work on new, similar projects: the feeling becomes “I want more of this!”. In the best-case scenario, students can identify themselves with the newly developed competence: they think, “This is who I am!” (Lackéus 2015).

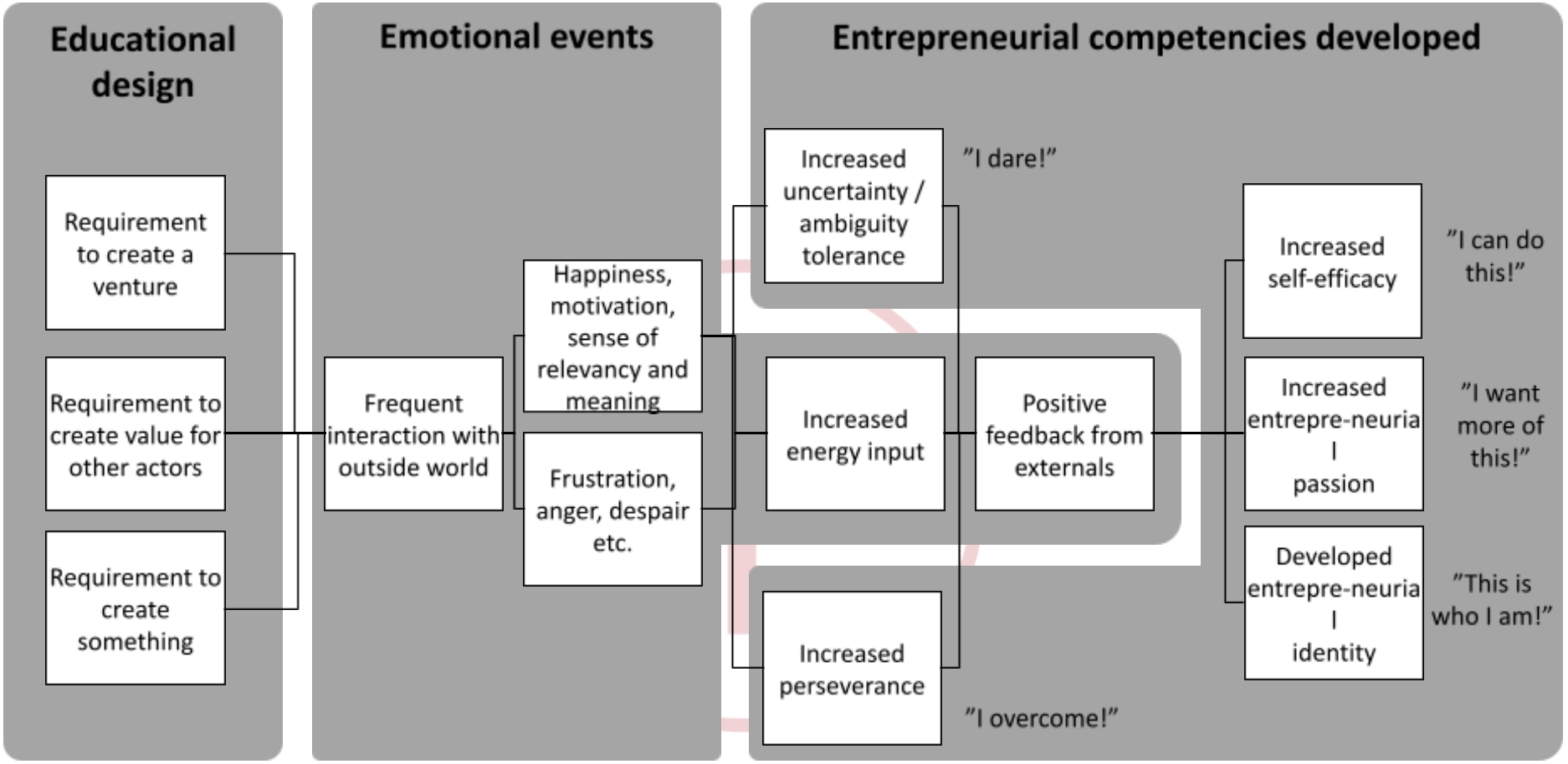

Figure 2: The steps of a problem-solving creative teaching process whose aim is to develop entrepreneurial competencies (Lackéus 2015).

Specific entrepreneurial goals for an activity could be aiming at a target group as well as reflecting the *choices* of the values that the students want to achieve. Music assignments can create value for the students themselves if they are creating something for their own pleasure and development, or for their classmates to enjoy. The goal of an assignment can also be to create a media product that is valuable to someone outside the classroom, for example music for people in an old-age home. The overall benefits of these value-creating tasks are that students may learn more about the processes of targeting and promoting and may experience their creative skills and choices improving over time. In a more general context, such activities in school may support students' creativity and increase their motivation. The activities can thus help to improve creative thinking and to achieve a state of flow (Csikszentmihalyi 1990) that is connected to music making. Experiencing a state of flow in the psychological sense may happen when challenge and ability are well balanced (Csikszentmihalyi 1990). Such activities in various musical settings provide continual feedback to the learning process. This may lead to the development of effortless attention—which means there is interaction between emotions and attention—and in collaborative projects this may lead to a *group flow* that makes the participants share a sense of empathy and makes them feel that they can rely on each other (Csikszentmihalyi 1990). In such circumstances, the individual harmonizes with the group and the project supports cohesion and empathetic synchronization. Those who quickly get into the flow achieve greater inner motivation, which is important for commitment over time (Harmat et al. 2021). Achieving flow through one's own creation is important in a pedagogical sense, too, and didactically relevant regarding *how* as well as *what* to teach.

In a digitized society, other models of learning should be offered that are better suited to sparking and supporting individual digital creation but still include some traditional skills that can be used when working with digital instruments and tools. Such a change of direction would make the music student's creative choices and ideas easier to realize in the limited time frames of school music lessons. But how can we create the conditions needed for creating music effectively in school that focus on both the process and the product? In the next section, some educational steps will be presented that will aid students and the teachers who assess their creative efforts.

A Value-Creating Pedagogy

This paper presents a model for music education activities that engages with digital tools and employs a goal-oriented value-creating pedagogy and also presents previous models of creativity that are relevant for music making. A value-creating pedagogy focuses on issues like problem solving, learning by doing, teamwork and collaboration, artifact creation, working during extended time periods, real-world interaction, value creation for external persons, iterative experimentation, innovativeness, and comprehending failures as an integral part of the process (Lackéus et al. 2016).

To promote learning, teachers need to create an environment in which students can feel safe and are encouraged to dare to take risks when they are working with their creations instead of being made to feel that their ideas may not be sufficient (Wiggins and Espeland 2012; Lindström, Ulriksson and Elsner 1999; Lindström 2006). The conditions for a creative and productive learning environment are further improved when participants become engaged in what is to be learned and when they are given opportunities to reflect on their actions and rely on their previous experience (Fautley 2005; Wiggins and Espeland 2012).

According to Fautley (2005), earlier models of musical creation inspired by Wallas (1926) have related to a step-wise creative process. Fautley himself (2010) presents an eight-step model, which describes the phases of musical composing that can be used for assessment and focuses on the creative process. Lindström, Ulriksson, and Elsner's (1999) model is based on aesthetic creation in the school subject of art, but their model can be transferred to other aesthetic expressions. Here the focus is on creative ability and the criteria for qualitative development. Previous Swedish studies on children's and young people's composing with computers (Folkestad 1996; Nilsson 2002; Wallerstedt, Lagerlöf, and Pramling 2014) show, for example, strategies such as horizontal or vertical creation, young children's ability to create form and balance, and the importance of understanding communication of the student's relevant concepts in group creation. Fautley's (2010) model also enables teachers to understand what happens when students compose in groups; in many cases this activity tends to be more

experiential than grounded in music theory. His model helps the teacher to guide students through the different steps of the process to promote their learning.

Deconstructing collaborative composing processes has a practical value: by giving teachers access to the composition processes in which their students are engaged, positive conditions are created to further the students' technical development in their musical creations. When establishing a creative process in which the goal is to promote learning, it is important to supply guidelines that are based on the purpose of the work itself and on what is expected of students and that the environment is safe for learning by testing (Fautley 2010; Wiggins and Espeland 2012). To show students the starting points of a project, teachers may use mediating knowledge and dialogues about expectations of students' performance. A value-creating model takes the student's own driving force as a starting point. A composition stimulus may also be needed to awaken the students' desire to engage with the upcoming work process and their motivation for doing so. This can be, for instance, a piece of music that is relevant for the given task, or it can be informing the pupils that their finished music pieces will be performed in school or distributed elsewhere.

The Learning Model Expandable Learning

The learning model Expandable Learning by Göran Nikolausson (Figure 4) has seven to eight steps.[1] It is partly inspired by Fautley's learning model, which highlights distinct phases in students' music creation and composition process, and partly by that of Lindström et al. (1999), which describes different qualitative aspects of creative abilities that are appropriated in a learning process that lets novices become experts. We have explored the expert perspective in Knust (2025) in which Swedish music producers and songwriters reflect about various aspects of their creative work. The interviews in that project employed criteria related to process and product, based on Lindström (1999; 2006), that we apply in this paper for developing our model Expandable Learning.

[1] The model was developed in connection with a study conducted during the period 2023/24 that investigated music teachers' experiences working with digital tools in the classroom. The results will presented in a forthcoming article.

Working with value-creating methods in school can increase students' motivation to engage in a learning process if the learning has one "outside" goal and the value-creating approach is a means of achieving that goal (Lackéus and Sävetun 2015). According to Teresa Amabile (1998), *motivation* in connection with the competencies of expertise and creative thinking is needed for creativity (Figure 3).

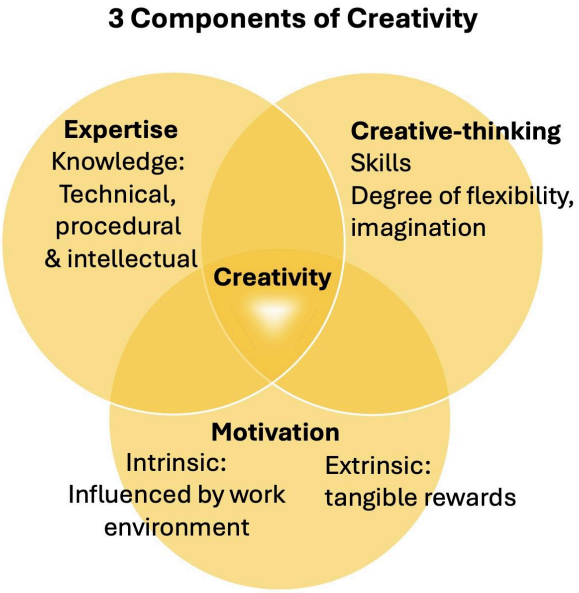

Figure 3. Three components of creativity (Amabile 1998)

Wiman (2019) describes value-creating projects that let the external world enter the school and vice versa. Working with value-creating methods to implement the goals and content of the curriculum means that students can experience becoming active citizens of their society here and now instead of only being being prepared to do this in the future. Music teachers are urged to reflect on questions concerning ownership of a music product when they are teaching students about value in music creation. Moreover, value-creating activities are inclusive because each student can contribute to the team using their individual capacity and skills (Wiman 2019). Niclas Fohlin and Jennie Wilson (2021) postulate that teachers need to have a clear structure for the work process that offers support for students and gives them advice about what to do, when, and with whom. To facilitate the work process, teachers may hand out templates that support

students during their work. It is important that students should have agency over their own process and drive the work toward the final goal with teachers' help and support. The work process should alternate between students working on their own and in pairs or groups. Depending on the size of the project, teachers may need to give students subgoals and ask for interim reports to check how the work has proceeded. Dividing the project into smaller parts may make it more manageable and offer students strategies that they can use for future creative challenges (Fohlin and Wilson 2021).

Music composition is the result of complex cognitive processes (Fautley 2010). A pedagogical model with distinct steps as presented next hence gives teachers the opportunity to understand students' creative processes and creative thinking. Figure 4 below highlights both the creative process from the idea or intention in seven steps and the development of a creative ability. An eighth step is about spreading the ideas. In a values-based learning process, fluctuations between those different steps may occur (Figures 5 and 6). All in all, there are similarities with Fautley's (2010) model when it comes to highlighting the different stages of a creative process, and with Lindström's (1999, 2006) model when it comes to the different phases in the development of a creative musical ability. The value-creating perspective stimulates motivation, which increases the creative flow.

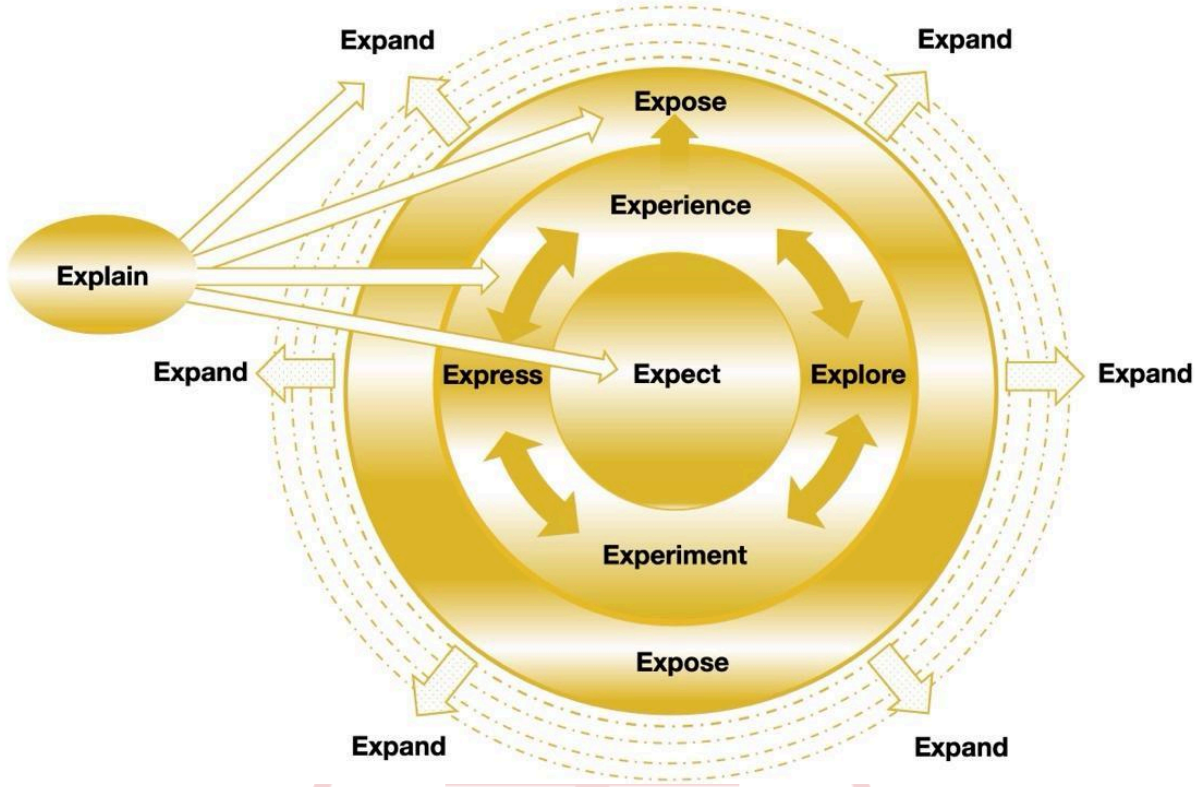

Figure 4: Expandable Learning: A value-creating learning model in eight steps (designed by Göran Nikolausson)

Expandable Learning in Relation to the Flower of Values

It is a school's mission that the teacher must work in accordance with the curriculum, conveying the knowledge and values defined in the goals of the governing documents. Learning must be evaluated based on assessment and grading criteria. In professional contexts, entrepreneurial goals may be defined by a commission from the music industry, for instance from an artist, a music publisher, or a record company. The driving force or motivation in this process relates to the development of a product for its intended recipient and that it should generate a value for oneself and for others. A harmonious value can bring about the attainment of an influence value and an economic value. An influence value can be about one's products being respected and highly valued in certain influential contexts or perhaps win an award, which can lead to economic value for oneself (cf. Knust 2025). The economic value of a product can be directed to a recipient outside the group. Music can bring enjoyment value to the creator, to a recipient, as a value for oneself, and a value for others. The process of developing an idea

will lead to an intended product or service and will generate a certain value; it is about adapting one's choices based on an inner image (i.e., an intention), or a values-based assignment, or in real life can be defined by a client or the intended recipient of the product (see Figure 2 above).

Expandable Learning: A Model in Eight Steps

Creative processes involve a series of cognitive actions on the way to a final product (Fautley 2010). An overall *scaffolding* provides a structure where the teacher follows the student's process by structuring a workflow (Wiggins and Espeland 2012). By deconstructing the process into phases, the teacher gains insight into the whole working process (Fautley 2010).

Step 1) Expect. Values to aim for: enjoyment value, social value, harmony value (see Figure 1 above).

Learning in school must be in line with the governing guidelines. A curriculum, personal intention, the teacher's scaffolding and other general or specific conditions and guidelines define what can be expected from a project (Fautley 2010). The aim of value creation can be used to give the learning process a legitimate goal to promote students' motivation for learning (Fohlin and Wilson 2021). This can be a general goal like wanting to make a difference to someone external to the school. Such goals give a direction for and a meaning to a project. It is appropriate that students are involved in determining the goals and learning content and that this involvement is made visible during the work process (Fohlin and Wilson 2021). The central question at this stage for the students is: What can we contribute?

Step 2) Explore. Values to aim for: enjoyment value, harmony value, social value.

Defining more specific goals in relation to the recipients or contexts of the project requires research, which means exploration. This exploratory phase and the three subsequent phases are about the work process itself, about approaching ideas and themes from several different starting points and making changes during the work; this can be a laborious and time-consuming process (Lindström 1999; 2006) (Figure 5). Here

the emphasis is on the interaction between one's own creation and what exists in the world around them. Being inspired by what others have done and using these means by borrowing elements that correspond to the intention is crucial to be able to make something genuine (Lindström 1999; 2006). This step of exploration is hence about identifying needs that can be satisfied through value-creating actions, services, or products from a societal perspective. It is also about exploring existing media products (Elleström 2021) for finding inspiration. This second phase is carried out before the actual work with the composing starts and is a reflection on the specific needs of a target group (see Figure 1 above). To create value for someone else, knowledge and information about what kind of needs exist must be gathered, and it is necessary to think about and decide on which needs are possible to satisfy based on the knowledge and skills the student group possesses and wants to expand (Wiman 2022). This phase may result in an overview of relevant music that already exists and relating to established music-makers. The result of this phase is defining the conditions that enable a contribution to be made to something or someone or to a particular context (Fohlin and Wilson 2021). Central questions during this stage are as follows: What kind of skills, abilities, ways of communicating and other possibilities do we have? From which of these can other people benefit? What kind of needs can we see that other people have (Fohlin and Wilson 2021)? What will we learn (Wiman 2022)?

Figure 5: The working process. The two spheres in the circle illustrate the interaction between expectation and exploration.

Steps 3, 4 & 5) Experiment, Express, Experience. Values to aim for: enjoyment value, harmony value, social value.

The testing of ideas (i.e., Step 3, Experiment) and the sorting and organizing of musical ideas that work best (i.e., Step 4, Express) will be evaluated based on criteria (i.e., Step 5, Experience). The latter refers to the quality that the project has in relation to the assignment. At these stages in the process, the media product starts to take shape through trial and testing. An important part of a value-creating learning process is making successful experiments visible but also noticing when the result is something different from what it was intended to be; the effort that lies behind the work is part of the experience. Even a complete failure can be learned from and can help to initiate new steps (Lindström, Ulriksson, and Elsner 1999; Lindström 2006). These steps of the project are about the organization of ideas that can materialize as a product and about the reflection on and evaluation of how it corresponds to what was expected in the first phase. Central questions at this step are: how can we proceed with the project to create value and what solutions do we have if problems occur?

The arrows in Figure 6 show that the action pattern in a value-creating learning process is not constant but more fluid with a fluctuation between the different steps (Fautley 2005; Linge et al. 2025). It is an experimental problem-solving work in which each step in the process is elaborated and evaluated on the way to a final product (Collins and Dunn 2011).

Figure 6: Work in progress.

Step 6) Expose. Values to aim for: harmony value, social value.

During this step, the students meet the recipients of their creative efforts, who might experience some form of value attached to them. It is crucial that recipients and producers are able to share their thoughts with each other. This feedback could help in certain cases to strengthen the pupils' learning ambitions. The central question is how the product corresponds to the student's or creator's expectation and how the product has developed, and how it is received by the recipient (Fautley 2010; Lindström 2006).

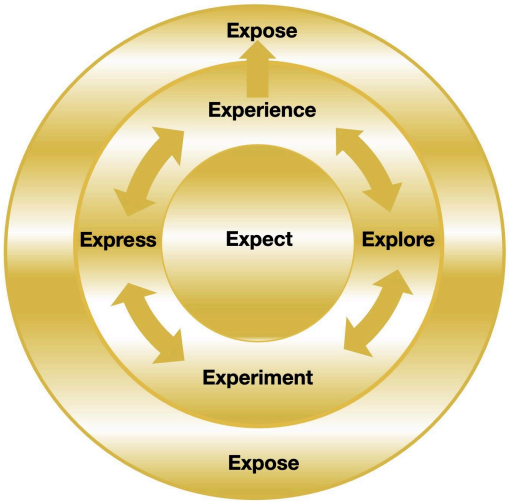

Figure 7: The finished product.

Step 7) Explain. Evaluating and assessing the project.

The model represented in Figure 4 above can work as a tool for evaluation and formative assessment in which the teacher has access to all phases of the creative process. The arrow at the top of Figure 4 shows that a creative process ends with a final evaluation of what has been created based on the expectations that existed before the expose phase. The teacher can assess whether the students' actions are conscious or if they are of a random nature. Furthermore, the teacher can draw the students' attention to important knowledge qualities in the creative process with the help of process and product criteria (Lindström 1999).

During a value-creating process, a project must be evaluated in terms of the learning, experiences, and personal development of the students. For example, the starting point for Explain can be prepared interview questions, which relate to different knowledge qualities in both the process and the product (Linge et al. in Knust 2025). The evaluation will focus on what has been successful and what could be improved. It can also be the point of departure for putting the project in a general social, economic, technological, or aesthetic context, which will be outlined in the concluding section of this article. The teacher assesses the student's explanation and understanding of their process and product, and the teacher also assesses the product (Lindström 1999). The student can explain where they want to continue further learning within the different petals of the value flower.

It can also be the starting point for placing the project in a general social, economic, technological or aesthetic context, which will be described in the final part of this article.

Step 8) Expand. Values to aim for: enjoyment value, social value, harmony value, influence value, economic value.

In some cases, a project may turn out to be so promising that allowing an anonymous audience to have access to the work may be seen as a good option, for instance a release on social media or on music streaming platforms or on a physical record. This will virtually always, however, require additional work on the project to adjust it to the technical, aesthetic, or other conventions of the chosen release medium. Also, this step can relate to the learning process itself, that is, the students can build on the knowledge they have acquired (Fautley 2010).

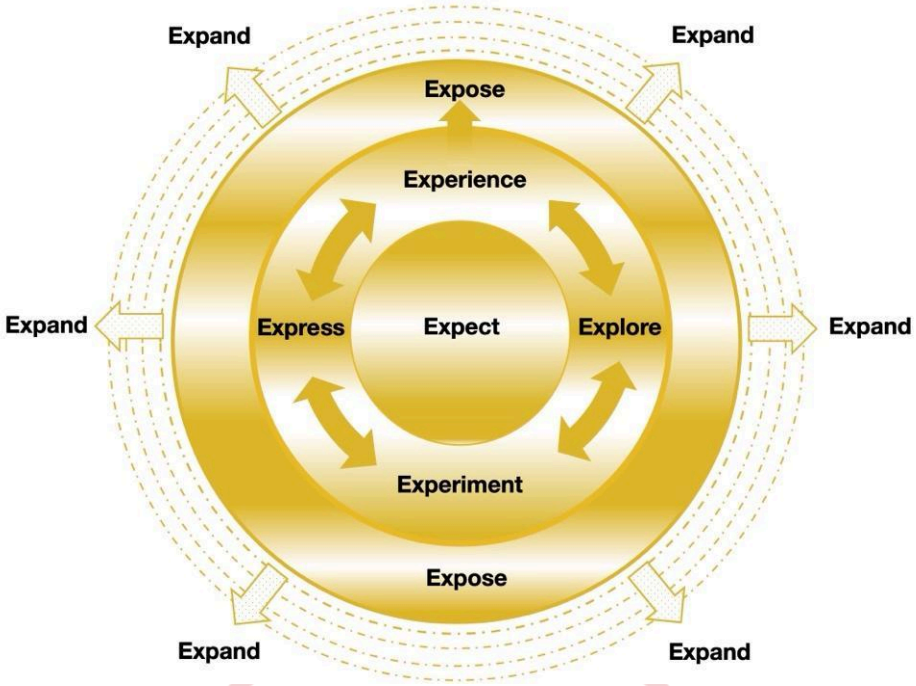

Figure 8: Expand.

Outlook: Value-Creating Music Education in Practice

We employed this model in practice in schools in Sweden and will extensively report the results of this investigation in a future article. In sum, the feedback we received from the teachers shows that there is some potential for working with digital music tools in school and that there are some benefits of the value-centered method of teaching music creation when using such tools. One major benefit is that students, individually and collectively, get the opportunity to create a piece of music, irrespective of their individual music skills and knowledge. One of the potential outcomes is that the product, a digital music file, can be published and distributed through digital media and thus exposed to the public. If this happens, students can simulate or even realize the entire production and distribution chain of a commercial music piece as it exists in the popular music industry. This offers opportunities in the evaluation (Experience)—for discussions about the different kinds of value that those pieces have, for instance commercial, emotional, social, and/or aesthetic values, and how they can interact.

At the start of our article, we noted that the music industry is a crucial point of reference in music education in Sweden. After having experienced digital music creation with their students, the teacher may choose to initiate a critical discussion with them

about the often-contradictory cultural impact of technological innovations in music production; for instance, digitization that has led to a democratization of music making and dissemination but at the same time to much tougher competition between professional music producers (Prior 2018). On the one hand, the digitization of music production has increased the number of people releasing music and has created the possibility of establishing direct contact between producer and consumer. On the other, it has not ended the era of the monopoly of big music labels and instead has led to an even stronger concentration of economic power at the top, and a constantly shrinking number of musicians that dominate the charts and take the by far largest share of global music revenues (Knust 2025). Historically, commercial music production has been drastically affected by the introduction of new technologies like analogue recording, radio, optical soundtrack, TV, digital file-sharing and streaming. As can be demonstrated by using digital tools in the classroom, many human skills can be replicated by programs and algorithms, so digital music production as we know it in 2025 may be jeopardized in the very near future as AI further enters the arena. Making students aware of human creativity and the values that may disappear when machines can fulfill the same tasks as people much more cheaply and in less time can add a critical perspective to the playful creative moments that occur in the kind of music education we have described in this article.

A fundamental critical skill that can be acquired when a value-creating perspective is applied is exploring crucial terms and mechanisms used in the digital music market from an insider perspective in order to empower the students to understand terms, social phenomena, mechanisms, and technologies that abound in the digital media age, like algorithm-generated playlists, prosumer fanbases, music streaming value chains, and so on. The terms used are, in a sense, bound to the era of digital communication technology and may soon be seen as typical of a specific historical situation that is represented by the digital music distribution ecosystems as they were established in the late 2010s. As such, those terms and the specific values attributed to them may become outdated and overused, and consequently the related concepts may disappear, for example the idea of the human being as such (Foucault 1966) or the

concept of human creativity. In connection with that, some of the values we have investigated will thus shift and transform as well.

Ethics Protocol

Approved by Swedish Ethical Review Authority (Etikprövningsmyndigheten).

Conflict of Interest

Nothing to declare.

AI Disclosure

Nothing to declare.

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