

Musical tools in collaborative learning project.

– The music teacher and the band in a high school musical as a case.

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I would like to focus the following topics in the presentation as well as in the discussion: Mediating tools for musical learning, continuity line in a written culture, culture psychology, imagination and creativity in musical learning, in a socio-cultural perspective as I need more and deeper knowledge in order to complete the research at the level I'm aiming for.

Background and research questions:

The doctoral thesis consists of two case studies, and in case study one "Musical learning in a cross-cultural setting - A case study of Gambian and Swedish adolescents in interaction", the main aim was to explore in what ways adolescents acquire music, and to analyse this in a context of cultural identity. The primary research question was: What characterizes musical learning in a situation where the intention is that young people from different cultures learn in interaction with each other? In that study different tools for learning music were discovered. In case study two the main aim is to explore in what way ninth grade Swedish students in a musical project acquires musical knowledge, and what tools for learning they use in that cultural context. The primary research question was: What tools for musical learning are made visible in high school musical band aiming to encourage collaborative learning among students and teacher? In order to understand the students there was also focus on what tools the music teacher use when teaching a high school musical band. Here the primary research question was: How does a music teacher teach students to write music and play in a band in a music project aiming to encourage students to create a musical?

Design of case study two:

Based on a socio-cultural perspective and with the approach of ethnomusicology, a design of field studies and interviews with the students and their music teacher was constructed.

The Field studies took place in the regular schedule of the students. I was well known among both the students and the teacher, as I am a former teacher at the present school. The method used was field notes, filming and interview. The context was Swedish ninth grade students and their music teacher in music ensemble playing music, creating music and lyrics as well as teaching music; this in cooperation with the teacher and each other. The students' musical lessons were filmed, once or twice a month for a period of one school year. To grasp the intent of the music teacher and the students, interviews were conducted with the music teacher in connection to the field studies and with the students in the end of the field studies. The interview with the teacher was carried out

as an informal conversation made directly after some of the music lessons and as email-conversations where the music teacher got a short presentation of what tools the analysis shown that he used when teaching, and what words he used in conversation with the students; he corresponded back with an email with his thoughts upon the information. Interview with the students were also performed, where bits of the films provided a base for a group discussion regarding writing music and their musical learning.

Analyse

In the field studies notes were written, from an insider- as well as an outsider perspective, as well as with the perspective of emic and etic. The meetings with the students were filmed for later analysis and the field notes functioned as a way to make visible my own preconceptions.

The films were analysed according to the following: In step one I transcribed all the films to text, which was done by using the software programme Transana. Step two was to find the tools for learning the students used. At this stage earlier research provided great help to make the tools visible, although I was very careful not to assume what tools was supposed to appear. The transcription was marked continually with each tools code (see appendix one) as they appeared. In this step I watched the film and the transcript simultaneously. In the third phase of analysis the material was transformed into a whole. This was accomplished by that field notes, interview transcription, video transcription, and coding were transferred into a narrative that described how the music teacher taught and how the Swedish ninth graders learned and taught others music. Working through these different phases, it was possible to analyse what tools for musical learning that were used to what extent by the participants in the study.

In this part study quantification was not used, which was the case in part study one. Instead I relied on the first study in the research project concerning adolescents' use of tools for musical learning, at the same time as I was carefully looking for new tools. For example it became obvious that some of the tools for learning that showed to be less apparent in study one, were more common when Swedish students interacted with each other. For example both the teacher and student used body contact to show how to play a chord on an instrument, they moved the fingers to the correct position at the instrument. This tool was more common in study two and three compared to study one.

During this process the ambition was to view the material with an eye as objective as possible, and that none of the different perspectives were favoured; the use of codes in the analysis was helpful in handling this aspect of the process. The codes also allowed the researcher to bracket the initial expectations of the empirical data.

Theory:

The theoretical points of departure are based on socio-cultural theories of learning, with a focus on how cultural tools are used in learning and teaching processes. As the concept of *culture* has become central in the present study, I would like to start with a definition of the term that is used in this text. Bruner (2002) states that culture is "the weave of meaning" through which people interpret their experience. Culture by that consists of figures of thought as well as linguistic expressions shared by a group of people (Lundberg & Ternhag, 2002). Such a way to define culture stems from social Anthropology. Lahdenperä (2008) emphasizes that the view of learning, knowledge and

education is bound by culture, in the same way as all other concepts in our social world. The Anthropological concept of culture stands in contrast to the aesthetic concept of culture. The latter focuses on cultural artifacts and assumes a certain kind of knowledge. Based on a social Anthropological definition on the concept, culture includes systems of shared ideas, systems and concepts, rules and meanings that are underpinned and expressed in people's various ways of life. With that definition, culture refers to what people learn, not what they do or create. In this presentation I agree with this Anthropologically inspired way of defining the concept of culture.

Musical learning and the social context

With a sociocultural theory as starting point, the fundament is that human beings learn by interacting with each other. Seen from this perspective, learning has several directions, and involves both communications between people, and inside the individual with the person's earlier experiences. These relationships between and within people create the base for learning in a specific time and place (Vygotsky, 1978, Dysthe, 2003). Psychological processes are in constant change and these take place in progress at the same time as learning is made visible. This means that the psychology behind how learning takes place can only be understood if the origin and history of a human being is determined and mapped (Vygotsky, 1978). When studying knowledge and learning, culture cannot be ignored as thinking is embedded in culture (Rogoff, 1990). Also Säljö (2000) places learning in a cultural context and underlines that knowledge and learning are created through communication with others. By using language it is possible to describe and problematize what is not physically present. Holgersson (2011) in turn illuminate that students in higher music educations use different cultural tools depending on which genre of music they play. Earlier experiences are inevitably a determining factor when it comes to how musical learning will take place in a specific moment and setting. The researchers underline the connection between the learner and the master, where the individual human beings learn by borrowing cultural tools from the master. This creation of meaning and ability takes place already within the child during interaction with others (Vygotsky, 1999; Vygotsky, 1978). Vygotsky (1978) also stresses the meaning of action as he argues that an intellectual development takes place as speech and language are mixed with practical action. The progression of thought and language are not parallel, both grow by in relation to each other and both are sometimes more, sometimes less evolved than the other. Thought and language can exist at the same level for some time, and even melt together, but they will be separated (Vygotsky, 1986). Vygotsky (1999) claims that systematic learning plays an integral part of the development of young people. Activities children do together develop their minds more effectively, than activities they do on their own (Vygotsky, 1986).

Tools

This study makes no difference between intellectual and physical tools as they both mediate musical knowledge as well as learning. Instead, focus is placed on which tools young people in the study use and why they use them. As stated above human beings create knowledge in interaction with others. Learning is created and exists within a person, but through communication with others. The conditions for knowledge exist in the surroundings as well as within the person – learning is dependent on a person's background and present conditions. Säljö (2000) states that thinking and awareness exist within the person, but the thinking gets in contact with the world around the individual with the help of various physical and intellectual tools. In a socio-cultural perspective, it is seen as fundamental that tools mediate the world to people in concrete

situations. By studying tools that people use, it becomes possible to understand human learning and thinking. As language, culture and social factors play a big part in thinking and learning, it is unreasonable that thinking and learning would be the same in different cultures (Säljö, 2000). In this study about young people's musical learning, it appears that youths use several different mediating tools, both consciously and unconsciously.

Knowledge in itself and how it is created is dependent on the culture where the student and the student's interaction with others take place (Vygotsky, 1978; Säljö, 2000). What this knowledge is and how it can be achieved seem to be different in oral and written cultures (Ong, 1990/2007). Knowledge develops parallel at two different levels, in social interaction and in the mind of the human being. Through this process, the mind is developed and the knowledge is made your own. The child imitates the adult's use of tools, and when the child grows up, he can use several learning models to solve a problem. Mediating tools are used to understand and to learn when interacted with a thought process (Vygotsky, 1978; Säljö, 2000). There is a difference between knowledge created within an oral culture, and knowledge created within a written culture. There is also a difference between which knowledge that is valued the most, as it is the knowledge which is harder to achieve that gets higher value in each culture. The cultural context of a person is therefore influenced by what is considered as important to remember (Cole, 1996; Ong, 1990/2007).

Musical creativity in young people

According to Vygotsky (1978) there is a difference between the imagination of a child, youth and an adult. The imagination of the adult is more developed and richer since the adult carries more experiences that create more possibilities for the imagination.

Results:

The preliminary results of case study one imply that the Swedish adolescents used tools that are connected to a *literate culture* (Mars, 2012). The tools were categorized as *repetition, to explain, to write down, and to watch*. Furthermore the tool named *Showing by using body contact* became more visible in case study two. The students in the musical project mimic the music teacher when teaching someone else a music piece. Further more the students need written notes and/or chords and text in order to remember how the music should sound and how their instruments are to be played. Additionally, the music teacher constantly referred to the written artefacts when teaching. According to Ong (1990/2007) knowledge in a written culture is remembered and developed by written text. In a written culture the written text operates as continuity line in the words of Säljö (2000), the written text is the mediating tool for knowledge. In the presented case studies the written has shown to be of the greatest importance for the Swedish students' musical learning and remembering.

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Appendix 1

Kod Verktyg för musikaliskt lärande

lage	Lär andra med hjälp av gehör
lsge	Lär sig själv med hjälp av gehör
care	Använder sig av call and respons
labe	Lär andra genom att berätta/förklara
lssa	Lär sig själv genom samtal/lär sig själv genom att berätta/fråga
laur	Lär andra genom att upprepa
lsur	Lär sig själv genom att upprepa
labd	lär andra genom att bryta ner i mindre delar
lsbd	Lär sig själv genom att bryta ner i mindre delar
lagf	Lär andra genom att förenkla
lsgf	Lär sig själv genom att förenkla
lsgh	Lär sig själv genom att härma
late	Lär andra med hjälp av skrift/noter
lste	Lär sig själv med hjälp av skrift/noter
last	Lär andra genom snabbt tempo
lsst	Lär sig själv genom snabbt tempo
lalt	Lär andra genom långsamt tempo
lslt	Lär sig själv genom långsamt tempo.
lavi	Lär andra genom att visa
lsvi	Lär sig själv genom att visa
lsgs	Lär sig själv genom att se på hur den som kan stycket gör
laks	Använder kroppsspråk för att visa
lakf	Lär andra genom kroppsförståelse
lsle	Lär sig själv genom kroppsförståelse
tnvi	Tar i någon för att visa
um	Uppmuntran
fm	Förmaning