

Music in an integrated curriculum

Why doesn't everybody do it?

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After giving a four-week presentation to year 9 students on the history of western "classical" music, I found that I needed to integrate other subjects into these lessons in order to ensure that the students were grasping the broader perspective. Given the miniscule amount of lesson time music receives compared with core subjects, I found this to be very impractical and I asked myself, "Why don't music teachers plan lessons together with teachers from other subjects in order to achieve this integration?" To find the answer to this question became the objective of my research.

To achieve this objective, I have interviewed music teachers with different backgrounds, asking about the practical problems they experience when integrating music with other subjects. I have then analysed the results of this information in connection with the very limited amount of research and literature relating to integration of music with other subjects in Swedish upper compulsory school. This analysis highlights among other things the methods of interdisciplinary teaching used by this group of teachers.

My study has revealed that teachers often experience problems finding connections between music and other subjects, in some cases this can depend on the age of the students. Another difficulty discussed is finding a balance between achieving everything in the music curriculum and having a broader perspective on the concept of knowledge.

I have found that most methods of integration are a step in the right direction, as long as the intention is for better learning, and not for the sake of integration.

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1 Introduction

Quentin Tarantino's film *Pulp Fiction* was groundbreaking and created a new genre of films which intertwine multiple storylines and unite them into a cohesive, absorbing tale. This particular film deals with four separate stories, each with its own characters, presented in a jumble of time and place. When described in this way, it is difficult to imagine, if one has not seen the film, how viewers would not become completely confused and frustrated by this movie. However the key is in the connections. During the film, little by little, information is fed to the viewer which helps her to piece together the jigsaw puzzle. Each character and each story is relevant to the other.

If one were to compare a student's day at school with Pulp Fiction, one might see the parallel between how information is, in the beginning of the film, presented to the viewer and how information is presented to the student. The student is also exposed to interrupted fragments of information which seem irrelevant to each other in time and place. Should we not also assume that students could become confused and frustrated by this real-life jigsaw puzzle?

A solution for this would be for teachers from different subjects, including music, to integrate their lesson plans in a way which shows the student how each piece of the puzzle fits together. Yet, despite the research which suggests that an integrated curriculum provides better conditions for learning, some music teachers still like to plan their lessons alone.

In this paper I wish to investigate the possible cause for why certain music teachers prefer to not plan lessons together with teachers from other subjects. In order to bring readers up-to-date with the issue, I will provide a brief overview of interdisciplinary styles of teaching, and then a short commentary on the Swedish upper compulsory music course plan and the concept of teacher work groups. This is followed by literature about how people learn. Finally, I will introduce the data I have collected through interviews with three music teachers, all with three very different teaching backgrounds.

Firstly, I will begin with the story of a personal experience which introduced me to the problem area.

1.1 My motivation

I will soon be completing the one and a half year teacher program which is offered to students here in Sweden who are already qualified in the subject they wish to teach. I received my Bachelor of Arts in Music in my homeland, Australia, and will soon be a qualified upper compulsory school music teacher¹.

During my practice placement, I gave four weeks of lessons about the history of western art music. I felt it necessary to give the students background information about history, literature and art from the time period in order to explain certain musical concepts. By offering them this background information, I felt it would not

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¹ In Sweden this means grades 7 to 9, approximately ages 14-16

only make the details of the lesson more interesting and easier to remember, but also help them understand the large role music has had in society throughout history.

Yet I quickly became frustrated with how little time was left to have a reasonable discussion about the actual music and musicians. Considering the subject music is given only 40 minutes per week at most Swedish upper primary schools, I thought a solution would be for the history, language and art teachers to in future plan the unit together with the music teacher. I felt that this would not only allow more time to listen to and analyse music, but also give the students an opportunity to learn about the topic through more than one subject, thus allowing a broader perspective and a chance to reflect

The human brain craves patterns, repetition and context in order to store information for the long term (Dryden & Vos, 1994: 129). It sorts information into compartments by way of association and previous knowledge, and rejects by impulse information which is abstract and irrelevant. Introducing opera to grade nine students is always going to be challenging; to many it appears contrived and irrelevant. In an attempt to overcome this, one could introduce Mozart's opera "The Marriage of Figaro", for example, after learning in social studies about the French Revolution. In this context, we could discuss the opera's extreme controversy for its use of common-folk characters instead of Italian aristocracy or Greek gods. Suddenly, the opera's role in history develops in the child's mind and it gains relevancy. It could possibly even be considered interesting!

An interdisciplinary approach to teaching aims to show the connections between each subject. When learning about a certain people's culture, for example, students could learn about the historical events, music, art, literature, philosophy, dance, theatre, and the mathematic and scientific discoveries of that period. The same approach can be taken when learning about Islam, the American civil rights movement, and global warming.

A clear message about society's value of music as a school subject is given when one considers the amount of time allocated to music per week compared to core subjects. The Education Act stipulates that of the guaranteed 6665 hours instruction in compulsory school, the minimum amount of music hours comprises only 230 hours (Skolverket [www]). A broader view, in school education, of the lust for life-long learning and forms of self-expression seem to me to be secondary to preparing the student for the workforce.

I therefore believe that showing the connections between music and other subjects in the broader world perspective, not only provides a better learning environment, but would also gain the subject increased relevance and status in the eyes students, teachers and even parents. To develop a deeper understanding of music is to understand an important part of the world we all live in.

1.2 Objective

I believe that the traditional boundaries defining school subjects into separate bundles of knowledge should be re-examined and opportunities for better learning welcomed by planning music lessons together with other school subjects. The aim of this

research is not to make comparisons and generalizations, but rather to gain insight into the different everyday experiences of three music teachers in this specific situation. Through analysis of these insights I hope to reveal rarely discussed aspects of teaching from a Swedish, musical, upper compulsory school perspective.

Drawing from the theories I have read about how people learn, I believe that there is a strong case for teachers to integrate the curriculum. Therefore I pose the question: Why doesn't everybody do it?

It is the objective of this study to form a better understanding of this phenomenon by firstly sourcing earlier research and related literature, and then to gain firsthand information through questioning the music teachers themselves:

- Are there situations when integration between music and other subjects is suitable?
- Are there situations when integration might not be suitable?
- Does integration help you to achieve everything in the music course plan?
- To what extent should teachers make connections for students?

With the answers to these questions I aim to analyse the qualitative research and present to the reader the results of this analysis.

1.3 What this study isn't about

When explaining what my research paper was about, a number of people replied excitedly how interested they were in the effect listening to music has in assisting learning. Studies have shown the positive results from music to listening on study performance and accelerated learning, especially the music of Mozart – hence the name the *Mozart Effect*. While I find this field of study very interesting, I consider passive music listening a superficial view of music's integration with other subjects. That which I wish to concentrate on is the *subject* music and its equal status with other subjects as a field of knowledge. I aim to investigate the practicalities of planning music lessons together with teachers from other subjects in order to present a logical connection of knowledge to the student, and not the effect listening to music has on *learning other* subjects.

2 Background information

2.1 Definitions

An integrated curriculum: what does this peculiar term actually mean? Curriculum reformers have been wrestling with the concept of integration for over three decades (Barrow & Milburn, 1990: 151). There are today many pedagogical institutions who research these methods, and a variety of schools who claim to practice their certain brand of integrated curriculum. Nevertheless, the term "integration" is still immensely broad and difficult to define. A definition offered by *A critical dictionary of educational concepts* is "teaching by themes that cross disciplinary boundaries" (Barrow & Milburn, 1990: 151). A second account, from *Termlexikon i pedagogik, skola och utbildning*, tries to pinpoint a certain school age as a defining factor: "programs of study in, for example, upper secondary or upper compulsory when the

different courses and periods hang together in a meaningful way" (2006: 182)². Shoemaker's explanation found in Lake's report ([www]) gives more detail:

...education that is organized in such a way that it cuts across subject-matter lines, bringing together various aspects of the curriculum into meaningful association to focus upon broad areas of study. It views learning and teaching in a holistic way and reflects the real world, which is interactive. (1989: 5)

My understanding of this concept is the following: the pedagogic result of lessons which have been planned together by two or more teachers of different subjects in order that the students may see the connections and relevance between the subjects in question, thus forming a deeper understanding and appreciation for the subject matter. The terms *integrated* and *interdisciplinary* are, according to Lake ([www]), used synonymously when describing curriculum design. This report will employ the terminology "integrated studies/curriculum", "interdisciplinary studies/curriculum" or "to plan lessons together with teachers from different subjects" in order to refer to the exact same concept.

Heidi Hayes Jacobs is a professor at Columbia University's teacher college in New York City, USA. She has been researching interdisciplinary methods for 30 years and cites in *Interdisciplinary Curriculum: Design and Implementation* that four slightly different strands of interdisciplinary teaching are claimed by researchers in the field to exist: crossdisciplinary, multidisciplinary, pluridisciplinary and transdisciplinary (1989: 8). Yet Jacobs finds these definitions cumbersome and has developed, through extensive observations, the following categorisations (1989b: 14-18) which she believes better describe the practical characteristics of each approach to curriculum design:

Discipline-based content design

This is the traditional and predominantly occurring approach to school curriculum, where subjects are planned and presented separately from other subjects.

Parallel discipline design

When planning lessons, teachers intentionally schedule topics covered in order to coincide with the same (or roughly the same) topic being taught in another subject. The only consideration for integration here is the timing of each unit of study.

Complementary discipline units or courses

Teachers from subjects whose content complement each other - for example, music and language arts, or history and geography - plan lessons together in order that the combination of the two (or more) subjects may offer deeper insight for the student. This design also concerns timing of the schedule, but also requires that the teachers reflect upon the content of the theme.

² Author's own translation (from Term lexikon in pedagogy, school and education) from Swedish: studieprogram i t.ex gymnasieskolan eller högskolan där de olika kurserna och momenten hanger ihop på ett meningsfullt sätt. (from Term lexikon in pedagogy, school and education)

Interdisciplinary units/courses

The content in *all* school subjects is based on the same theme, designed to last days, weeks or perhaps an entire term. The boundaries between subjects are not reduced; rather the links between them are promoted.

Integrated-day model

For the duration of the day, curriculum requirements are put aside in preference for student interest-based learning. To prepare for these ambitious theme-days, teachers plan lessons together centred around topics and problems which "emerge from the child's world" (1989: 17).

Complete program

A radical break from traditional subject-defined education, where all lesson planning in the school is integrated and curriculum requirements become permanently based upon the student's interest.

The next chapter of this report will present the Swedish compulsory school curriculum and the compulsory school course plan for music, and discuss to what extent I believe they encourage integration with other subjects.

2.2 Course plan for music in upper primary school in Sweden

Mourau and Wretman (2005: 253) interpret the latest Swedish compulsory school curriculum, Lpo 94, as focusing less on subject material and more on the concept of *knowledge*. I see this as attributable to the decentralisation³ of the Swedish school system and the shift from rule-based control to goal-based control⁴ in the beginning of the 1990's. This in turn affected both how the curriculum for music and for the school in general describe goals to be achieved rather than specify precisely which material is to be used and exactly how to assess knowledge.

Göran Linde (2005: 37) observes that with each update of the school curriculum, there is a further emphasis on interdisciplinary teaching. An example of this emphasis on both the quality of knowledge and integration can be found in Lpo 94 in chapter 2.2 *Knowledge*:

- Teachers should endeavour to balance and integrate knowledge 5 in its various forms.

The following excerpt from Lpo 94, under the chapter 2.8 Responsibility of the schoolhead, illustrates how the principal of the school must ensure an environment where an interdisciplinary curriculum is possible by guaranteeing that:

- interdisciplinary areas of knowledge are *integrated in the teaching of different subjects*. Such areas cover, for example; the environment, traffic, equality, consumer issues, sex and human relationships as well as the risks posed by tobacco, alcohol, and other drugs

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³ Basically, this means a shift from governmental to communal responsibility so that the individual school and it's participants now have more freedom to interpret the steering documents and more responsibility for deciding the best possible methods for their school

⁴ Author's own translation. In Swedish: regelstyrd vs. målstyrd

⁵ Author's own emphasis to highlight important areas

One can find many examples in the curriculum for music in Swedish upper primary ([www]) of a drive towards integration between music and other school subjects, such as that the teacher ensure that the students:

- become familiar with the *interaction between music and other areas of knowledge* and develop the ability *to combine music with other representational forms* such as pictures, text, drama, dance and movement

A second, even more detailed example of this reads:

- The point of contact between music and other subjects can give pupils the opportunity to choose their own personal route to a knowledge of music. The subject can also serve as a concrete starting point and support for learning in other subjects, as well as for attaining the overall goals of the school. The close relationship with languages supports the pupil's development of independent understanding, knowledge and skills in music. Music and language both build on audio-communication and have many elements in common. Music is also closely related to mathematics, since many of the subject's concepts, covering everything from timing to keys and chords, are mathematically defined.

In the following three examples, this same course plan for music describes extensively how teachers should make students aware of the relevance and importance of music in learning about the world around them:

- In today's international youth culture, *music and text are integrated*, often in combination with *pictures*, into new means of expression which reflect and influence the evolving individual's *outlook on life*. The subject places the experience of music into a *new and broader context*. This enhances the ability to analyse and evaluate musical experiences, to see *the connections between different subjects* and cultural differences...
- Music is also a language that *transcends boundaries* and promotes understanding and tolerance, as well as *facilitates integration* and co-operation in school and society.
- The *interdisciplinary nature of music* can provide pupils with opportunities to work together singing, playing music independently of ethnic and cultural background and *transform the subject into a socially important instrument in the school.*

2.3 A brief word about teacher work groups in Swedish upper primary

The aforementioned decentralisation of the Swedish school system brought with it huge reforms including the concept of work groups of teachers, or "arbetslag". It is, according to the school curriculum Lpo 94, one of the school principal's responsibilities to see that these work groups are adequately equipped to function. These work groups organise themselves into teams, each with different tasks. Such tasks can be, for example, for teachers to join together to discuss problems regarding the care of students or improvements in working environment. One such task could also be to organise theme activities together spanning a number different school subjects.

While these work groups have been found to work highly successfully, situations where teachers from different subjects plan together can be met with very differing experiences. I will discuss the possible reasons for this in more detail during my result analysis. For now I shall take a look at some important theories about knowledge and how people learn in order to support my case for an integrated curriculum.

2.4 Theories about how people learn

"The more you link, the more you learn" – Lozanov⁶ (Dryden & Vos, 1994: 313)

The pedagogic works of American philosopher John Dewey have been a fundamental inspiration for school reforms all over the world. His 1916 work, *Democracy and Education*, is of particular importance for his emphasis on a stimulating and practical school education; one which encourages critical thinking in students, in all aspects of knowledge, with the goal that they become attentive, participating members of a democratic society. One of the most significant messages from the book is for teachers to show the relevancy of the subject in question to everyday life. Dewey (1916: 163) feels that traditional classroom teaching:

- is not motivated and impregnated with a sense of reality by being intermingled with the realities of everyday life. The best type of teaching bears in mind the desirability of affecting this interconnection. It puts the student in the habitual attitude of finding points of contact and mutual bearings.

Franzén (1996: 64) further cites what can be interpreted as Dewey's push towards integration:

- The deciding reason why today's school cannot constitute a natural social entity is because that element of mutual and productive activities is missing.

Maria Montessori also believed in the epistemological importance of connections and an outlook on the whole to assist learning. The Montessori Method, founded with the opening of the first Montessori school in Rome 1907, has its basis in the belief that all knowledge must be tied together into a larger perspective. This is evident in the practice of "stories", interdisciplinary themes designed to stimulate the students' curiosity and begin a life-long love of learning. An example of a "story" which is one of the five "great lessons" in Montessori school is the forming of the universe and the earth in which all subjects, including music, are weaved in to the narrative (Ahlquvist, Gustafsson & Gynther, 1996: 164). Motivation for this method is summarized by Lillard in the following excerpt (1996: 55):

- Giving the children the universe as a context for their further study solves the problem of the children's accumulation of isolated bits of knowledge with no way of relating one to another.

An exciting and controversial pedagogic theory is Howard Gardner's argument that there are seven different types of "intelligences". Contrary to a common misunderstanding of this theory that each person is born with just one of these inherent talents and thus branded for life, Gardner's premise is that we all, to varying

⁶ Authors own translation: Ju mer man länkar samman, desto mer lär du

degrees, own each of the following seven intelligences: visual/spatial, musical, verbal/linguistic, logical/mathematical, interpersonal, intrapersonal, and bodily/kinaesthetic (Lindström, 2005: 227). My justification for bringing Gardner's theory into the debate is because of his assertion that there always exists more than one path to introducing a student to a certain topic. His theory is that teachers should present subjects from different angles, appealing to different intelligences, so that there is the best possible chance for the student to fully comprehend that which is to be learnt. It is a matter of offering a variety of available tools in order to solve a given problem.

I personally can see much worth in his theory and would take it one step further into the field of integration. Instead of just one teacher planning in this way, why not allow a teacher work group to plan the different paths into the topic? This would ensure integrity of knowledge as well as unite different parts of the school in a project.

Heidi Hayes Jacobs considers the traditional organisation of school subjects as an outdated and unrealistic alternative. She observes that school is the only place where different fields of knowledge are presented as separate packages with no connection to one another. We do not experience, for example, music or physics in separate 40 minute blocks in our daily lives, so why should we be teaching in such a way? Jacobs explains this further (1989a: 5):

- It is not that schools should avoid dealing with specific disciplines; rather, they also need to create learning experiences that periodically demonstrate the relationship of the disciplines, thus heightening their relevancy. There is a need to actively show students how different subject areas influence their lives, and it is critical that students see the strength of each discipline perspective in a connected way.

One of the theoretical foundations of this study is the research of Kathy Lake who has cited Humphreys, Post and Ellis (1981: 11) in support for interdisciplinary studies:

- It is taken for granted, apparently, that in time students will see for themselves how things fit together. Unfortunately, the reality of the situation is that they tend to learn what we teach. If we teach connectedness and integration, they learn that. If we teach separation and discontinuity, that is what they learn. To suppose otherwise would be incongruous.

Roger Säljö, a professor in pedagogic psychology at Gothenburg University, supports this argument (2000: 141) by explaining that school is considered a place where one learns "general knowledge" which the student then is to adapt to reality. Säljö concedes that knowledge, however, is "situated" and therefore must be presented in context.

2.6 The case of Peter's school

Planning for this research paper originally included a fourth interview candidate, a teacher at a public upper secondary school. With end of year musical engagements, however, "Peter" was understandably unable to make a time for a face-to-face

⁷ False name

interview. I was keen to learn more about the school where he worked and, fortunately was able to discuss subject integration with him over the telephone.

This school is renowned in the city it is situated in for the pupil interest-centred programs it offers (for example, skate-boarding and fashion design) as well as for its totally integrated curriculum. The school's philosophy is an example of *problem-based teaching*⁸ (Åberg, 1999: 78). This means that students get to work on a project plan, which is inspired from a source offered by the teacher. Through inspiration of the source, for example a film, the students decide what problem area they are interested in and which questions to pose. The students have more responsibility for their own study progress than in traditionally organised schools.

Peter says that he has planned lessons together with teachers from other subjects for years - even before the school "cleansed" its personnel of "non-integrators". According to Peter, it is best for the students. Additionally, teachers at Peter's school are allowed extra time to plan lessons together. Peter immediately names maths and physical education as the most difficult subjects to integrate with music, but believes that an integrated curriculum is the best approach for a student's learning and, because of this, it is important that the entire school is united in this strategy. The change in the school's philosophy meant no real change for Peter, who has been integrating music with other subjects for years.

3 Three interviews

3.1 Method and material

As stated earlier, the aim of this study is not to make quantitative comparisons, but to describe phenomena. Due to the choice of empirical design, and the selection and number of interview candidates, it would be impossible for me to draw conclusions about music teachers in general from my data. Rather, I have aimed to gather information in order to formulate a better understanding of how lesson planning works in practice and to speak to music teachers about their attitudes towards integration.

This study commenced by sourcing related literature and earlier research. As stated previously, my intention was to carry out this research about interdisciplinary teaching from a Swedish, musical, upper compulsory school perspective. I met obstacles from the outset; the amount of Swedish literature and research relating to integrated curriculum in upper compulsory music classes is very limited. The search criteria broadened to include, amongst other examples, literature based on studies in USA focusing on all grades and all subjects.

In order to give validity to my study, I have undertaken an empirical study. I wished to find out how integrated curriculum works in practice to be able to then investigate the problems which music teachers can face. As the questions were complex and I wanted to find out how people experience everyday situations I chose to perform discursive interviews. Stukát refers to this method as *qualitative research* (2005: s32). A quantitative approach could be to send out questionnaires to the different teachers,

⁸ Authors own translation: Problembaserat lärande. PBL

thus allowing opportunity for more candidates in the research. However, I found the method of interview most appropriate because I wanted to have an interaction with the candidate. A clear advantage with an interview situation is that the interviewer can interpret the candidates attitude to the questions and adjust the delivery of the questions in order to get the most helpful and natural response possible (Stukát, 2005: 39). I, as the interviewer, was then also able to follow up the respondents' answers with further questioning.

A second reason for choosing interview design over questionnaire design was because I have never researched before and this field of study is new to me. Stukát (2005: 34) suggests that qualitative research methods are very suitable for this purpose. By interviewing the candidates rather than sending fixed questions, I believe that I was able to glean more information about the actual questions I wanted answers to. This pilot study can then lead to a quantitative study to complement the results of this research. (Stukát, 2005: 34). The reader may refer to chapter 4.2 for suggestions of possible future research projects inspired by this project.

The method of interview was semi-structured (Stukát, 2005: 39). I had a checklist of questions which I wanted answers to (see Appendix: Interview question checklist) but I let the interviews flow naturally like a conversation so that questions would follow a relevant sequence. I felt this would be the best way to encourage genuine answers from the respondents. A disadvantage with this method is that it is easy to get sidetracked into interesting yet unrelated topics; a particular concern considering that one needs to listen to the interviews in their entirety in order to transcribe them. Another possible weakness of using the semi-structured interview method is that answers can not be as easily viewed as scientific comparisons. If I had used a strict interview structure it may have been easier to compare how each candidate had answered each question. This, however, would assume complete knowledge of which questions to ask which, as noted above, actually developed further during the course of the interviews.

A possible concern may have been my competence with the Swedish language. Although I am proficient in Swedish and the goal of interviewing is that the candidate's responses will carry the weight of the conversation, my first language is English and I feel it could have strained the interviews somewhat. I found after transcribing the interviews that sometimes it seemed that the candidates did not fully understand my question, and I did not realise this at the time of the interview. I conducted the interviews in Swedish as this was the first language of all of the interview candidates and I felt that it was important that they were able to express themselves unhindered.

An advantage of being a single writer of this research paper was that I was able to have full control over the entire process. I chose to write by myself as I wanted to write in English and because I wished to write about something practical with music in focus. Both of these reasons made my selection of co-writers narrow. A disadvantage of writing alone is that during interviews a second person would have been able to assist keeping focus and taking notes. A second member could have assisted in formulating ideas and writing the report.

Potential for improvement in my research could have been to conduct interviews only with music teachers in public, upper compulsory schools. A second improvement would be to have complimented my research with participatory observations. By observing the planning in practice, I might have received a closer insight into the practical problems which can occur when teachers plan lessons together. There is always risk that interviewees may not wish to reveal the entirety of how they experience a certain situation, or that their responses are coloured by subjectivity. (Stukát, 2005: 49)

The interviews were recorded using a small mp3 recorder. I have transcribed the interviews and translated quotations into English myself.

3.2 Selection and background of the interview candidates

The total amount of interview candidates is too few to be able to generalise their responses to music teachers universally. The result, therefore, can only represent the views of the interviewees themselves. The reader may also note that ground work for the research paper occurred in final months of the year during the preparation for Christmas, a notorious time for music teachers to be preoccupied with end of year festivities. This was a contributing factor to the limited amount of interview candidates. Given the scope of the study and the time allocated, I feel that the results from the data are an adequate introduction to the field.

To avoid ethical complications, I have chosen to keep the identity of the informants anonymous. I have therefore devised a system of identification for each informant. Their name comprises first of the two final digits of their year of birth, the system of school (i.e. public or private) and the grades in which they teach. I shall now give a brief background of the interview participants and their respective schools, and a description of how they came to be involved in this study.

55Pub7-9 is a music and French teacher at a compulsory school, the same school where I had my practice placement. This is how I came in contact with the informant. 55Pub7-9 has worked as a teacher since 1982, and it is now her fifth year at the school.

79Pub10-12 works as a music and English teacher from a public upper secondary⁹ in the same city. He has worked there for 2.5 years. I was given the contact details of 79Pub10-12 by one of his colleagues who suggested that he had some experience in subject integration with music.

In order to find more interview candidates, I emailed a selection of schools in the city's area explaining the objective of my research and requesting assistance from interested music teachers, with the promise of tasty cinnamon buns as a reward. This is how I made contact with 70Mont1-4 from a Montessori school, in the same city. 70Mont1-4 is a music and lower primary Montessori school teacher.

I made contact with one of my interview candidates, "Peter", through a classmate. Peter was unfortunately unable to make a time for a face-to-face interview, thus it

⁹ In Sweden, upper secondary school involves grades 10–12.

became an impromptu interview which took place over the telephone while I made notes. I felt it was not ethical to include Peter's responses in the actual study as the detail of the conversation cannot be compared with the remaining three interview candidates. (The reader will note that results from this interview are accounted for in Chapter 2.5.)

3.3 Result

Finally, we've arrived at the teacher's staffrooms and get to peek behind the doors to find out what music teachers actually think about interdisciplinary teaching. The following is a summary of the interviews I have conducted with three music teachers in order to glean information about how they experience lesson planning and integration.

As the questions were posed informally and in different ways, I have chosen to present the most important question areas as topics and then provide a summary of the discussion which followed.

Topic 1: Do you plan lessons together with teachers from other subjects?

Out of the three teachers interviewed, integrating music with other subjects was an obvious part of teaching only for 70Mont1-4. She says that it is a principle of the Montessori technique to integrate all subjects into her lessons all the time. Convinced that this is the best pedagogic approach, 70Mont1-4 could not imagine teaching any other way. Lessons constantly revolve around what the individual student is interested in.

79Pub10-12 has not had so much experience in integration but has worked recently with the art teacher in a project where the students have recorded music in their music lessons and designed a cd cover in art. Current affairs covered in social studies have been integrated into music lessons with students from the vehicle program. 79Pub10-12's music class wrote text to songs about current issues, for example the war in Iraq. He has also spontaneously integrated his English lessons with music, in which case he integrates "with himself". In summary, 79Pub10-12 only integrates music with other subjects when the theme is suitable for music.

55Pub7-9's school has a 'theme-day' every term, but otherwise integration seems random and does not necessarily involve all teachers. 55Pub7-9 does not participate in very much integrated activity at this school, but often tries to plan her schedule so that relevant topics coincide with other subjects. She has had interdisciplinary experience at the lower primary school level where she worked some years ago. 55Pub7-9 found then that lessons covering multiple subjects is much easier and more obvious in the lower grades, where teachers and students are not as preoccupied with setting grades.

- It works much better there but then you don't have that pressure to set grades and those demands for how we... 'This is what we have to teach them during the lessons'

55Pub7-9 avoids integration unless it does not affect her schedule for achieving everything in the curriculum and does not require much time and planning.

Topic 2: How does integration work in practice?

The Montessori school where 70Mont1-4 works is very small; there are only seventeen teachers on staff. Therefore planning is discussed very casually in the school corridors. Planning happens much the same way in 79Pub10-12' upper secondary school, although sometimes they can also have meetings where they take the time to plan themes quite thoroughly. There doesn't seem to be any set structure for when this happens. It usually happens that 79Pub10-12 is invited into the theme activity by teachers from other subjects, for example social studies.

At 55Pub7-9's school, colleagues sit every Thursday and discuss lesson planning. According to 55Pub7-9, it is usually the social studies teachers who come to the meeting with ideas for themes, a situation which 55Pub7-9 admits will have to improve.

Topic 3: Are there subjects which are easy to integrate with music? Any that are difficult?

Geography is a subject which 70Mont1-4 explains enthusiastically combines well with music:

- I really like world music, when you put it in with geography... The children are becoming to be more accustomed to listening to more types of music than just from the west.

70Mont1-4 is also quick to name maths as a subject that is easy to integrate. She found biology possible to integrate as well. The process of this integration usually involved singing songs:

- There we have lots of 'rhyming and counting' and such. And arithmetic; there we have multiplication rhymes. And then we work quite a lot with note values and such when of course all of the fractions come in.

55Pub7-9 did not have the same response to mathematics as a subject which could be integrated with music and emphasised here again the difference between what is possible to do in lower compulsory and what is appropriate in upper compulsory or upper secondary school. According to 55Pub7-9, in the lower grades the class can sing songs about almost anything and there one can combine two unrelated subjects, whereas this wouldn't work with older students:

- Everything is possible to combine, really... it depends on what grade... I mean if you're working with small children, then there are songs you can sing about numbers... But when they are big, I don't know. In a way, when you link with science, there are connections sometimes when you talk about tinnitus and such things. And with maths when you talk about music theory and notes and note lengths and such... You can make some associations but it's not like you're working together.

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¹⁰ A type of Swedish elementary school jingle combining music with maths. In Swedish: räkna och ramsa

Natural sciences and social studies topics such as the recent French election are also themes that 55Pub7-9 mentioned as difficult to handle in music. 79Pub10-12 found it difficult to find a logical relation to music and social studies topics like welfare.

Topic 4: Have you faced any problems? Had to make compromises?

70Mont1-4 seems to not experience any large problems when integrating subjects. Although it requires time and planning, she sees it as an obvious part of teaching. 79Pub10-12 doesn't seem to experience practical problems when planning lessons together with other teachers. He emphasizes the importance of identifying when a theme will not integrate well with music, thus avoiding future problems. 79Pub10-12 insists that the theme must have relevance to his own subject.

- I think that the most important thing is that you have to feel that it's relevant, but then it's about give and take. You can't just give time towards something else without gaining something out of it for my lessons and the students. It has to work both ways.

55Pub7-9 feels that you don't gain time through integration of subjects, but rather you lose time.

- At least here it feels like that. There's more to do then.

She has seen how much time others put into planning themes and cannot consider doing the same. She suggests that the staff's possible undeveloped ability of working in groups as a reason for difficulties. The limited time schools allocate to music per week makes 55Pub7-9 very protective of the subject and any co-operative lesson planning must be extremely structured and sensitive to the music curriculum.

55Pub7-9 has also had to relocate the music room into a temporary building to allow for renovating and this has disturbed plans for running music history and art history in the same time frame.

- Because they were going to renovate the music room I had no instruments to play on. So then I said that it would be better that I put music history in those weeks, because then there isn't so much playing, but mostly just listening.

It is the everyday practical problems which make 55Pub7-9 skeptical to the success of interdisciplinary teaching.

- No-one can be sick or have a substitute teacher, so that no-one misses a certain element, or otherwise we have to begin again or... You know, such things happen all the time. It's not like teachers can follow the plan completely. It's different for everybody.

Topic 5: Do you feel that you have time to teach everything in the curriculum?

79Pub10-12 and 70Mont1-4 both feel that they have time to achieve everything in the curriculum. 70Mont1-4 says that she has the integrated curriculum to thank for that.

55Pub7-9, on the other hand, feels that she definitely does not have time to fulfil all the requirements of the music curriculum, and often has to sacrifice certain elements.

Instead of trying to achieve each requirement of the curriculum individually, 55Pub7-9 chooses to use the grading system as a guide for dividing the music curriculum into a practical vs. theoretical perspective. The result, according to 55Pub7-9, is that 8 out of 24 music lessons in grade 9 can be devoted to theoretical teaching, for example, music theory and history. Therefore, those 8 remaining weeks must be precision planned in order to use the time most effectively.

Topic 6: Is it the teacher's responsibility to show connections between topics?

All teachers agreed that it is part of a teacher's task to show the students how music and other subjects are connected in the world around them. All of the interviewees were unanimous that they strive to show the relevance of music in everyday life.

70Mont1-4 says that some students require no explanation, they understand the relevance themselves. She checks what prior knowledge the students have with other teachers before lessons so as to not assume they will understand the concept's background.

79Pub10-12 is unsure if he is managing the time to make the connections between the students' programs¹¹ and music. According to 79Pub10-12, some students require no explanation, they understand the relevance themselves. 79Pub10-12 says that sometimes he is unsure how much he should explain the connections and feels that perhaps it would be better to let loose the reigns and see how the students manage without that guidance.

- It can be wrong of me but I remember myself sometimes explaining yet again, for example they had a song about the Iraq war in order to create the music, and I just wanted to try to give a further explanation and perhaps it was unnecessary.

55Pub7-9 feels that it is part of a teacher's job to help students comprehend reality. While she is confident that some students have no problem grasping the concept of continuity between music and other subjects, there are students who experience problems even after explanations. She has seen from test results from music history exams, for example, that students can have totally incorrect perceptions of time and events.

- Often it's just when you have talked about and discussed music that you make connections to literature, history and science so that they see that music isn't just a thing isolated, but that it all hangs together. But then I don't think that they really understand that... The 14th century was a long time ago. It is a little too abstract for them. They can easily blurt out centuries that are 500 years wrong and phenomena which you would think they should have grasped couldn't have existed in medieval times.

"More than you would believe" is how much 55Pub7-9 feels she must explain these connections to the students in order that she not take previous knowledge for granted.

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¹¹ In the Swedish upper secondary school system, students choose different specialised "programs" to follow (for example, vehicle program, aesthetics program, and social studies program).

Topic 7: Should teachers always integrate?

I wanted to pose this question in relation to Peter's school's "all or nothing" approach. Should teachers be forced to integrate, even if they feel it does not make them more time-efficient? Again, as 70Mont1-4 works at a Montessori school, it is expected that she would integrate subjects while teaching all the time. She says that it is her task to show how everything "hangs together".

79Pub10-12 is undecided about whether it is a good thing to force teachers into a strategy which they might not wholly believe in. As stated before, he is against planning themes together with other teachers if it means only a strained relationship between the theme and music. At the same time he understands that sometimes you need to put pressure on others to conform in order to see if the strategy will work as a whole. In 55Pub7-9's opinion, due to the amount of time and planning required and the practical problems that can be encountered, she is skeptical that integration is the solution to achieving everything in the curriculum.

Topic 8: Interpreting curriculum

I presented a couple of excerpts out of the music curriculum for the interviewees to see how they interpret them. 70Mont1-4 interpreted "Music can serve as a concrete starting point and support for teachers in other subjects" thus:

- This is for example that you can use rhythm and tones as a help for them to learn. "Rhyme and count" or the alphabet or the planets position in the solar system.

55Pub7-9s interpretation of "The students should be familiar with music's point of contact with other areas of knowledge and develop the skill of combining music with other methods of expression, for example, art, literature, drama, dance and movement" was as follows:

- In a literal way, I don't really know how you are supposed to interpret that. It is about the activity of creating, that you can express yourself in different ways, with art and drama and such. I don't know... it is a part that you seldom have time for, you know? Very seldom. Because such things take time.

Topic 9: Are there different ways of learning according to different talents/intelligences?

By asking this question I wanted to ascertain if the teachers were aware of theories about different teaching techniques to suit different learning types. 70Mont1-4 believes that it is part of the process of teaching music to find the kind of musical expression which is right for each individual. Certain children are more musically talented than others; however she feels that it also has a lot to do with certain stages of the child's development.

79Pub10-12 has experienced that certain students feel much more comfortable if they are able to read the guitar tablature on a piece of paper in front of them, while others respond better to listening to the teacher and being shown where to put their fingers on the guitar.

55Pub7-9 believes that everyone is musical in some way and should be able to learn how to appreciate music at a basic level.

Topic 10: Have you noticed any change in student motivation during co-planned themes?

Despite studies which cite the improvement such a technique have on students' performance, 79Pub10-12 states that his students are often not conscious of the fact that they are being taught a topic covering more than one subject. Furthermore, the students can react negatively to theme-work because they become bored with studying the same topic. In this case, 79Pub10-12 feels it is sometimes wiser to follow the students' interest and change topic.

55Pub7-9 is convinced that you cannot teach something to someone who is not interested in learning. It is possible to memorise this information, but genuine learning comes from genuine interest. Even if someone has a certain talent in music, they still may be lacking the motivation to achieve, in which case their musical talent goes unnoticed and is wasted. It is up to each teacher to find the key to the student's will to learn – not just to achieve a certain grade, but because they want to learn.

3.4 Result analysis

A great deal of inside information has been disclosed about music teachers and integration. I shall now proceed to analyse this information in order to elucidate answers to questions posed in this study's objective in chapter 1.2.

Are there situations when integration between music and other subjects is suitable?

As we can see from the results of the interviews, there is a varying attitude towards integration. It was not only a positive concept to 70Mont1-4, but necessary. To 79Pub10-12, it can be helpful if used in the right way, whereas 55Pub7-9 considered planning lessons together with other teachers more of an obstacle in the path of time management. We shall now discuss possible causes for why their attitudes towards integration are so diverse. Despite the difference in the ages they teach, both 70Mont1-4 and 79Pub10-12 shared a positive stance towards interdisciplinary design. Both these teachers also spent the least time planning these integrated units.

55Pub7-9 does not participate in very much integrated activity at her current school, but often tries to plan her schedule so that relevant topics coincide with other subjects. The reader may recognise this situation by Heidi Hayes Jacobs's definition on page 6 as "parallel discipline design" (1989, p15). Jacobs explains that while this shows that the teacher is at least considering a connection between subjects, the concepts are still isolated and the connections must either be made by the students themselves or more time taken by the teacher to explain the connections.

One of 79Pub10-12's methods of integration was to combine art with music, in this case making a cd cover in art class for music created in his music class. This is an activity which not only successfully integrates two subjects but also follows the process that an everyday musician would experience. The students get to practise and

learn from an activity which is connected to something they are very familiar with in real life. As stated earlier, Dewey (1916: 163) insisted that school activity be practical and show the relevancy of the activity to productive life outside of school.

Again, readers may note that 79Pub10-12 uses a method described by Jacobs as "complementary discipline design" (1989: 16). Even though this integrates only two subjects, 79Pub10-12 and his artistic colleague have clearly put much thought and planning into this teaching unit. They have recognised that the close relationship between music and art can offer a creative and relevant learning resource.

Are there situations when might not be suitable?

When contemplating how compatible different subjects were when planned together with music opinions were divided. A traditionally "difficult to integrate with arts" subject, maths, was named by 79Pub10-12, 55Pub7-9 and Peter. As discussed earlier, the curriculum for music in compulsory school states clear relations between music and mathematics which can be illuminated to promote understanding:

- Music is also closely related to mathematics, since many of the subject's concepts, covering everything from timing to keys and chords, are mathematically defined.

Wollenberg (2003: 8-9) sees that, through history, western composers have employed mathematical techniques; from the rigorous counterpoint of J.S. Bach to Schoenberg's method of serialism. Pythagoras himself is claimed to have noted "the harmonious relationships of the sounds produced by the hammers in a blacksmith's forge, and further investigations revealed that the masses of these hammers were, extraordinarily, in simple whole-number ratios to each other!" (2003: 14).

Further, in terms of musical analysis, Smith accounts for how a number of composers from the late Romantic era, namely Bartok, Satie and Debussy, used the *Golden Mean*, a mathematical ratio, as compositional structure. The theory of this ratio is used to explain phenomena in nature, for example the structural formation of shells and flowers, and can also be found in art and architecture of the renaissance period and even in literature (2003: 83). This is just a small sample of parallels which can be found between music and mathematics.

Mathematics, was handled easily by 70Mont1-4, and yet this can probably be attributable to the fact that she integrates these subjects by singing songs about different topics, a technique which lends itself particularly well to preschool and lower primary level. On the other hand, 55Pub7-9 stated earlier:

- I mean if you're working with small children, then there are songs you can sing about numbers... But when they are big, I don't know.

Westlund supports this statement with the following:

- In the earlier grades of compulsory school, it is today not unusual for own work, theme studies and projects to all appear on schedules which come home to the parents. In grades 7-9 this is still quite unusual (1998: 137) 12

79Pub10-12 uses an advanced version of the "singing songs" technique when his students write their own songs about current affairs, for example protest songs about the war in Iraq.

79Pub10-12 has identified problems with themes and changed the course of action to best suit his students' interest and performance. I feel that this is a situation where the choice to not integrate is well-motivated. Franzén concedes also that integration is not always the solution, "but it should be an active, pedagogically motivated action and in full agreement with the teacher work group" (1996: 60)

D.N. Perkins, Co-director at Harvard University's Graduate School of Education, maintains that selecting a suitable theme to be integrated is crucial to the success of the learning and co-operative experience. He offers the metaphor of a magnifying lens in order to identify such a theme. A lens, as well as a good theme, can be applied broadly and pervasively, it can show us the fundamental structures and patterns as well as its similarities and contrasts. Most of all, it fascinates us (1989: 70-71).

Both Perkins and Jacobs warn about a pitfall many teacher work groups can stumble into when they, with the best intentions, plan lessons together. Jacobs calls this the "Potpourri problem" (1989: 2), when many different subjects are involved in a theme, but with no sequence or central focus. An enormous amount of effort can go into finding ways for all subjects to unite into the one theme, but the teacher work group must evaluate if the theme is actually important and rich enough to justify such an effort. As stated on page 6, the school curriculum cites the following important issues as topics which should be integrated into the school's program: environment, traffic, equality, consumer issues, sex and human relationships, risks posed by tobacco, alcohol, and other drugs — topics which might not necessarily lend themselves to integration by all subjects, but which writers of the curriculum consider to be important and relevant.

The teachers' varied response to the idea of planning lessons together gives a clear picture of the problems obviously encountered by schools such as Peter's school who have imposed the philosophy of integration. As 79Pub10-12 explains, it would be a difficult choice to force a method in order to accurately measure its worth unhindered. It is possible that radical schools such as Peter's may face what Jacobs claims is the other dangerous pitfall of integration, the Polarity Problem (1989: 2). According to Jacobs, the Polarity Problem occurs when schools only see a black and white distinction between the traditional, curriculum-based method and interdisciplinary design. Jacobs insists that for integration to assist, the benefits of both methods must be sourced.

¹³ Authors own translation. Swedish: men det ska vara en aktiv, pedagogiskt motiverad handling och i fullt samförstånd med arbetslaget

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¹² Authors own translation. Swedish: I de tidiga årskurserna i grundskolan är det idag vanligt att det står eget arbete, temastudier eller projektarbete på de scheman som föräldrar får hem. I årskurserna 7-9 är detta fortfarande ganska ovanligt.

To what extent should teachers make connections for students?

70Mont1-4, 79Pub10-12 and 55Pub7-9 all believe that the students are not always aware of the relationship between what they are studying in the music room with the outside world and prefer to "over-explain" rather than expect their students' to make the connections themselves. This is an interesting insight into 70Mont1-4's method as the Montessori pedagogy is supposed to encourage that the students take responsibility for their own learning.

55Pub7-9's mentioned the students' difficulty with understanding time lines:

- They can easily blurt out centuries that are 500 years wrong and phenomena which you would think they should have grasped couldn't have existed in medieval times.

Subscribers to Montessori's method would assert integration with social studies to be an obvious solution to this problem. As stated earlier, one of the founding principles of the Montessori method is to present concepts in their historical context (Lillard, 1996: 55). In such case, teachers may concentrate on their discipline while necessary connections (in this case, timelines) are made clear through integration.

70Mont1-4, 79Pub10-12 and 55Pub7-9 all agreed that people learn and react to music in different ways. By taking this point of view, all of the teachers would agree that a concept taken up in music class might for example be better understood if also taken up in art, if the student was not musically talented but instead gifted in expression through visual arts. This could be seen as a 'safety net' of learning by teaching the concept in more than one subject at a time, thereby allowing more chance for the student to understand and reflect.

As discussed earlier, this is a founding basis for Howard Gardner's theory. 79Pub10-12 justifies three different "intelligences" as methods for teaching guitar: guitar tablature on a piece of paper (visual), listening to the teacher (musical) and being shown where to put their fingers on the guitar (cognitive).

Does integration help you to achieve everything in the music course plan?

55Pub7-9 was the only teacher during the research who felt that she could not achieve everything in the music curriculum. When one looks at the 55Pub7-9's time estimate (eight out of 24 weeks to devote to non-practical elements) compared to the amount of theoretical study required in the course plan, it is understandable that 55Pub7-9 finds time management to be a constant struggle. This coupled with the fact that when unexpected events must be strained into the school's schedule, music is one of the first subjects to be replaced, being as it is a non-core subject.

Franzén, a veteran of upper primary music teaching, is aware of how small music is as a school subject and he sympathizes with the anxiety compulsory school music teachers feel with respect to integration. "And it is just because of this fact that integration with other subjects is so well-motivated" (1996: 60). With these comments, Franzén asks if there is better way to state a case for music's role in school than to show its connections and importance to all other school subjects.

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¹⁴ Authors own translation. In Swedish: Och det är just detta sammantaget som gör integrering med andra ämnen så välmotiverad

55Pub7-9 was sceptical even to specific suggestions in the music curriculum to integrate music with subject's like art and drama:

- In a literal way, I don't really know how you are supposed to interpret that. It is about the activity of creating, that you can express yourself in different ways, with art and drama and such. I don't know... it is a part that you seldom have time for, you know? Very seldom. Because such things take time.

Franzén (p60) sees this attitude of music teachers to avoid integration as a prioritising of course material over a broader perspective and student perspective. Franzén explains further that without suggesting a break from traditional, curriculum-based teaching, "we should, with implementation of Lpo 94, let the vision of knowledge and content in the program decide organisation and method" (1996: 63).

Westlund (1998, p132) is of the opinion that school schedules, and the amount of hours allocated each subject, serve the economic and administrative purposes rather than the best interests of the student. The leaders of the school look after the school in general and the teacher work groups take care of teaching – this is how Jörbeck och Levén (2003, p41) see the function of most schools today. They believe that such a rigid foundation leaves no energy or time for development of ideas. Säljö (2000: 137) also considered school to be a place where patterns of communication have become so entrenched that the "traditional way" can seem like the only possible option. Sandström claims (2005: 13) that, according to the school curriculum, Lpo 94, the school's principal has the particular responsibility to see that certain issues are integrated into all school subjects. She notes (2005: 72) that there are those who see subject integration as a threat against the school's mentality. In her study, which deeply investigated the attitude towards interdisciplinary studies amongst school personnel and students, Sandström found that opposition towards integration was found most often amongst teachers with core-subjects, for example mathematics, Swedish and IT (2005: 52).

4 Conclusions

During this study we have received insight into how music teachers plan their lessons and their attitude towards integration. Research and empirical study has shown that teachers are able to make connections between music and other subjects. We have also discussed how beneficial integration is to both learning and the credibility of music as a discipline.

So, why didn't everybody do it?

I believe that one of the most significant problems that the informants experienced was making practical and useful connections between music and other subjects. 70Mont1-4 teaches young children and can therefore sing songs about almost anything in order to integrate music with the other subject. 55Pub7-9 was sceptical that this technique would work because of the age group she teaches, young teenagers. My opinion is that in lower grades both teachers and students are more open to

¹⁵ Authors own translation. In Swedish: vi ska vid genomförandet av Lpo 94 låta kunskapssyn och innehåll i verskamheten bestämma organisation och metod

creativity and spontaneity, whereas upper compulsory and upper secondary school is generally considered a place for traditional subject separation and more "mature" techniques of study.

Yet, how was this technique employed successfully by 79Pub10-12 with older teenagers? I speculate that older students become interested again in singing songs, with the purpose of connecting two subjects, because at this point they have become more musically talented and independent, enough to be able to write music and play it back. It is fun to write your own songs and this is a strong incentive to bring in current affairs and issues which the curriculum states should be integrated into all subjects. I feel however that, regardless of age of musical talent, topics in social studies such as 79Pub10-12 and 55Pub7-9's examples, welfare or elections, would be difficult to integrate as they do not lend themselves easily to interesting song lyrics and are usually not relevant to music history or theory.

Time management is handled differently by everybody. Some people thrive on constant activity and stress, while others work better with precise routines. This coupled with the fact that requirements and conditions vary from teacher to teacher make it difficult to suggest that everybody should be using the same method. As we saw in the study, 70Mont1-4 felt she achieved everything in the curriculum due in part to the fact that she integrates music with subjects all the time. 55Pub7-9 struggles with fulfilling the course requirements and feels that planning lessons together with other teachers would reduce her available time even more.

As Franzén expressed, teachers should rely not only on a curriculum-based perspective, but also take into account a broader view of the concept of knowledge. I support this view as I personally see less worth in crossing items off a list (the music curriculum) and more worth in ensuring that what is being taught is actually being learnt.

55Pub7-9 has however, as stated, attempted some interdisciplinary teaching. I feel that parallel discipline design is certainly a step forward from the traditional method of lesson planning which happens with no communication between teachers, and can be a reasonable option for teachers who feel they have no time to overhaul their lesson plans into interdisciplinary units. Parallel discipline design would have sufficed during my four weeks of western classical music history lessons back in my practice placement to ensure a better chance that students were grasping such an immense scope of knowledge.

Perhaps an integrated curriculum is not the only answer to the music teachers' time management, but is it not worth trying if the result may mean better long term learning for their students?

4.1 Relevance for the teaching profession

When one considers the relevancy this study has for the teaching profession, one gradually realizes that the scope is enormous. The topic focuses on a method of teaching which can have significant consequences for the learning process, as well as for the subject music.

As stated previously, there is a distinct lack of research and literature relating to integrated curriculum in Swedish upper compulsory school from a music perspective. I believe that music teachers, in Scandinavia as well as internationally, have much to gain from exploring this method and developing an awareness of the possible problems which can arise when employing interdisciplinary design.

This paper has discussed extensively cases supporting interdisciplinary teaching; firstly, how the human brain best absorbs concepts when it is able to see the connection between them and relate to previous knowledge. Further, a successful integration of music with other subjects shows students the relevance of music in the broader world perspective. This would gain the subject increased relevance and status in the eyes of not only the student but other teachers and even parents and possibly the wider community. A stronger status for music as a subject could, in the future, mean a more generous time allocation, an increase in economic funding for excursions, concerts and material resources, and a possible decrease in the de-scheduling of music to make way for school events.

The reader may also note that certain problems have been illuminated in this study which are burning issues for teachers in upper compulsory – for example the organisation and process of teacher work groups, the responsibility of the leaders of the school towards these groups, as well as their responsibility to ensure the best possible learning for their students. Other similarly smouldering problems which this study touched upon were how teachers experience time constraints when planning lessons and how different teachers react to change, both in method as well as organisation changes in the school.

Yet perhaps the most significant issue which has come to light through this research is the act of interpreting both the school curriculum Lpo 94 and the music curriculum and their references to an integrated curriculum. I underestimated the impact this issue would have on my analysis and conclusions after the study. The following and final chapter will discuss how this and other matters could be handled in more detail in a future research project.

4.2 Future research possibilities

While writing my report I found that even though I had limited the subject matter to become very specific, the scope of the study broadened considerably when investigating the possible causes of the teachers' behaviour. There are many questions which could be inspired by this report.

A subject of particular interest to me is interpretation of the music course plan for upper compulsory school. I feel that all of the interview questions were relevant. In hindsight, however, questions regarding the music curriculum might have been better formulated and prepared. Insight into how different teachers interpret the course plan, I believe, justifies an entire empirical study. An interesting delimitation would be how music teachers interpret the inclination towards interdisciplinary teaching. In such a case, I would suggest that the informants to be interviewed were all teaching the same grade of music and thus using the same music curriculum in order that differences and similarities can be more accurately compared.

Other interesting matters inspired by this research might include:

- What depth of knowledge of music should we be trying to teach in upper compulsory school?
- Music's status in school?
- Rigidness to organisational and methodological change in schools depending on age
- How students experience learning from both traditional and integrated curriculum teaching

I regret not having probed further into interpersonal problems which teachers can face when working together in groups. This was a missed opportunity which could have greatly contributed the investigation of problems when integrating. Nevertheless, it was not something which felt natural to me at the time and is something I could improve upon during future research.

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Appendix

1. Interview question checklist

Får jag be om ditt fulla namn? Vilket år är du född? Vad har du för ämne? Hur länge har du jobbat som lärare? Hur länge har du jobbat på denna skola? Montesoriskola?

Planerar du lektioner ihop med lärare från andra ämne?

(Om nej) Tycker du att det är lättare att jobba ensam? Har integrerad ämnesplanering provats någon gång i denna skola? Har det funnits konflikt? Skulle du kunna se några fördelar med att planera tillsammans?

(Om ja) På vilka sätt kan musik integreras med andra ämne?

Finns det något tema som du tycker var särskilt framgångsrikt?

Finns det något ämne som du tycker att musik inte kan integreras med?

Skulle du kunna berätta för mig hur går det till när ni börjar ett samarbete?

Vad behövs?

Behöver man göra kompromiser när ni samarbetar?

Vad anser du som fördelar att samarbeta?

Finns det nackdelar?

Vad är det för stämning i personalrummet?

Tror du att den skulle påverkas om folk inte samarbetade?

Har du märkt att elevernas prestation eller motivation blir bättre när de får undervisning på detta sätt?

Hur funkar det med betyg? Får eleverna redovisa i varje ämne eller integreras detta också?

Är det lätt att följa kursplanen och integrera ämne?

Kursplanen:

Hur tolkar du i musik kursplanen:

"musik... underlättar integration och samverkan i skola och samhälle"?

Jag har läst ganska mycket litteratur där det står att man lär sig bäst när man får möjlighet att förknippa det nya med tidigare kunskap eller erfarenheter. Tror du att lärare **tar tidigare kunskap för givet**?

Tror du att elever lyckas göra de nödvändiga kopplingar för att djupt förstår eller måste vi klargöra kopplingarna åt dem?

[&]quot;Musikens beröringspunkter med andra kunskapsområden"?

[&]quot;konkret utgångspunkt och stöd för lärande i andra ämnen"?

De som befrämjar integrerad ämnesplanering anser att det hjälper eleverna att **koppla kunskapen till vardagligt liv**. Tror du att din undervisning kopplas till vardagligt liv? Hur?

Det finns några som påstår att på grund av att man har **olika begåvningar** kan man ha svårt för att förstå en sak när det presenteras på ett logiskt-matematiskt eller språkligt sätt och lättare när samma sak presenteras på ett musikalist eller visuellt sätt. Vad anser du om det?

Tror du att dina elever får möjlighet och tid till att sätta all information i sammanhang? Att **reflektera** över det de har lärt sig?