Cross-curricular teaching in Sweden and Flanders
A case study

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ABSTRACT
Cross-curricular teaching is a teaching method in which one or more subjects are used within another subject to make clear links to those subjects. This is to attract pupils that are otherwise maybe not interested in this subject. The aim of this work is to see how this teaching practice is organised these days by asking teachers about their work from a constructivist point of view. For this work written interviews with teachers from Flanders and Sweden have been conducted to see how teachers work in an international context. The results point out that although the teaching practice is different in both regions, the way the teachers think is very similar.

Interdisciplinary teaching – cross-curricular education – Flanders – Sweden – social constructivism.
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APPENDIX
1 INTRODUCTION

Educating pupils has for most of the time been about teaching one subject at a time to pupils in school. In earlier times this was understandable since you didn’t have that many different subjects. These days however we keep inventing or creating other subjects, like informatics or Livkunskap (life competence education), to keep up with the technological and social changes in society. However, these new implemented subjects can often be related to an already existing subject. Even subjects that are already part of the education are quite regularly connected to each other.

Looking back on my experiences with the Flemish education system as a pupil in the secondary school I noticed that the subjects that were taught to me were very much one-sided. With this I mean that when I had e.g. geography as a subject the teacher only taught geography and not about possible connections to other subjects to get the attention from pupils who aren’t interested in geography. If teachers tried to implement other subjects in their subject, it was rather artificial and you could not connect it to a chapter that we had been dealing with. So teachers sometimes try, but aren’t successful at doing so because they cannot connect this knowledge to previous chapters.

So I wondered if it is really possible to work across the borders of the subject curriculum in order to make classes more appealing for the pupils. That is why this paper is written, to bring up a case within the education system in Sweden and Flanders. The Swedish system already offers some sort of cross-curricular subject, called Society in English. But I noticed it was more of an umbrella term to group various subjects (history, geography, religion and citizenship) than using the subject to try and combine them at the same time. It’s a challenge for the teacher but it could be more attractive for the pupils. In this aspect Popper¹ says that education is more than just telling people what to think it is about. But this pushes teachers and education in general out of their comfort zone. This by thinking how they can innovate education themselves and concerning this aspect this can mean they need to use an interdisciplinary approach.

This paper tries to give an insight on how teachers look at cross-curricularity within their subject and within the school environment. Hereby we try to focus on the whole process, from the planning to the evaluation and reflection of the teacher’s work. Why do, or don’t they use interdisciplinarity and which reasons do they give for teaching it in that certain way. Are they thinking it has an added value or is it more to make what they need to teach fancier for the pupil?

2 BACKGROUND

Education is not something that is organized in the same way around the globe, every country or even region has its educational system and even those systems have changed over time. This chapter is about changes that some places in Europe went through, and to show that all changes are not made in one way, but that a policy can be changed in different directions. This changes of course the way in which you teach (a) subject(s).²

Further on you will read about how teachers are thinking about other subjects and how their minds can be changed by putting these separate subject teachers in a group with one another.

2.1 Cross-curricular teaching across the European continent

To fully understand the thought about cross-curricularity it is important to know how and why all these changes towards a wider or a tighter point of view are made within different European countries. The United Kingdom tried to move towards a more varied implementation of subjects to connect them to others, while Norway went through changes that implicated a less cross-curricular work.³

United Kingdom

In the UK they have several programmes with the aim to increase cross-curricular implementation like 'opening minds', 'Learning to learn’, 'fusion curriculum’ and many others.⁴ All these programmes were designed to increase and facilitate interdisciplinarity within subjects. This was only possible because the National Curriculum changes in 2008⁵. Those gave schools "the opportunity to adopt different approaches in the curriculum."⁶ Due to this curriculum not everything is outlined in subject-specific curricula but in an interdisciplinary part of the curriculum. So it is possible to link a lot of those things into a perspective from the humanities rather than a pure geographical or religious point of view. The authors also kept in mind that increased interdisciplinarity had some 'boobytraps’ to the further implementation of subject specific knowledge. There are many benefits to this 'teaching across borders’, but it is hard to keep a balance because the competences pupils acknowledge by specific teaching are as important as the evolution in the subject. You need to find this thin line between cross-curricular implementation and subject-specific knowledge in order to maintain the focus on the proper subject.⁷

Norway

In Norway there is an opposite movement if it is compared to the previous case. There is a so called 'enhetsskole’,'unity-school’in English. This lasted from the

⁶ Ibid.
⁷ Idem. , p.5 .
1930’s until the 1990’s due to the political views of the Norwegian Labour Party. All curricula were accentuated with ideological influences. An objects clause in 1959 reflects the political vision of the time to make the ‘unity-school’ understood.

"The school’s mandate, along with that of the home, is to encourage their students to be good citizens in society. The school will help give pupils a Christian and moral upbringing, develop their abilities and talents and give them a broad general knowledge so that they will be socially able individuals both physically and spiritually."  

This organization of school was build up out of 10 or 11 years of general teaching and a specialization until you finish school. Norwegian education consists of 13 years of compulsory school. In this way everybody had the same general knowledge and a late specialization. In this system you acquire a broad knowledge which keeps many ways open to continue the studies in diverse fields. So he or she will not be restricted to continue in certain directions. This late choice of future studies is a regular pattern from the beginning of mass education. During the 1970’s and 1980’s cross curricular teaching and project works had major influence on the ‘unity-school’. But these guidelines were to open and unspecific and in 1997 they were even quantified. Compared to the most other countries Norway also had a broad spectrum of subjects but little in-depth, and no space for specializing. These all had a strong ideological background.

From the 1980’s on this system was criticized. The reform pedagogy blamed bad learning outcomes and due to increased popularity of other political parties the educational views were adjusted to a more specific teaching during the 1990’s. During this period the Labour Party tried to streamline the educational system. In 2001 a new political stream was elected, a conservative right-wing government, who took education as one of their responsibilities. They set national competences and provided local freedom to organize schooling but with national control. This control is conducted by national tests. These tests are looked at in two ways on the national level the compare with international studies and at local level they compare to the national average. The interdisciplinary work is mainly focused on reading and writing skills in both Norwegian and English and on science, design and technology since the 2001 curriculum reform.

2.2 Cross-curricular teaching in Sweden

Just as in the European cases above, education in Sweden has been changing quite a lot since the 1990’s. Although the focus was on decentralization, they aimed to adapt
schools to the specific needs and circumstances for that place.\textsuperscript{15} Due to this decentralization process which resulted in schools run by the municipalities and independent companies or organizations, the Swedish educational system has been described as one of the most decentralized and deregulated systems of the world.\textsuperscript{16} After this evolution the curricula and syllabi changed in 1994. This evolution went from curricula with detailed specifications to curricula in which goals need to be achieved but stay vague on the contents and method of the goals.\textsuperscript{17}

The last decade several schools even implemented a subject which is not compulsory by the government, \textit{Livkunskap}, Life Competence Education (LCE). For this subject, although implemented in the school’s curriculum is not a part of any governmental curriculum.\textsuperscript{18} This subject is free to fill in, so schools use different approaches. It is most about norms and values, how the pupils should act and feel. In this way can it be implemented as a cross-curricular aspect in the teaching practice since teachers were obligated to use this subject by their head of school or by the local authority.\textsuperscript{19} Due to the implementation of this subject, the government had debates on whether to integrate it in the curriculum or not.\textsuperscript{20} A part of this LCE can be social-emotional training in which the teacher can talk about his experiences and how he reacted on it. Afterwards the teacher is letting pupils talk about their lives and experience and tries to give it a meaning and a place in the pupil’s life.\textsuperscript{21}

The evaluation changed as well and is focused on criteria which require implementation and interpretation on a local level. However it did not undergo major changes. The teachers who are teaching the classes are most of the time the same persons who evaluate the pupils. This from time to time leads to a more subjective way of grading. Teachers are evaluating the pupils in two ways. Firstly by grading them on what they do in the classroom and the smaller tests and assessments and secondly by correcting the national tests of their pupils provided by the national government.\textsuperscript{22} Since cross-curricularity is not a part in the curriculum, teachers do not need to evaluate pupils on this by national tests and develop their own ways of evaluation.

Another thing to add about Swedish education is that they work in so called \textit{arbetslag} (teacher teams). These are groups of teachers who are all teaching the same class groups but each one of them is teaching another subject.

\textsuperscript{16} Eric-Jan Gustafsson and Gudrun Erickson, p.70.
\textsuperscript{17} Ibid.
\textsuperscript{18} Camilla Löf (2009), p. 101.
\textsuperscript{19} Sara Irisdotter Aldemyr (2012), p. 27.
\textsuperscript{22} Eric-Jan Gustafsson and Gudrun Erickson, p. 71-72.
2.3 Cross-curricular teaching in Flanders\textsuperscript{23}

In Flanders a lot of reforms took place since the 1990’s as well. Although here we are not giving a focus on the carrying out interdisciplinarity in the classrooms but in the ”breeding room” for teachers, the teacher training programme. In a Flemish research considering environmental education\textsuperscript{24} in teacher training, the researchers tried to figure out if there are advantages to implementing a cross-curricular course into the students curriculum. Therefore they did a research at two university colleges, one that already had a subject given by a separate teacher and another that never worked with cross-curricularly. The researchers looked after a procedure that both institutions could work with at the same basis. Doing this research they noticed that the implementation didn’t completely go as the researchers thought it would be. More strongly, both colleges had to deal with the same problems though one of the two already had experience in cross-curricular teaching. As an addition to all this the authors wrote a note that Flemish curricula have seven cross-curricular attainments targets at secondary level, only for general education.\textsuperscript{25}

2.3 How teachers think of the subjects they do not teach

This part is basically about subjects in the humanities, but this can be used outside these studies as well. Most teachers are enthusiastic about their subject and they can light a fire in the pupil to gain interest in the subject that he or she teaches.\textsuperscript{26}

But when it comes to the point to let the teachers tell about what other subjects are about you most of the time end up in stereotypes of ‘the other’. History teachers are seen as essay writing person who spend their time reading dusty old books, while the geographer will hear that they only learn about countries and capital cities. This of course is not true within the teaching practice, but it is possible to associate with.\textsuperscript{27}

When however teachers who teach different subjects are put together and you let them explain what they teach. They will most likely find common grounds in their curricula and this is what humanities teachers need. A wider knowledge of other subjects in humanities to fully understand the part they teach about.\textsuperscript{28}

\textsuperscript{23} This is a Flemish and not a Belgian point of view since education is a concern for the parliament of the language communities in Belgium. This means it is a concern for either the Dutch, French or German speaking community.
\textsuperscript{24} Peter Van Petegem, An Blieck, Ingrid Imbrecht and Tom Van Hout (2005).
\textsuperscript{25} Idem., p.169.
\textsuperscript{26} Richard Harris, Simon Harrison and Richard McFahn (2011), p.1
\textsuperscript{27} Ibid.
\textsuperscript{28} Idem., p.1-2.
3 AIM

The aim of this research is to try and find out how teachers in the Swedish and Belgian teaching practice at högstadiet-level (lower secondary school) for Sweden and secondary school in Flanders are dealing with the topic of cross-curricularity. Built up in three major elements of focus: planning, carry-out and evaluation. Further questions are based upon these foci. Of major importance is the teaching practice and not the teachers themselves. This by conducting written interviews within an international, Swedish–Flemish, perspective.
4 THEORETICAL FRAMEWORK

Today’s education is not like it used to be in earlier times. The actual teaching practice is more about letting the pupils discover everything by ‘helping a hand’. Where it used to be more of an instruction from teacher to pupil with less interaction. These days a more constructivist way of teaching is used. The teacher gives information to the pupils and they build on what they already need to get a higher level of understanding. “The constructivists theory regards learning as an active process in which learners construct and internalize new concepts, ideas and knowledge based on their own present and past knowledge and experiences. Knowledge is constructed than received,” to say it in Crowthers point of view.  

This constructivist approach can be seen from two different angles of which the last one is the one being. The first approach is the one of a cognitive constructivism as developed by Piaget which more is a way in which you change the idea of what you know by experiencing something that’s contrary to it. This is more of a nature based approach. The second way in which you can see a constructivist theory is by following the path of social constructivism. In this stream of thoughts Vygotsky is the principal thinker. The theory of Vygotsky is similar to Piaget’s but Vygotsky implements a social dimension of learning into the research. Mainly about ‘high-order cognition’. This means that you can learn on different levels. You can learn your own experiences or you can learn with the help of someone who has more knowledge than you do. In this second case we speak of ‘high-order learning’.

This goes together with what Vygotsky called the ‘zone of proximal development’ (ZPD). Because if you want to learn by ‘high-order learning’ you need to know what is close to the person who wants to learn. The ZPD is what a learner can do with guidance of someone. This is called ZPD since you are unable to acquire that knowledge at that time without your guide. So learning is taken to a higher level. Although this seems like an ideal way of learning pupils what they should, teachers should be aware of some consequences. Teachers can not teach everything in this way. If they do, the pupils could get bored since you keep stuck to it. Another point worth mentioning is that the teacher needs to be aware of what he or she does at every moment because there are already lots of things a learner can perform without instruction, and collaboration with other pupils, peer-teaching, is important as well.

Within this social constructivism Bruner has a theory called “scaffolding” You can relate it to the ZPD since it is a guide that helps a learner out in one step of the process in order to be able to reach a higher level. This theory can not be used on a group demonstration since this is a personal help, one-on-one.

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31 Ibid.
32 Idem., p. 184.
5 \hspace{1em} \textbf{METHOD}

Under this heading an explanation will be given on how the research is built up and why these methods are chosen. First there is a description of what a case study is, and why this is a good way to conduct one. Secondly, the way in which the case study has taken place. At last there is the way in which the interviews have taken place.

5.1 Case-study

This study has become a case study since to me as a researching student this subject was not completely clear and I wanted to get some insights on this specific topic.

According to Yin a case study is “an empirical enquiry that investigates a contemporary phenomenon within its real life context, especially when the boundaries between phenomenon and context are not clearly evident.”\textsuperscript{33} This may not completely be correct for this research but there still are some aspects within this study that are not clear to me. Therefore this case study will try and get a better understanding of cross-curricular teaching in Sweden.

Why a case study instead of literature study or gathering a lot of data through questionnaires? Because you not only need to understand the things you have read but you need to be able to see if what is written down is still what’s happening in the field. So literature gives you a start in this topic to see which elements are worth investigating. This leads to maybe none discovered facets which need to be researched. By gathering lots of data you have lots of information, but you will miss specific things that can come up in interviews. This study tries to use both literature and information out of interviews to make statements.

A case study is more than just a ‘thick description’ of what’s happening, by doing a case study you can get a deeper understanding.\textsuperscript{34} These studies can have different objectives, but the objective of this study is to understand and explain the cross-curricular teaching practice. In case studies the descriptive part is an attempt to who, what, where, when and how everything is taking place Woodside says. While the explaining part of the case study research is more about why. This ‘why’ can be provided both by the persons you involve in the research as the researcher him- or herself.\textsuperscript{35}

5.2. Qualitative interview

The method book used has a more economic and marketing based approach but the way in which they use the interview is more or less how interview in general are conducted. Although the research book speaks of a long interview, two to six hours,

\textsuperscript{33} Woodside (2010), p. 1.
\textsuperscript{34} Ibid.
\textsuperscript{35} Idem., p. 11.
the interviews I have done did not follow this structure. This study makes use of written interviews by which, the interviewer sends a list of semi-open questions to the interviewee. This because another point of view of this study compared to the ones in the book, the only goals here is to get to know the teacher’s teaching practice and evaluation. And as mentioned by Cox and McCracken “an interview is to mine the life of the respondents.”36 Performing questionnaires would have given me a lot more data but little in-depth information whereas questioning has lead me to more special knowledge and specific insights.

Although taking interview is much more time consuming and Wolf says that interviews do not always offer deep understanding of the matter.37 I optioned to go for interviewing teachers. An advantage to questionnaires is that you can ask the questions to the interviewed and pick-up what they say to learn more about that aspect. Some pitfalls in this case are going off-topic with trying to get in-depth information or asking closed questions (yes or no) after you proceed with asking the why and how.

To give the interviewee a feeling of safety, where they have little or no distractions anymore, the interviews should take place in a known environment.

5.3 Course of action

The first idea was to make a comparative study by interviewing teachers at one school in both Flanders and Sweden. Since there was only a short period of stay in Belgium this would be quite hard to achieve. After some time these plans were cancelled since the school I contacted had lots of projects going, both at the school and outside the country. The head of the school also told me that it would be hard to get participation of teachers since they already took part in five student researches. Also she could not guarantee the participation of the teachers. She offered to send a questionnaire by e-mail which I didn’t do. The reason for this is that at that time I thought it was hard to get all information needed without being able to ask more in-depth questions if they hit an interesting topic.

So this research became a case study within Sweden at one school in the community of Kalmar. The first contacted teacher didn’t reply on my question if it is possible to conduct interviews with teachers at the school which delayed my work yet again. Due to national tests the end of the year in Sweden there was yet another delay on getting my results. By this time the path of the face-to-face interview was very hard. The only option left over was the written interview by e-mail with the face-to-face questions as the tool to help the teachers out. Anticipating on a rather low outcome plans changed once again.

The aim became to take a look at Flemish and Swedish education and how teachers both work with cross-curricularity. Trying to look after common grounds since

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similarities and differences are hard to find when each teacher has different subjects or subject combinations to teach.

To keep the interviews as structured and uniform as possible there is a list of questions which can be found in the appendix. The questions themselves are made up in chronological order to get a clear view on the process from the planning until the evaluation. Sticking to this track offers a structure to both the researcher and the teacher since there is little need for hopping from one part to the other. The interview also includes several semi-open questions on which the interview can get stuck with e.g. a simple yes or no. Therefore the researcher needs to ask why the teacher answers that way. However this interview is in a structured form, it is possible to ask questions not on the list if something needs to be clarified or something interesting for this research is said. A question added to the questionnaire is “What subject do you teach?”, since this can be important. It can provide the researcher a valuable source of seeing links between subjects that are not obvious or even surprising.

The interviews are carried out in English with the Swedish teacher to simplify the conversation, because the researcher does not speak the native tongue. Interviews with Flemish teachers are conducted in Dutch, the language spoken by them. All of the interviews are conducted with consent of the teachers who will remain anonymous in this research. The interviews are kept as Word-files on different devices to make sure they don’t get lost when there are mechanical problems with a hard drive.

To convert interviews into results it was needed to fully understand the interviews, so it was necessary to reread a few times. Since every individual answer tells about what he or she thinks it is not always clear what the teachers mean. Due to the semi-open questions you guide the teacher to talk about that topic, so in this way the researcher knows what to look for. Using this approach often brings up similar things but written differently, and otherwise. They can do the same thing but approached from another perspective. It is searching for differences and similarities which than get converted into clear results.

5.4 Participants

Five teachers have decided to help me in this research. Two of them are language teachers, and one of them also gives classes in mathetmatics. Two others are teaching in Humanities, one of them specifically geography and the last one teaches history, esthetics and ICT. We also need to keep in mind that one of the language teachers works with pupils from foreign countries who don’t speak the language, so slightly having another approach to things. This small group consists of teachers out of both Sweden and Flanders. None of the participants wrote to work within only their field. The teachers are chosen in different ways but not in this way that the outcome of the results is influenced by this. The Flemish teachers who helped out are known to the researcher and has the contact information. The Swedish teachers were chosen by another teacher as part of teachers within the different arbetslag at his school and were willing to help out.
6 RESULTS
Underneath you find the results of the research divided in several sections. The results are written in a way to get a chronical overview of how the lessons are planned and according to how the interview questions were made.

6.1 Planning
When the teachers start planning these interdisciplinary lessons they all go looking within the social sciences/humanities to find connection to the subject of study. Two of them also say that they try to involve natural sciences as well. Only one of the interviewed teachers says to work only with one other subject a time, to not confuse the pupils too much. Two other teachers implement multiple fields of study in it, but from another perspective. Because with one teacher pupils come from around the globe, "it is important that I give students as much of everything in a very short time”. While the other one uses a more specific way of work, to relate to a certain approach or technique. The last teacher however says she wants to teach in this way, but she doesn’t have sufficient time to carry it out. But when she is able to she keeps it to just one subject at a time.

When asked how they plan it the answers are getting more diverse, one tries to unify as much as possible out of the curriculum to have as much as possible in a little time as possible. Another says that “the links are being placed during the preparation. If it has an added value to the content I implement it.” The last one says to work as much as possible with another subject, if possible. Also the way in which they do so differs. From just writing or working about another topic to really relate to certain techniques used in another subject as well.

Sometimes teachers have problems working with subjects in which they are no experts. The teacher for the foreigners gets faced by a lack of vocabulary to work with and extend the knowledge while the other language teacher says to have a “lack of time to plan it properly.” However the other one says to be having no difficulties at all.

When you ask them if they work together with colleagues they all say they do, though the approach differs. The one for foreigners says the team works great, but they lack time to even improve the work. Another one makes his preparation and checks with his language and science colleagues for any remarks or additions. Having a good working relation with the cooperating partner is mentioned as well.

6.2 The practice
When teachers are busy teaching their classes they all experience different things while they are busy with the pupils. When making the content clear to pupils you are busy in an interdisciplinary way in which they sometimes have difficulties because of the mix of subjects. The geography teacher says “that there is almost nothing outside of my field of studies. This because practically everything is related to geography depending on the way you look at it.” The case of the teacher teaching the foreigners is yet again different. “Unfortunately this does not work so well with our students.” Since the pupils all come from different countries, are used to other school cultures, there is a rush to finish everything in time, just to pick up everything they need to know. But since here is a try to implement as much subjects as possible, pupils barely feel that this is something different because the pupils are used to this
in Sweden. Another one at last talks about a difficulty for some pupils to see what’s happening, but after a while they see the benefits of it. Finally the last teacher understands all the benefits of the intercurricular teaching “but it is hard to implement it all”. She mentions problems in timing and too much administrative work to fulfill it.

6.3 Evaluation

Evaluating the teaching

When the teachers are asked to evaluate the outcome of their work they all refer to their pupils for it. This takes places in several different ways. The foreigners’ teacher takes a look at the process of the growth of knowledge, but there is a small test as well. However “It is the students' progression that is the most important.” The test is more to get a belief to know the contents of a chapter. Another one does evaluate through written tasks to be handed in and talking to the pupils. This teacher states that being a teacher is to ask for evaluations of yourself the whole time. The third one often goes by self-evaluations and says that “the best way to know if my self-evaluations work is by asking former pupils of me.” A fourth teacher says he evaluates himself by just checking the pupils reactions and asking if they understood it all by questions which make the matter understandable.

Pro’s and con’s on cross-curricular teaching

Positive aspects for pupils in this kind of educating are various. The teachers mention one aspect, getting a broader view on life and influences in different fields. It gives a better view on how the world works outside school. Teaching in this way also brings variation to the practice according to most of them. Variation is a necessary thing. “By literally telling them the added value of one item in this topic you help them create a better view on the world” said the humanities teacher. The language teachers say they see a huge benefit in this way of teaching, because you can implement other subjects to read about to improve that language as well. “It keeps you sharp”, did another teacher mention “and you can learn more out of it for yourself”. And in this way you can ask pupils after relations.

Very little bad effects can be mentioned in this light. Two of them came up with a slightly negative side, but had difficulties to mention it. A Flemish teacher mentioned the short time of the classes 38, 50 minutes. While another teacher brought up that it maybe is confusing to some pupils to mix subjects up. A teacher too mentioned that “it is important to distinguish the main purpose from any other purpose to keep everything as clear as possible.”

Teachers see more advantages than disadvantages for themselves. “Many times it requires a lot of planning. But when you see the benefits of it, it is worth the job”,

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38 In Flanders all subjects have a certain amount of blocks of 50 min. classes. The number of blocks you have depends on how important a subject is considered by the government or the organizing school.
says a teacher. And you gain some knowledge yourself looking for a connection between subjects, is brought up by another one.

**Is improvement of interdisciplinary work necessary?**

All teachers agreed that there is more need to improve working cross-curricular teaching. In Flanders however the teacher mentions that the government seems to work a curriculum more based on competences and less knowledge-based. The Swedes bring up there is a need for getting back to the origin of teaching. Prepare and stand before a class and reduce administrative tasks. They prefer working that time on preparations for upcoming lessons. Neither of them bring up the school or colleagues.
7 DISCUSSION

It is never easy to unite what everybody says in interviews. Strange enough all the answers received were in a similar line with slight nuances. Under this header there is a try to highlight those differences and bringing up some remarks about this research and suggestion to build up on this one.

7.1 Planning

One of the remarkable results of the planning phase is that everyone digs into the social sciences to find good backgrounds to implement in whatever story. This has much to do with the fact that everybody at least has some notion about something related to what the pupils already know. But that carrying out of those plans are made differently in the preparation. It’s nice to see they all try to put it in other subjects and they vary the ways to do so by themselves. Although it seems interesting that one teacher only works with one subject at a time to not confuse the pupils.

When you analyze the outcome of the cooperation with colleagues you at first think they do have other priorities, relationships needs to be good, plan together or check with colleagues. You can decide that every teacher who wants to work with colleagues need to really be a part of the team of teachers in order to get everything mentioned by the interviewed. Otherwise you won’t be able to do this just because you have no real basis to start from with colleagues. For Flanders this could be a nice working method that a Flemish teacher already brought up in the interviews, but it is mentioned nowhere in the literature. In Sweden you have the Livkunskap which works interdisciplinary and although it is not defined by the government how it should be taught.\(^{39}\) You see many teachers have the same approach for subjects other then the Society course.

When you plan your class in Norway this can differ from the above interdisciplinary examples since the focus on cross-curricularly is put on three specific fields: science, design and technology.\(^{40}\)

The UK however thinks more open and has some experience with cross-curricular topics and there it is mentioned that you need to find the right balance between specific and general in order to maintain a good subject-specific education.\(^{41}\) So don’t ‘lose your subject’ by planning an overdose of cross-curricular knowledge. Something we can see in some way with Norway by the way they specify on what they need to focus on interdisciplinary.\(^{42}\)

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\(^{41}\) Richard Harris, Simon Harrison and Richard McFahn (2011) p.5 .
\(^{42}\) Hans Jøren Braathe (2012), p.29 .
7.2 Practice

Since there is so little time to see all that is needed to finish the curriculum there is a need to rush through sometimes. From time to time a lack of time strucks the teachers. But there is a need to relate things to each other, otherwise you lose the pupils interest after a while. Because it is getting too complicated to them. Although relating can not always be the biggest problem. I noticed that the way in which the questioned teachers work is related to the social constructivist theory and the ZPD. The teachers tries to make the questions on a level as high as possible for the pupils to reach optimal benefits in learning. This because the teachers start from what the pupils already know, and while building their lesson they implement things the pupils know out of other subjects as well to facilitate the understanding of the new knowledge. Without 'getting it’ a team of teachers already builds a web of knowledge for the pupils, and they continue expanding it. So teachers need to keep challenging their students in order to get the most out of them.

In the UK a part of the teaching practice for all teachers comes from an interdisciplinary curriculum\textsuperscript{43}, making cross-curricularity more common compared to Flanders and Sweden where we have seen that each teacher mention only their subjects curriculum. As mentioned above, Norway focuses on a few fields of study to work with in an interdisciplinary way. You cannot say that Norway acts the same as the UK but they are not working in a different direction. The Norwegian government seems to guide teachers into more uncommon fields\textsuperscript{44}, as we notice that most of the links teachers in Flanders and Sweden make are made within fields of the humanities.

7.3 Evaluation

Although the participating teachers say that they nearly always experience positive effects on the teaching part, both for themselves as for their pupils, they say there still is space for improvement. This throws up several questions. What can the government do to increase this? What can schools do? And what can a teacher do to get his colleagues more involved? Because of this space for improvements there is a need of more research in this area and a promotion campaign. A lack of time that all teachers mention somewhere in the interview can indicate that they have (a) to much prep work in which they are not able to teach, or (b) they have many administrative tasks which influence both the teaching and the preparing phases of the practice. The Flemish teacher mentioned the government putting more focus on competences then pure knowledge. This means they need to understand more about the situations that can be used in the interdisciplinary teaching on a higher level. But this also means less subjectspecific knowledge to connect to more non-specific content. Making all this a tough exercise to make a clear evolution in subjectspecific knowledge visible.


\textsuperscript{44} Hans Jøren Braathe (2012), p.29
7.5 General conclusion

Taking a look at the above results and combining them. It is surprising that both Sweden and Flanders share a very similar point of view in this matter. It was expected that there were more differences between both of them then it seems now. This due to a completely other educational scene. And that both the UK and Norway seem to have answers to the problems they face in some way. This should be a good reason to not only promote interdisciplinary teaching for pupils, but also giving teachers and student-teachers the opportunity to take a look over the hedge to find out how education works across the borders of your country or region. However, nowhere did a solution occur to the time problem teachers face while preparing for their next class.

7.6 Remarks and suggestions

This relatively small but geographically wide-spread research made this paper to a nice comparison on how education works in two countries. Although only two regions were implemented directly, we were able to get a bigger view through literature study. If this research could be made again but on a bigger scale we could learn more about the teaching practice. Implementing observations and more literature study it is made easier to verify or falsify the outcome of this whole research. But if there was more time, I would have carried out my research in the way that it was expected to be, just because it looks more thorough. And this only with teachers of the subject to get a more homogenous picture.

Making this research also produced more questions that can be investigated. Is there a difference between social sciences and natural sciences? Is there a gender difference? Is it more effective to guide teachers to implement more uncommon subjects compared to the common practice? All sorts of derived questions show that we still have to learn a lot about this subject.
8 REFERENCE LIST


Appendix

Interview questions:

1. Which subject do you teach?

2. When you teach, do you think of involving other subjects as well during your teaching?
   a. If yes, which subjects do you think of involving?
   b. If no, how come?

3. Do you stick to only one subject a time or do you try to put more in them?
   a. If you involve them, in which way do you relate them?
   b. In which way do you work with it?
   c. If no, why not?

4. How do you plan this teaching?
   a. Is this a common practice for you?
   b. What’s the difficulty?

5. Is there any cooperation with colleagues?
   a. How would you describe this cooperation if so?

6. Do you involve pupils in this way of thinking?
   a. If yes, in which way do you do it?
   b. If no, why don’t you?

7. How do the pupils react during cross-curricular themes?

8. When you finish a cross-curricular chapter. How do you evaluate the outcome?
a. Do you consider this evaluation as sufficient to conclude the working of your method?

b. Is it possible to conduct an evaluation in other ways as well?

9. Are there any gains or losses for the pupils by teaching in an interdisciplinary way?

10. Are there any gains or losses for the teachers by teaching in an interdisciplinary way?

11. Does it have any advantages if you compare this to teaching in a subject-specific way?

12. Is there a backside on this, does it have disadvantages if you teach in this manner?

13. How do you evaluate your interdisciplinary teaching?

   a. What would you say is the most positive?

   b. What do you think is a negative aspect?

14. Do you think cross-curricular teaching should be improved?

15. Is there any need to improve it for you by the government, the school or the teacher(s)?

Is there something else you want to mention in this interview?