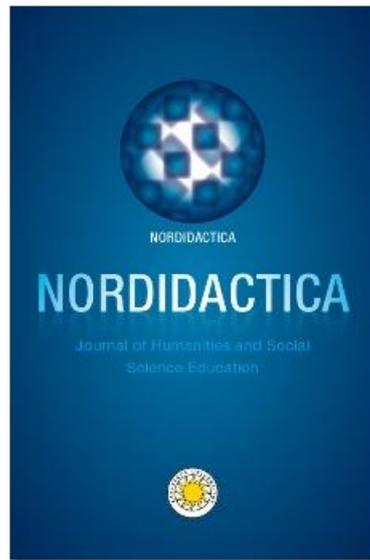


The Social Studies Subjects and Interdisciplinarity

Daniel Nyström



Nordidactica

- Journal of Humanities and Social Science Education

2019:3

Nordidactica – Journal of Humanities and Social Science Education

Nordidactica 2019:3

ISSN 2000-9879

The online version of this paper can be found at: www.kau.se/nordidactica

The Social Studies Subjects and Interdisciplinarity

Daniel Nyström

Department of Historical, Philosophical, and Religious Studies, Umeå University

Abstract: This article examines the ways in which the term tvärvetenskaplig is conceptualized within the social studies subjects (geography, religious education, civics, and history) in Swedish upper secondary school. The term tvärvetenskaplig is generally translated as interdisciplinary. Through a comparative analysis of syllabi (ämnesplaner), subject didactic textbooks, and schoolbooks, existing descriptions of the term are identified. These descriptions are in turn analyzed using theoretical perspectives on interdisciplinarity. The article agrees with the viewpoint that interdisciplinarity is a form of progressive discourse. Moreover, the analysis employs Heinz Heckhausen's typology of interdisciplinarity, which differentiates between indiscriminate, pseudo, auxiliary, composite, supplementary, and unifying interdisciplinarity. It is concluded that different subjects ascribe different understandings of interdisciplinarity to the concept of tvärvetenskaplighet.

KEYWORDS: TVÄRVETENSKAPLIGHET, INTERDISCIPLINARITY, COMPARATIVE SUBJECT DIDACTICS, SOCIAL STUDIES, UPPER SECONDARY SCHOOL, CIVICS, GEOGRAPHY, RELIGIOUS EDUCATION, HISTORY, HEINZ HECKHAUSEN

About the author: Daniel Nyström works as a post-doctoral researcher at the Department of Historical, Philosophical, and Religious Studies, Umeå University. He is part of Umeå Research Centre for Social Studies Didactics (UmSOD). Previously, he worked as a lecturer in the teacher training programs at Södertörn University.

Introduction

In the Swedish national curriculum for the upper secondary school, three out of four social studies subjects – geography (geografi), religious education (religionskunskap), and civics (samhällskunskap) – are described using the Swedish term *tvärvetenskaplig* (adjective, plural *tvärvetenskapliga*, noun *tvärvetenskaplighet*). The term literally means “cross-scholarly”, but typically translates as “interdisciplinary”.¹ Geography is described as a school subject based in both the social sciences and natural sciences; religious education as having its foundation in the academic discipline of religious studies (religionsvetenskap), which in turn is understood as an interdisciplinary enterprise in the intersection between historical, philosophical, psychological, and sociological traditions; and civics is seen as a combination of several social science disciplines, including political science, sociology, and economics as well as various disciplines within the humanities. History – which is not described as *tvärvetenskaplig* – is said to be found in various disciplines within both the humanities and the social sciences. By and large, these descriptions in the national curriculum text mirror those in other sources, such as various schoolbooks and subject didactics textbooks used in teacher training programs.

The use of the term *tvärvetenskaplig* is interesting because the supposed interdisciplinarity of the social studies subjects is introduced as something fixed; the school subjects are presented as *tvärvetenskapliga* as such. This is normally seen in formulations similar to “geography/religious education/civics is an interdisciplinary school subject”. At first glance, the description seems valid. Evidently, the social studies subjects pull together content, theories, and methods from different disciplinary traditions (Bronäs & Selander, 2002; Eklund & Larsson, 2009; Berglund, 2010; Eikli, 2013; Einarsson & Örbring, 2016). Yet, the description of the subjects as being *tvärvetenskapliga* as such differs from theoretical discussions of interdisciplinarity in which doing rather than being is emphasized (Weingart & Stehr, 2000; Lattuca, 2001; Sandström, 2003; Sunnemark & Åberg, 2004). From this perspective, interdisciplinarity implies some form of ongoing exchange between different scholarly traditions or academic disciplines. These theoretical discussions raise doubts as to how a school subject or an academic discipline can be interdisciplinary in itself.

Against this background, this article discusses what kinds of interdisciplinary practices circulate in each social studies subject. In this pursuit, I have found the typology introduced by Heinz Heckhausen – which distinguishes between six forms of interdisciplinarity: indiscriminate, pseudo, auxiliary, composite, supplementary, and unifying – to be helpful (Heckhausen, 1972). Indiscriminate interdisciplinarity is defined as a rudimentary form of interdisciplinarity in which someone possesses basic knowledge about different contents, theories, and methods. Pseudo-interdisciplinarity is the use of transdisciplinary computer applications or similar, in which no actual interaction between disciplines is taking place. Auxiliary interdisciplinarity includes the

¹ Cf. “tvärvetenskaplig” in ne.se and translate.google.com.

ways in which a specific discipline is implicitly influenced by the theories and methods of other disciplines. Composite interdisciplinarity includes situations where expertise from different academic backgrounds temporarily joins forces in order to complete a specific task. Supplementary interdisciplinarity involves the active correspondence between disciplines that share the same material field of study. Finally, unifying interdisciplinarity is defined as the result of two or more disciplines forming a new research area, i.e. the inauguration of a new academic discipline. Heckhausen's typology is useful because it shows that interdisciplinary practices take many forms and that it can be of didactical value to differentiate between them.

This article contributes to the growing field of studies in comparative subject didactics (Schüllerqvist & Osbeck, 2009; Nielsen, 2012; Ongstad, 2012; Schüllerqvist, 2012; Sandahl, 2014), and the main focus lies on the term *tvärvetenskaplig* and how it is described in the Swedish national curriculum for the upper secondary school, in schoolbooks, and in subject didactics textbooks used in teacher training programs. These are all sources that fill an important function for teachers when it comes to planning for and conducting teaching in the classroom (Goodson & March, 1996; Englund, 2011). Moreover, the national curriculum texts, schoolbooks, and subject didactics textbooks arguably affect the ways in which teachers understand specific school subjects. I take issue with the tendency to understand *tvärvetenskaplig* as a self-explanatory description of the social studies subjects. Thus, the aim of this article is to study which understandings of the term *tvärvetenskaplig* are prominent in the social studies subjects.

Research questions

Tvärvetenskaplighet is a label that is put on the social studies subjects. However, it is far from obvious what is meant by the term. Although the national curriculum lists a number of disciplines within the humanities, social sciences, and natural sciences, this list reveals little about the character of actual interdisciplinary practices. Thus as a first step I want to consider what meanings are ascribed to the term *tvärvetenskaplighet*:

1. How is *tvärvetenskaplighet* described in the national curriculum, schoolbooks, and subject didactics textbooks in each social studies subject?

The first question forwards us to more analytical tasks. If *tvärvetenskaplighet* is presented in certain ways in the sources, it is relevant to analyze the data using theoretical perspectives on interdisciplinarity. In addition to Heckhausen's typology introduced above, I distinguish between various discursive traits that tend to accompany discussions of interdisciplinarity. Following the work of Peter Weingart and Stephen Turner, I examine to what extent *tvärvetenskaplighet* is part of a progressive discourse of education (Weingart, 2000; Turner, 2000).

2. How can meanings that are ascribed to the term *tvärvetenskaplighet* be understood from various theoretical perspectives on interdisciplinarity?

After analyzing passages in the sources where *tvärvetenskaplighet* is elaborated upon, I turn to a discussion of the didactical implications these research findings have. Here, I contrast my findings with previous research on social studies didactics. Arguably, there are connections between characterizations of the social studies subjects and conceptualizations of interdisciplinarity, and this section discusses the fact that school subjects are at the same time eclectic constructions and narrow traditions.

3. What are the didactical implications of different understandings of *tvärvetenskaplighet* within the social studies subjects?

Method and sources

Three sources appear in this article: 1) the Swedish national curriculum text for the upper secondary school and attached commentaries, 2) schoolbooks in geography, religious education, civics and history, and 3) textbooks on subject didactics used in teacher training programs. The collection of data was centered around passages in the sources where the understanding of the term *tvärvetenskaplig* is explicitly outlined and/or the relationship between school subjects and academic disciplines is discussed. I regard the three kinds of sources as essential didactical resources for teachers. Even though they might not share the same didactical functions, the main focus has been to locate subject-specific understandings of interdisciplinarity irrespective of which source one looks at.

The current national curriculum for the upper secondary school includes separate subject syllabi (ämnesplaner) (Skolverket, 2011). These syllabi contain broad descriptions of each school subject, their characteristics and aims, as well as presentations of existing courses. Writings on *tvärvetenskaplighet* are most typically found in the first paragraph of the syllabus, where a general overview of the subject is given. These passages elaborate on what kind of analytical skills and subject content is being trained and the ways in which these connect to academic traditions. The Swedish National Agency for Education (Skolverket) also publishes commentaries on each syllabus, which are separate documents that comment on different aspects of the syllabus text. These commentaries tend to follow the structure of the syllabus but are more explorative in their approach.

When it comes to subject didactics textbooks, I focus on publications that are used in teacher training programs and that were published or at least updated after 2011, which is the year when the current national curriculum came into force (Skolverket, 2011). This has been possible for all subjects except geography, in which there are no subject didactic textbooks besides Jens Peter Møller's *Geografididaktik: Perspektiv och exempel* (2003). In order for me to give an updated picture of how subject didactics in geography is discussed, I also study Christina Odenstad's *Att förstå sin omvärld och sig*

själv (2013). This is a publication produced by The Swedish National Agency for Education (Skolverket) that outlines the subject didactics traditions in the four social studies subjects. In addition to these publications, I study the following textbooks in subject didactics: Magnus Hermansson Adler's *Historieundervisningens byggstenar: Grundläggande pedagogik och ämnesdidaktik* (2014), Malin Löfstedt's (ed.) *Religionsdidaktik – Mångfald, livsfrågor och etik i skolan* (2011), and Sture Långström and Arja Virta's *Samhällskunskapsdidaktik: Utbildning i demokrati och samhällsvetenskapligt tänkande* (2016).

Besides the national curriculum and subject didactics textbooks, I also study schoolbooks used in social studies teaching. The sources I look at are two schoolbooks in each school subject, which makes eight publications in total. All of these schoolbooks except one are published by the publishing companies Liber and Gleerups: *Geografi 1 och 2: Människan, resurserna, miljön, hållbar utveckling* (Östman, 2011), *Geografi 1* (Wiklund, 2012); *Epos 1b* (Sandberg, 2012), *Alla tiders historia 1b* (Almgren et al., 2011), *Religion och andra livsåskådningar* (Ring, 2015), *En människa, tusen världar* (Tuveson, 2015), *Libers samhällskunskap 1b* (West, 2017), and *Kompass till samhällskunskap 100* (Eliasson & Nolervik, 2011). In line with the national curriculum and subject didactics textbooks, most of these textbooks make use of the term *tvärvetenskaplig* to describe the character of the school subject at hand. The passages where *tvärvetenskaplighet* is presented are fairly detailed, including considerations of the academic traditions that the school subject draws on. However, because the textbooks are to be read by pupils, they do not normally include discussion of didactical issues or similar.

In this article, I assemble a selection of publications that is presently used in teacher training programs (when it comes to subject didactics textbooks) and upper secondary teaching (when it comes to schoolbooks). It does exist other textbooks and schoolbook which could have been included in the study. My assessment is, however, that additional publications do not significantly alter the empirical results put forward in this article. In a comparative analysis such as this one, it is important that the sources that are being compared are fairly symmetrical in quality and quantity. Therefore, I have rejected the inclusion of all available textbooks and schoolbooks in the study because that would have resulted in an asymmetrical collection of sources. For the purpose of this study, it is of less importance which of the social studies subjects has the richest text production. All translations of the sources are mine.

Methodologically speaking, what does it mean to study the subject didactics traditions within the social studies subjects from comparative perspectives and what can a comparative approach contribute with? I argue that a comparative analysis of national curriculum texts, subject didactics textbooks, and schoolbooks discloses the ways in which the understanding of different concepts varies depending on the educational context. When different conceptualizations of a term such as *tvärvetenskaplighet* are juxtaposed, it becomes clear that the didactical traditions within the social studies differ from each other. Depending on the history of the school subject and its current status and function within the educational system, a term such as *tvärvetenskaplighet* is likely to be given a variety of meanings.

Theoretical perspectives

In order to interpret the different meanings that are ascribed to the term *tvärvetenskaplighet*, I have consulted theoretical discussions on interdisciplinarity. I think it is important to emphasize at the outset that this article does not study the relationship between school subjects and academic disciplines. Within the scope of this article, I accept the eye-catching discrepancy between the terms *tvärvetenskaplighet* and *interdisciplinarity*. However, it should be noted that the theories of interdisciplinarity that I am referring to generally speak of academic conditions. Nonetheless, I argue that the aspects of the theories of interdisciplinarity that I delineate below are applicable for analyzing *tvärvetenskaplighet* in sources relating to the social studies subjects in upper secondary teaching.

As Peter Weingart points out, interdisciplinarity is a positively charged word that is often seen in policy documents and other political contexts where strategies for research are being promoted (Weingart, 2000). From a policymaker's viewpoint, it is deemed that engaging in collaboration across disciplinary borders is a favorable approach to research. The term interdisciplinarity is associated with values that external actors cherish, such as scientific progress, originality, and societal relevance, and interdisciplinarity is regarded as directed towards research questions that reach beyond internal disciplinary hair-splitting. The term itself emerged during the post-war era as a way of restraining what was thought of as the negative effects of scientific specialization. In recent decades, interdisciplinarity has gradually lost momentum as a catchphrase, which is arguably due to competition from new terms like collaboration (*samverkan*) and transdisciplinarity (*transdisciplinartitet*), but also because interdisciplinary projects have struggled to fulfill their promises (Weingart, 2000; Thompson Klein, 2017).

Weingart disputes the ways in which interdisciplinarity tends to be framed in opposition to disciplinarity, an opposition that seems to suggest that interdisciplinarity is one thing and disciplinarity another (Weingart, 2000; See also Klausen 2011, 2014 for similar remarks). Contrary to that, he argues that interdisciplinarity does not relate to disciplinarity dichotomously, but rather that the two share common difficulties related to research. Regardless of whether one labels it interdisciplinarity or disciplinarity, all research activities are forced to find a balance between originality and moderation and between change and tradition. Also, as he convincingly shows, the term interdisciplinarity has harbored quite contradictory meanings over the years, moving between extremes such as extended scope and enhanced focus, synthesis and specialization, and border-crossing and demarcation. This is explained by the prefix "inter", which alludes to a practice that moves between separate units but in so doing constructs new dividing lines. Therefore, it is difficult to give a general definition of the term interdisciplinarity, and instead one must ask what the term signifies in specific contexts and what the term is positioned against.

The existence of different understandings of the term interdisciplinarity has encouraged researchers to develop typologies. Julie Thompson Klein has contributed with an ambitious overview in the article "Typologies of Interdisciplinarity: The

boundary work of definition” (2017), in which she compiles the dominant understandings of the terms multidisciplinary, interdisciplinarity, and transdisciplinarity. In all, she differentiates between nearly thirty variants of the terms found in previous discussions. Following Weingart, Thompson Klein notes that interdisciplinarity is often seen in political discourses where research is framed as something progressive. Because the term itself is plastic, it is possible to mold it according to the agenda of the day. Thompson Klein’s compilation of typologies is important because it explicitly shows the wide variety of usages and understandings of the term.

After reviewing Thompson Klein’s compilation of typologies, I decided to work analytically with a typology presented by Heckhausen in the oft-cited OECD report *Interdisciplinarity: Problems of Teaching and Research in Universities* (1972). As mentioned at the outset, Heckhausen discusses six different forms of interdisciplinarity in this report: indiscriminate, pseudo, auxiliary, composite, supplementary, and unifying. What these types of interdisciplinarity contribute with in an analysis of *tvärvetenskaplighet* is, I think, the focus on interdisciplinarity as a practice.

Heckhausen evaluates to what extent each type is a productive way of conducting interdisciplinarity, for example, indiscriminate interdisciplinarity, which is described as an encyclopedic approach that focuses on compiling knowledge and developing skills without explicitly reflecting on which generic competences are developed in the process. The lack of reflection makes Heckhausen question whether such a practice can be regarded as interdisciplinarity in the first place (Heckhausen, 1972: 87). Similar criticism is directed towards pseudo and auxiliary interdisciplinarity, where the lack of explicit formulations concerning interactions between disciplines is viewed as a problem. Important to Heckhausen is the extent to which on-going exchanges and interactions between contents, theories, and methods are taking place. Therefore, he clearly favors composite and supplementary interdisciplinarity, which bring different knowledge and skills together for either solving external problems or adding to existing disciplinary practices.

In my opinion, the normative dimension of Heckhausen’s typology serves as a reminder that neither the claim for *tvärvetenskaplighet* in the sources nor my analysis of the usage of the term can be viewed as neutral enterprises. On the contrary, normative assumptions permeate all discussions of *tvärvetenskaplighet*. Lately, discussions of so-called subject-integrated teaching (*ämnesintegrerad undervisning*) have (re)emerged in the Swedish educational discourse (Blanck, 2014; Samuelsson, 2014; Olovsson & Näsström, 2018). Subject-integrated teaching seeks to formulate didactical approaches in which teachers and pupils work thematically, focusing on problem-solving from different theoretical and methodological perspectives (Burns 1995; Beane, 1997; Alberts 2010) There are thus strong similarities between *tvärvetenskaplighet* as a practice and subject-integrated teaching.

Descriptions of *tvärvetenskaplighet*

In this section, I present the reading of the sources based on the first research question: How is *tvärvetenskaplighet* described in the national curriculum, schoolbooks, and subject didactics textbooks in each social studies subject? I discuss one school subject at a time, starting with geography and moving on to religious education, civics, and history. Even though *tvärvetenskaplighet* is not a concept that is employed to describe history, there are plenty of descriptions of the subject's interdisciplinary character. This makes history relevant to include in the discussion.

Geography, which was not a subject in the upper secondary school between the late 1960s until its reintroduction in the national curriculum of 1994, is generally described as a subject resting on two pillars – culture geography and natural geography. In Møller's subject didactics textbook *Geografididaktik*, it is stated that geography exists “right in the middle of the traditional division between the humanities and the natural sciences” (Møller 2003, p. 13). Standing with one foot in one tradition and the other in another challenges the school subject to combine contents, theories, and methods. According to several sources, this is accomplished through the development of a “holistic view” (“helhetssyn”), “an integrated system vision” (“integrerad systemsyn”), and “interweaving subject contents” (“innehållet vävs samman”) (Wiklund, 2012: 8; Skolverket 2011f; Skolverket, 2011b).

However, references to weaving and holistic views might be slightly misleading because actual interdisciplinary practices are seldom as peaceful as such metaphors imply. Odenstad acknowledges the recurrence of tensions between the two traditions through processes of classification (Odenstad, 2013: 103–104). In Sweden, geography belongs to the social studies subject group, whereas in Denmark and Finland it belongs to the natural science subject group. Odenstad stresses that classifications of school subjects are not merely symbolic undertakings. On the contrary, processes of classification can be assumed to affect the content and perspectives in geography teaching when it is expected to be in tune with either social studies subjects or natural science subjects. Following this line of thinking, geography would be more of a humanistic/social science subject in a Swedish educational context.

In schoolbooks, geography is presented either through the different academic traditions that it relates to or through a thematic study connected to the goals that are formulated in the subject syllabus. In the first schoolbook, the table of contents includes sections called “Population geography”, “Climatology”, “Quaternary geology”, and “Oceanography”, whereas the second schoolbook includes sections labeled “The Earth, our planet”, “Sustainable development”, and “Humans, populations, humanity”. However, this difference does not drastically affect the way in which geography is characterized. In the first schoolbook, one can read: “It is difficult to explain the relationship between the different parts of geography without first knowing them. This means that the subject is best studied by first learning the different parts before bringing them together into a whole” (Wiklund 2012: 8). In the quote, it is suggested that a holistic understanding of the subject emerges more or less automatically when the different parts are studied independently. The second schoolbook with a thematic

outline does not discuss how geography methodologically brings different parts together, but it similarly states that the ambition is to promote the idea of geography as a cohesive school subject (Östman, 2011: 2, 53–54).

Turning now to religious education, the school subject has over the past one hundred years changed quite dramatically, transforming from a confessional to a secular subject. The secular turn means that religions other than Christianity, tensions between faith and science, and various humanistic and social science perspectives have gradually been included in the subject syllabus. One of the schoolbooks discusses what *tvärvetenskaplighet* refers to in the case of religious education. It is stated that the interdisciplinary character of the subject appears through the discussion of religion and religiosity from a great variety of disciplinary viewpoints – sociological, philosophical, psychological, and historical (Tuveson, 2015: 10). Moreover, interdisciplinary approaches are seen to open up for interesting comparisons, both between different religious traditions and between different disciplinary understandings of religion and religiosity. In the second schoolbook, no discussion of *tvärvetenskaplighet* is included; however, there is a section that thoroughly presents the emergence of religious studies at universities and its division into different subdisciplines such as history of religion, psychology of religion, sociology of religion, and philosophy of religion (Ring, 2015: 312–318).

The sources present a fairly unanimous understanding of religious education as primarily relating to one academic discipline – religious studies – which in turn is seen as having an interdisciplinary profile (Skolverket, 2011h). Similar to geography, it is occasionally mentioned that viewing religion and religiosity from different disciplinary perspectives might give rise to competing or conflicting takes on the phenomena at hand. In the subject didactics textbook *Religionsdidaktik*, such tensions are exemplified with reference to the historically dominant position of Christianity in the Swedish educational context and its current didactical effects on multi-religious education (Löfstedt, 2011). Because the national curriculum text explicitly states that Western traditions and Christian ethics should guide which norms and values are transmitted in Swedish schools, religious education is given the complicated assignment to both favor Christianity and, at the same time, treat it as a (heterogeneous) religious tradition among other traditions.

Next in line is civics, which is also described as an interdisciplinary school subject. In the subject didactics textbook *Samhällskunskapsdidaktik*, this is formulated as follows:

Civics is a teaching subject whose content is composed of components from various social sciences such as political science, economics and sociology. Therefore, it is often characterized as a block subject. It can also be characterized as an interdisciplinary [tvärvetenskapligt] subject. (Långström & Virta, 2016: 17)

Civics stands out in the sources for repeatedly being characterized as a block subject. In didactical terms, the block metaphor points towards an understanding of the school subject as consisting of more or less separate elements. However, it is not necessarily different academic traditions that form the existing blocks. In the subject didactics

textbook, civics is described as a school subject that has distanced itself from the academic traditions that it draws on (Långström & Virta, 2016: 24). In order to formulate a coherent profile, the school subject has downplayed the connection to academic disciplines.

Similar to geography, the importance of providing an overview of different issues is emphasized in civics schoolbooks: “Different sciences shed light on society from different perspectives and help us see the whole picture” (Eliasson & Nolervik, 2011: 10). In this schoolbook, the issue of unemployment is taken as an example of this. By approaching unemployment from different perspectives, it is argued that a holistic understanding of the issue is gained. The second schoolbook underlines “the scientific approach” as a prominent feature of civics, for example, training in source criticism, pinpointing of relevant research problems, and formulating research questions (West, 2017: 7). The scientific approach is placed at center stage, and the schoolbook begins with a thorough discussion of epistemological and methodological aspects.

When it comes to history, the subject is described in the subject syllabus as drawing on various disciplines within the humanities and social sciences. Similar to civics, source criticism is held up as a key analytical skill that is being trained. As previously stated, the term *tvärvetenskaplig* is not present in any account of history. Nonetheless, the subject syllabus stresses that historical writing makes use of both qualitative and quantitative research methods and that the subject can be divided into different “sub-fields” (delområden), for example, economic history, social history, and environmental history (Skolverket, 2011g). Similar to religious education, history is predominantly understood as corresponding to the academic discipline with the same name. This is the case in the subject didactics textbook *Historieundervisningens byggstenar*, which exclusively focuses on the academic discipline of history when addressing the relation between history in schools and at universities (Hermansson Adler, 2014). When reading schoolbooks in history, additional academic disciplines and areas of expertise emerge. Besides the economic history, social history, and environmental history mentioned in the subject syllabus, archeology, technologies for dating objects, DNA technology, and philology appear as crucial areas of expertise (Almgren et al., 2011; Sandberg, 2012). These areas of expertise are mentioned but are somewhat marginalized in relation to historical knowledge production in general. Contributions from research fields other than history are hinted at through references to “excavations” and “archeological findings” and similar.

The above is a compilation of the descriptions of *tvärvetenskaplighet* and the relation between school subjects and academic disciplines found in different sources linked to the social studies subjects. In addition to these formulations, I have found one supplementary mode of using the term *tvärvetenskaplig*. In the subject didactics textbook *Samhällskunskapsdidaktik*, the relation between subject content and pedagogy is presented as a form of interdisciplinarity. This is in turn linked to theories of pedagogical content knowledge (Långström & Virta, 2016: 19–20).

Interdisciplinary perspectives on *tvärvetenskaplighet*

I will now move on to a discussion of how descriptions of *tvärvetenskaplighet* found in the sources thus far can be interpreted. The discussion draws on previously outlined theoretical perspectives on interdisciplinarity. What can be said at this point is that all four social studies subjects seek to present themselves as providing broad and relevant competences. This supports Weingart's observation that discourses of interdisciplinary practices often serve strategic purposes. Weingart also sees the construction of progressive discourses on interdisciplinarity as somewhat paradoxical. Through references to interdisciplinarity, school subjects arguably reify the boundaries of the subject, and references to interdisciplinarity fill the function of making school subjects competitive in relation to other school subjects.

Stephen Turner makes a similar argument by noticing that, externally, it often seems more important to communicate an interesting profile than to present actual subject content (Turner, 2000). This is why it can be difficult to find good examples of interdisciplinarity, because it tends to appear as progressive narratives rather than as reports of how it has been conducted. Turner differs between internal and external disciplinary markets as a way of pinpointing the functions and uses of existing interdisciplinary narratives. The internal market is characterized by the every-day business of a discipline, namely teaching and research activities. Within the internal market, teachers and researchers develop a way of speaking that can be described as the professional language of the discipline. However, strategically, the professional language of a discipline is not suitable for communicating with external actors because it is not sufficiently communicative. Therefore, disciplines have to develop separate stories about the discipline, including one that is used in teaching and research and one that is used to compete for funding and public attention. It is a question of survival, and disciplines that ignore the development of an external narrative will appear as unmotivated and outdated.

History is one of the disciplines that are recognized by Turner for not sufficiently formulating external narratives. Perhaps the same can be said about the school subject of history for not employing the discursive trait *tvärvetenskaplighet*? This impression is softened by the fact that the subject syllabus for history is otherwise written in the same progressive modus as the syllabi for the other social studies subjects. When stating that historical perspectives are found in several academic disciplines, the syllabus for history connects to widespread strategic narratives of education, and the acknowledgment of historical research outside the history discipline can be regarded as a way of making the school subject more relevant to external actors. The syllabus employs all components of an interdisciplinary narrative without having to use the term *tvärvetenskaplig*.

How, then, can the presentation of *tvärvetenskaplighet* be understood from the perspective of Heckhausen's typology? Recurring in several sources is the idea that basic competences within a wide range of subject matters ultimately leads to a holistic view. For example, in geography the study of different disciplinary fields of cultural and natural geography is supposed to form a whole. In civics, similar ideas are presented through references to "blocks". Through its encyclopedic character, I would label this

type of interdisciplinarity as indiscriminate, which is the type that Heckhausen argues is common in vocational training, such as teacher training programs. Writing in 1972, Heckhausen's description of teacher training programs is arguably a bit out of date. Still, it is noteworthy that ideas of encyclopedic practices are prevalent in sources describing geography and civics. Although indiscriminate interdisciplinarity gives some rudimentary knowledge about different contents, theories, and methods, Heckhausen is nevertheless skeptical as to what extent such an approach can mirror the content of academic disciplines: "There is no research approach possible which represents the corresponding counterpart of the naïve superficiality of encyclopedic teaching" (Heckhausen, 1972: 87).

Didactically speaking, I find it plausible that pupils will develop an understanding of the whole by studying different parts of a subject. To study the different parts of geography or civics is undoubtedly a transformative activity that improves both subject knowledge and analytical skills. Still, and following the argument of Heckhausen, one must ask what possibilities teachers have to remain in control of the holistic view that is being trained when following an indiscriminate interdisciplinary practice.

The fact that pedagogical ideas of holistic views can be categorized as indiscriminate interdisciplinarity does not mean that geography and civics are predominantly encyclopedic in nature. On the contrary, these subjects frequently promote a problem-solving approach as a key feature of the school subjects. In the previous section, this was exemplified by the approach to unemployment from social, political, and economic angles within civics, and a similar example can be found within geography where natural resources are discussed from both cultural and natural science perspectives (Östman 2010: 3–5, 51–54). This practice is described as composite interdisciplinarity by Heckhausen, meaning that a variety of disciplinary expertise is brought together in order to shed light on a specific issue. Such temporary alliances are often essential for understanding complex problems. A limitation Heckhausen sees in composite interdisciplinarity is that temporary alliances rarely aim at bridging differences between disciplines (Heckhausen 1972: 88). He uses a jigsaw puzzle metaphor to illustrate how composite interdisciplinarity contributes to a particular issue by adding pieces of knowledge and perspectives to the whole. The jigsaw puzzle symbolizes the specific issue at hand. What he questions is the extent to which the solution of the puzzle leads to generic analytical insights, i.e. mutual interdisciplinary exchange.

Indeed, ideas of indiscriminate and composite interdisciplinarity are also present in writings on religious education and history. This is most visible in religious education, where the emphasis on world religions in the syllabus is quite distinctly executed in schoolbooks by placing Judaism, Christianity, Islam, and Hinduism in separate chapters. However, the study of different religious traditions is seldom discussed in indiscriminate or composite terms, and it is rarely said to lead to a certain holistic view of religion as such. I would suggest that the understanding of *tvärvetenskaplighet* in sources relating to religious education is better conceptualized as supplementary interdisciplinarity. With regard to supplementary interdisciplinarity, it is assumed that there is a main academic discipline that needs to be continuously enriched through collaboration and exchange with additional disciplinary traditions. This is a type of

interdisciplinarity that fits well with how religious education is described in the sources. The syllabus writes about the school subject as drawing on several academic disciplines alongside the academic discipline of religious studies (*religionsvetenskap*). Supplementary interdisciplinarity includes a meta-perspective in which theoretical assumptions are regularly challenged. Contrary to composite interdisciplinarity, the purpose is not to merge into temporary alliances, but rather to incorporate additional theoretical traditions.

When it comes to history, it might be difficult to ascribe a certain type of interdisciplinarity to a subject that rejects the term *tvärvetenskaplighet*. Although I argue that history has allied itself with a progressive narrative on education, the actual interdisciplinarity practice is somewhat difficult to classify. The reluctance to not using the term *tvärvetenskaplig* must be taken into account, making it possible to understand the interdisciplinarity practice as auxiliary. From Heckhausen's point of view, auxiliary interdisciplinarity often focuses on cross-disciplinary borrowing of methods. This seems to fit in well with history, which quite tacitly gives credence to archeology, dating techniques, philology, etc., for their roles as assistant disciplines.

Descriptions of *tvärvetenskaplighet* in syllabi, schoolbooks, and subject didactics textbooks in civics, geography, and religious education reveal distinctive approaches to interdisciplinarity, and each school subject endorses its specific understanding of interdisciplinarity. Indiscriminate interdisciplinarity is particularly visible in civics and geography, emphasizing additive approaches to subject content by speaking of blocks and parts. This type is encyclopedic in nature, and it does not explicitly theorize the relation between the parts or the ways in which they bring about a whole. Still, composite interdisciplinarity is equally visible in civics and geography, focusing on how different disciplinary expertise might understand specific problems and issues. Following the argument of Heckhausen, these types tend to reinforce ideas of disciplinary boundaries rather than to deconstruct them (Heckhausen, 1972). From this perspective, supplementary interdisciplinarity is interesting because it acknowledges an ongoing theoretical correspondence between different disciplines. This correspondence is more concretely formulated in sources relating to religious education. Finally, I would hesitate to label any of the here-mentioned interdisciplinarity as unifying. Even though civics and geography are acknowledged as synthesizing, and hence unifying, various disciplinary contents, my analysis suggests that such an understanding misses the theorizations that are needed in order for an interdisciplinarity practice to be deemed to be unifying.

Subject didactics implications

It is now time to discuss how different understandings of *tvärvetenskaplighet* affect the characterizations of the four social studies subjects. As previously mentioned, my point of departure is that the kind of sources studied in this article influence how teacher candidates and teachers new to the profession perceive particular school subjects. This approach is close to Ivor F. Goodson and Colin J. March's notion of a "preactive" field

of study, that is, the study of resources that precede the actual teaching situation (Goodson & March, 1996). Although I do not claim to reveal how different understandings of *tvärvetenskaplighet* play out in actual teaching situations, I want to present some remarks on possible didactical effects of different epistemological stances. Hence, in this section, I discuss the typology of interdisciplinarity in relation to previous subject didactics research.

In a study on experienced teachers' views on which key didactical insights they gained over their careers, a recurring opinion was the importance of solid content knowledge (Bernmark-Ottosson, 2009; Nygren, 2009). That is, a civics teacher benefits from knowing as much as possible about civics, a geography teacher as much as possible about geography, and so on. Solid content knowledge made the teachers feel secure when teaching, and it gave them a sense of control over the teaching situation. More specifically, to possess solid content knowledge made it easier to make a relevant selection of content and to know what motivated the selection and how it corresponded to the school subject as a whole. Thus, these teachers emphasized the value of encyclopedic knowledge and that sufficient expertise is the foundation of successful teaching. Students I met at teacher training programs were astonished by the experienced teachers' insights. Not that it is surprising that solid content knowledge is useful, but that the students expected the didactical reflection of an experienced teacher to be more eye-opening. Moreover, the students questioned to what extent they can benefit from the experienced teachers' insight before having had the possibility to build up solid content knowledge of their own.

While waiting to develop solid content knowledge, prospective teachers are dependent on other teaching methods. In this pursuit, national curriculum texts, schoolbooks, and subject didactics textbooks play a vital role. As pointed out by Turner, these kinds of texts are likely to form a generation of teachers (Turner, 2000). Teachers of a specific generation are trained in the same ideas of teaching, teach using the same set of educational materials, and are affected by the same official documents for teaching and schooling. Other research confirms that teachers are strongly shaped by the time period in which they were trained and when they were new to the profession (Schüllerqvist & Osbeck, 2009). Consequently, as time goes by and they become more experienced, teachers tend to distance themselves from both schoolbooks and official documents. Even though the interest for new approaches to teaching is supposedly high among teachers, there are few opportunities for such further education due to a lack of economic resources. It is not farfetched to suggest that this situation leads to some variant of negative routinization. Possibly, there are connections between negative routinization and indiscriminate interdisciplinarity approaches.

My discussion of which types of interdisciplinary practices are favored in geography, religious education, civics, and history shows that the didactical traditions are asymmetrical. As stated in previous research, teachers in geography often have their training in some other social studies subject than geography (Nilsson, 2009). Moreover, the amount of subject didactical research on geography in the Swedish context is remarkably small, and the one subject didactics textbook that is available is an adaption of a Danish textbook. All of this bears witness to the fact that geography for 25 years

has been excluded as a mandatory school subject in upper secondary teaching. In relation to interdisciplinarity, the subject seems torn between what the syllabus stipulates as primary content and a traditional understanding of the disciplinary parts that build up the subject as a whole. As was seen when comparing the table of contents between the two schoolbooks studied, the first follows the syllabus and the second follows the multi-disciplinary understanding of the subject.

There are similarities between geography and religious education in this regard. As Osbeck states, a large proportion of research on religious education didactics is written by scholars trained in disciplines other than religious education, pointing towards the fact that research in this field is still in its early stages (Osbeck, 2017). Sources concerning religious education often emphasize transformative aspects of the school subject such as the turn from confessional to secular religious education and the shift from exclusively focusing on Christianity to taking a multi-religion approach. Occasionally the school subject speaks in defense of the subject in relation to natural science. This is the case both in schoolbooks and subject didactics textbooks when probing the question of faith and scientific knowledge. At the same time, religious education has been given renewed relevance through its focus on existential and ethical perspectives on human life (Skeie, 2018). Because most people think about the meaning of life, religious education is promoted as a school subject that approaches this issue from interdisciplinary perspectives. Yet another context that has increased the relevance for religious education is contemporary migration and the emergence of new forms of multicultural and multi-religious European societies (Sander & Danielsson, 2015). These recent tendencies in religious education stimulate the use of supplementary interdisciplinarity, i.e. the incorporation of a wide range of disciplinary perspectives.

Among the social studies subjects, civics and history have the most developed traditions of subject didactics. In subject didactics research, civics is often presented as a school subject that carries the burden of competing expectations (Bronäs & Selander, 2002), and these expectations often center around the relationship between qualification and socialization (*kunskap och fostran*). From a comparative viewpoint, it might be questioned to what extent these expectations are unique to the school subject of civics. Arguably, all social studies subjects deal with competing expectations, and the idea of qualification and socialization as specifically visible in civics might just as well be a result of the fact that civics through a well-developed subject didactics tradition enjoys the privilege of defining the subject in relation to other subjects.

Similar to Johan Sandahl, I would like to raise the question of to what extent subject didactics traditions in civics uphold a dated understanding of the school subject (Sandahl, 2018). Sandahl argues that civics must focus more on “dynamic concepts” rather than on the study of disciplinary blocks as a way to avoid content overload, but also, and more importantly, to allow for teachers and pupils to be more active in the formulation of what makes the school subject relevant in present-day society (Sandahl, 2014). Civics and history share some of these dynamic concepts, most prominently source criticism, which is said to function as a safeguard to the anti-democratic use of history and propaganda. The way in which *tvärvetenskaplighet* is conceptualized within civics shows that the subject in part rests on an indiscriminate understanding of the term

by promoting the study of subject blocks. I argue that such a conceptualization of interdisciplinarity runs the risk of obstructing attempts at practicing supplementary approaches. Therefore, it is important to promote more open-ended understandings of the term *tvärvetenskaplighet*, which facilitate the practice of additional forms of interdisciplinarity.

Concluding remarks

Three out of four social studies subjects are referred to as *tvärvetenskapliga* in the Swedish national curriculum for upper secondary school. The term *tvärvetenskaplig* is normally translated as “interdisciplinary”. Through theoretical perspectives on interdisciplinarity, this article has studied how the term *tvärvetenskaplig* is conceptualized in the different social studies subjects. The point of departure was that interdisciplinarity is a practice rather than a fixed state, that it is a *doing* rather than a *being*. To interpret the characteristics of the practice, I made use of a typology developed by Heinz Heckhausen that distinguishes between six forms of interdisciplinarity, namely indiscriminate, pseudo, auxiliary, composite, supplementary, and unifying. In addition, and following the work of scholars such as Peter Weingart and Stephen Turner, I have discussed interdisciplinarity as a progressive narrative of education.

This article has argued that comparative approaches make it possible to observe subject-specific understandings of a concept such as *tvärvetenskaplighet*, and by juxtaposing geography, religious education, civics, and history similarities and differences emerge. What the article has shown is that different takes on *tvärvetenskaplighet* affect how a particular school subject is presented. Depending on which form of interdisciplinarity that is being practiced, the narrative that describe the functions and uses of a particular school subject differs. This means that the understanding of *tvärvetenskaplighet* to a certain degree determines how contents, theories, and methods are framed. Interdisciplinary practices arguably partake in the construction and upholding of broader discourses of the traditions and character of the different social studies subjects.

Three kinds of sources were examined – syllabi (ämnesplaner), subject didactics textbooks, and schoolbooks. The study of the sources indicated that conceptualizations of *tvärvetenskaplighet* are relatively consistent in sources relating to the same school subject. However, when comparing sources across school subjects the understanding of *tvärvetenskaplighet* differs quite significantly. This finding underlines the importance of comparative subject didactics. In a situation where the different social studies subjects have established rather autonomous subject didactics traditions, comparative subject didactics appears as a way to start a dialogue between them. As I see it, contrasting different subject didactics traditions holds the potential to soften the disciplinary boundaries between such research traditions. In an extension of this argument, it is likely that softened boundaries in the field of social studies didactics would help teacher candidates and teachers new to the profession draw insights from

different subject didactics traditions and, as a consequence, open up for more reflexive and productive interdisciplinary approaches.

Interpreted through the typology of Heckhausen, this article found several interdisciplinary practices in the sources. Within geography and civics, the term *tvärvetenskaplig* was often connected to the activity of dividing up the subject into manageable chunks. This was interpreted as a form of indiscriminate interdisciplinarity, that is, an encyclopedic approach to content, theories, and methods associated with a particular school subject. Alternatively, within geography and civics *tvärvetenskaplighet* was also framed as a way of promoting subject-integrated teaching, which I discussed as a form of composite interdisciplinarity. This was seen in the examples regarding different disciplinary views on unemployment and cultural and natural science perspectives to natural resources. Following the normative aspects of Heckhausen's typology, none of these types of interdisciplinary practices sufficiently deconstruct disciplinary boundaries. In religious education, I considered the wide variety of disciplinary viewpoints on religion and religiosity to be a form of supplementary interdisciplinary practice. The difference between religious education on the one hand and geography and civics on the other was that religious education has historically been contested through secular norms and scientific knowledge. This situation has rendered religious education open to theoretical and methodological influences from a wide variety of academic disciplines. Finally, history did not employ the concept of *tvärvetenskaplighet* at all. However, the ways in which other areas of expertise, such as archeology, technologies for dating objects, DNA technology, and philology, were said to assist the main discipline of history was analyzed as a form of auxiliary interdisciplinary practice.

References

Sources

Almgren, H., Bergström, B. & Löwgren, A. (2011). *Alla tiders historia 1b*. Malmö: Gleerups

Eliasson, M. & Nolervik, G. (2011). *Kompass till samhällskunskap 100*. Malmö: Gleerups

Hermansson Adler, M. (2014). *Historieundervisningens byggstenar. Grundläggande pedagogik och ämnesdidaktik*. Stockholm: Liber

Långström, S. & Virta, A. (2016). *Samhällskunskapsdidaktik: Utbildning i demokrati och samhällsvetenskapligt tänkande*. Lund: Studentlitteratur

Löfstedt, M. (Ed.) (2011). *Religionsdidaktik: Mångfald, livsfrågor och etik i skolan*. Lund: Studentlitteratur

Møller, J. P. (2003). *Geografididaktik: Perspektiv och exempel*. Stockholm: Liber

- Odenstad, C. (2013). *Att förstå sin omvärld och sig själv. Samhällskunskap, historia, religion och geografi*. Stockholm: Skolverket
- Ring, B. (2015). *Religion och andra livsåskådningar*. Stockholm: Liber
- Sandberg, R. (2012). *Epos 1b*. Stockholm: Liber
- Skolverket (2011a). *Läroplan, examensmål och gymnasiegemensamma ämnen för gymnasieskolan 2011*. Stockholm: Skolverket
- Skolverket (2011b). Om ämnet Geografi. Stockholm: Skolverket (Accessed 2019-02-01)
https://www.skolverket.se/download/18.6011fe501629fd150a28922/1530187057456/Kommentarmaterial_gymnasieskolan_geografi.pdf
- Skolverket (2011c). Om ämnet Historia. Stockholm: Skolverket (Accessed 2019-02-01)
https://www.skolverket.se/download/18.6011fe501629fd150a2892b/1530187210036/Kommentarmaterial_gymnasieskolan_historia.pdf
- Skolverket (2011d). Ämne Religionskunskap. Stockholm: Skolverket (Accessed 2019-02-01)
https://www.skolverket.se/download/18.6011fe501629fd150a2894b/1530187666619/Kommentarmaterial_gymnasieskolan_religionskunskap.pdf
- Skolverket (2011e). Om ämnet Samhällskunskap. Stockholm: Skolverket (Accessed 2019-02-01)
https://www.skolverket.se/download/18.6011fe501629fd150a2894d/1530187700749/Kommentarmaterial_gymnasieskolan_samhallskunskap.pdf
- Skolverket (2011f). Ämne: Geografi. Stockholm: Skolverket
- Skolverket (2011g). Ämne: Historia. Stockholm: Skolverket
- Skolverket (2011h). Ämne: Religionskunskap. Stockholm: Skolverket
- Skolverket (2011i). Ämne: Samhällskunskap. Stockholm: Skolverket
- Tuveson, R. (2015). *En människa, tusen världar. Religionskunskap 1*. Malmö: Gleerups
- West, D. (2017). *Libers samhällskunskap*. Stockholm: Liber
- Wiklund, J. (2012). *Geografi 1. För gymnasieskolan*. Falköping: Capensis
- Östman, P. (2011). *Geografi. Människan, resurserna, miljön, hållbar utveckling*. Stockholm: Liber

Literature

- Alberts, W. (2010). The Academic Study of Religions and Integrative Religious Education in Europe. *British Journal of Religious Education* 32(3), 275–290
- Beane, J. A. (1997). *Curriculum Integration: Designing the Core of Democratic Education*. New York: Teachers College Press
- Berglund, J. (2010). Religionsdidaktik. In J. Svensson & S. Arvidsson (Eds), *Människor och makter 2.0. En introduktion till religionsvetenskapen*. Halmstad: Högskolan i Halmstad
- Bernmark Ottosson, A. (2009). Samhällskunskapslärare. In B. Schüllerqvist, & C. Osbeck (Eds), *Ämnesdidaktiska insikter och strategier. Berättelser från gymnasielärare i samhällskunskap, geografi, historia och religionskunskap*. Karlstad: Karlstad University Press
- Blanck, S. (2014). *När ämnen möts. En analys av samhällskunskapsämnets funktioner och karaktärer vid ämnesintegrerad undervisning*. Karlstad: Karlstad University Press
- Bronäs, A. & Selander, S. (2002). Samhällskunskap som skolämne. In B. Falkevall & S. Selander (Eds), *Skolämne i kris?* Stockholm: HLS Förlag
- Burns, R. C. (1995). *Dissolving the Boundaries. Planning for Curriculum Integration in Middle and Secondary Schools*. Charleston, WV: Appalachia Educational Lab.
- Eikli, E. (2013). Norwegian School Geography and Geographical Education: A New Research Field? *Norsk Geografisk Tidsskrift* 67(3), 128–134
- Einarsson, E & Örbring D. (2016). Ämnesdidaktiska hörnet – skolämnet geografi i relation till geologi. *Geografiska Notiser* 74(2), 61–63
- Englund, B. (2011). Vad gör läroböcker? In N. Ammert (Ed.), *Att spegla världen. Läromedelsstudier i teori och praktik*. Lund: Studentlitteratur
- Eklund, N & Larsson, A. (2009). Samhällskunskapen och disciplinfrågan. Om utbildning av lärare i samhällskunskap. *Utbildning & Demokrati* 18(1), 69–91
- Goodson, I. F. & Marsh, C. J. (1996). *Studying School Subjects*. London: The Falmer Press
- Heckhausen, H. (1972). Discipline and Interdisciplinarity. In L. Apostel (Ed.), *Interdisciplinarity: Problems of Teaching and Research in Universities*. Paris: Organization for Economic Cooperation and Development
- Klausen, S. H. (Ed.) (2011). *På tværs af fag: fagligt samspil i undervisning, forskning og teamarbejde*. Copenhagen: Akademisk
- Klausen, S. H. (2014). Transfer and Cohesion in Interdisciplinary Education. *Norddidactica* (1), 1–20

Lattuca, L. R. (2001). *Creating Interdisciplinarity*. Nashville: Vanderbilt University Press

Olovsson, T. G. & Näsström, G. (2018). Ämnesövergripande undervisning och betyg i årskurs 4–6 i svensk grundskola i SO- och NO-ämnena. *Nordidactica* (2) 88–117.

Ongstad, S. (2012). Komparativ fagdidaktikk? Eksempler, hypoteser og forutsetninger. In E. Krogh & F. V. Nielsen (Eds), *Sammenlignende fagdidaktik 2*. Copenhagen: Aarhus University [skriftserie *Cursiv* nr 9]

Osbeck, C. (2017). Examples of Knowledge Contribution in Swedish RE – A Discussion of Disciplines as Frames for Knowledge Re/Production. *Nordidactica* (1), 66–86.

Nielsen, F. V. (2012). Fagdidaktik som integrativt relationsfelt. In E. Krogh & F. V. Nielsen (Eds), *Sammenlignende fagdidaktik 2*. Copenhagen: Aarhus University [skriftserie *Cursiv* nr 9]

Nilsson, M. (2009). Geografilärare. In B. Schüllerqvist, & C. Osbeck (Eds), *Ämnesdidaktiska insikter och strategier. Berättelser från gymnasielärare i samhällskunskap, geografi, historia och religionskunskap*. Karlstad: Karlstad University Press

Nygren, T. (2009). Historielärare. In B. Schüllerqvist, & C. Osbeck (Eds), *Ämnesdidaktiska insikter och strategier. Berättelser från gymnasielärare i samhällskunskap, geografi, historia och religionskunskap*. Karlstad: Karlstad University Press

Samuelsson, J. (2014). Ämnesintegrering och ämnesspecialisering: SO-undervisningen i Sverige 1980–2014. *Nordidactica* (1), 85–118.

Sandahl, J. (2014). Samhällskunskap och historia i svensk gymnasieskola. Ämnenas roll och relation i diskurs och ämnesplaner. *Nordidactica* (1), 53–84

Sandahl, J. (2018). Vart bör samhällskunskapsdidaktiken gå? Om ett splittrat forskningsfält och vägar framåt. *Nordidactica* (3), 44–64.

Sander, Å & Andersson, D. (2015). Religion och religiositet i en pluralistisk och föränderlig värld. In Å. Sander & D. Andersson (Eds), *Det mångreligiösa Sverige – Ett landskap i förändring*. Lund: Studentlitteratur

Sandström, U. (2003). Tvärvetenskap med förhinder. In L. J. Lundgren (Ed.), *Vägar till kunskap. Några aspekter på humanvetenskaplig och annan miljöforskning*. Stehag: Symposion

Schüllerqvist, B. (2012). De samhällsvetenskapliga ämnenas didaktik – En skandinavisk översikt. In N. Gericke & B. Schüllerqvist (Eds), *Ämnesdidaktisk komparation. Länder, ämnen, teorier, metoder, frågor och resultat*. Karlstad: Karlstad University Press

Schüllerqvist, B. & Osbeck, C. (2009). *Ämnesdidaktiska insikter och strategier. Berättelser från gymnasielärare i samhällskunskap, geografi, historia och religionskunskap*. Karlstad: Karlstad University Press

Skeie, G. (2018). Forskningen om interkulturell religionspedagogik. In O. Frank & P. Thalén (Eds), *Interkulturell religionsdidaktik – Utmaningar och möjligheter*. Lund: Studentlitteratur.

Sunnemark, F. & Åberg, M. (Eds) (2004). *Tvärvetenskap – Fält, perspektiv eller metod*. Lund: Studentlitteratur

Thompson Klein, J. (2017). Typologies of Interdisciplinarity: The Boundary Work of Definition. In R. Frodeman (ed.), *The Oxford Handbook of Interdisciplinarity*. Oxford: Oxford University Press

Turner, S. (2000). What Are Disciplines? And How Is Interdisciplinarity Different? In P. Weingart, & N. Stehr (Eds), *Practising Interdisciplinarity*. Toronto: University of Toronto Press

Weingart, P. (2000). Interdisciplinarity: The Paradoxical Discourse. In P. Weingart, & N. Stehr (Eds), *Practising Interdisciplinarity*. Toronto: University of Toronto Press

Weingart, P. & Stehr, N. (Eds) (2000). *Practising Interdisciplinarity*. Toronto: University of Toronto Press