

Project work, independence and critical thinking

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Abstract

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This thesis studies how students do projects in a Swedish upper secondary school. The students have to produce products and at the same time prove them self as independent in relation to the teachers, and negotiate the requirements of the project setting and the written instructions within the group. The study focuses on what comes out as problematic for the students, how they solve these dilemma situations and what resources are used in order to do so.

A choice was made only to analyse student group interaction in parts of the project process where the teachers were not physically present thus filling a research gap.

The empirical material was collected during three years in six secondary school classes through filmed sessions of groups or pairs working with their project.

Each of the four articles primarily focuses a special dilemma; structure, independence, instructions and critical thinking. By combining Goffman's frame analysis with the concepts of risk and uncertainty from a Risk – society perspective, issues related to what it means to do project work as independent, critical 21st-century learner are illustrated and discussed.

The choice to look only at situations in which students have to manage without the aid of a physically present teacher illuminates several practical consequences like an unwillingness to go to the teacher and ask questions and an increased concentration on and interpretation of the written instructions. A development of Miller and Parlett's (1974) discussion of student approach to cues are suggested. The concept of the cue choosing student are constructed in order to better respond to demands from an individualised interaction

society. The study also emphasises how the students have to balance different frameworks in order to be both authors and assessed students. By implementing a risk society perspective new ways of analysing and understanding independence and classroom interaction is suggested and a recontextualization of critical thinking proposed.

Contents

INTRODUCTION	11
Aim	12
Outline of the thesis.....	13
PROJECT WORK IN THE 21 ST CENTURY.....	15
Discourses on project work.....	16
The project work course and its context.....	17
Project work in the Swedish context.....	19
Project work, individualization, and 21 st -century learning skills	20
Working independently in graded assignments	22
Critical thinking and independent work	23
Project work and self-regulated learning	25
THEORETICAL PERSPECTIVES	27
Student framing and the project work course	29
Students at risk.....	32
Sociocultural approaches to risk	34
Decision making, risk, and individualization	35
RESEARCH METHODS AND CONTEXT	39
Sequential art, transcripts, and representations	41
Methodological discussion.....	45
SUMMARY OF STUDIES.....	49
Study 1: Unstructured information as a socio-technical dilemma	51
Study 2: So I sat down with my mother: Connectedness orientation and pupils' independence.....	53
Study 3: Instructions, independence, and uncertainty: Student framing in self-regulated project work	55
Study 4: A long and winding path: Requirements for critical thinking in project work	57

DISCUSSION AND CONCLUDING REMARKS	59
Combining framing and a risk society perspective	59
Contextualizing the absent teacher.....	63
Projects and the production of uncertainty.....	64
Two dominant frames	66
The student/grade frame	67
The author frame.....	68
Working within the frames	69
Roads and risks	70
The cue-choosing student and 21 st -century competences	71
Reducing complexity by managing risk.....	72
Frames, risk, and perspectives on critical thinking	75
Reframing critical thinking.....	76
Uncertainty, risk, and trust: from individualization to individualized risk .	77
Project work and risk society.....	78
On quality and value	80
Having learned something on examining project work	83
The results	84
SUMMARY IN SWEDISH.....	87
Projektarbete, självständighet och kritiskt tänkande.....	87
Avhandlingens syfte.....	88
Projektarbete i det 21a århundradet	88
Den svenska kontexten	89
Självständighet, bedömning och kritiskt tänkande.....	91
Teoretiskt ramverk	92
Mina resultat.....	94
Att gå vidare	97
REFERENCES	99
PART 2	115
Study 1:.....	115
Study 2:.....	115
Study 3:.....	115
Study 4:.....	115

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PROJECT WORK, INDEPENDENCE AND CRITICAL THINKING

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Malmö den 29/4 2014

Part 1

Introduction

This thesis is about how students conduct project work. “Doing a project” today means being connected to and supplemented by human and technical resources that transcend those of the traditional classroom. The investigation was carried out in an upper secondary mandatory project work course. By focusing on how students work when their teachers are physically absent, issues related to what it means to do project work as an independent, critical 21st-century learner will be illustrated and discussed.

School project work has become part of the political and media discourse concerning the Swedish educational system. The debate concerns the standing of project work in Swedish education: those who defend project work argue that working on projects is an important 21st-century competence, while those who are critical cite project work as an explanation for the alleged deterioration of Swedish schooling in international rankings. Politicians have asserted that the decrease in more traditional work forms (e.g., *katlederundervisning*) is one explanation for the “decline of Swedish schooling.” Project work has become a battlefield for a “back to the basics” or “turn school in the right direction” discourse.

Although I dissociate myself from this kind of “blame game,” I do argue in this thesis that project work increases students’ uncertainty. It forces them to deal with several kinds of dilemmas, and to make a multitude of decisions with little tutor or teacher assistance. Students have to do this jointly with other students in an open environment in which all the resources and networks available through physical or digital encounters can be used.

This text is about student framing and sense-making during what the course plan describes as self-regulated project work. The setting was arranged so that the empirical material was collected when the students worked in groups in the physical absence of teachers. Large parts of project work take place when teachers are not present. The emphasis on the teachers’ role in

project work extends far back in history. One of Dewey's criticisms of Kilpatrick (1918) was that, for him, the project was not an enterprise for the student but for the teacher and student together (Knoll, 1997). The present study marginalizes the teachers, in a way, as I have chosen to analyse only interactions in which they are not physically present. From another point of view, teachers are very much present, for example, in the form of various available tools, such as instructions. Since most research into project work concentrates on either student–teacher interaction or the learning outcome of the project, this study helps fill a research gap.

My special interest concerns ways of organizing and understanding what to do and how to do it in a project, viewed from the student perspective. The study is not about the pros and cons of project work, nor primarily about the learning outcomes related to project content or subject. Others, such as Säljö, Jakobsson, Lilja, Mäkitalo, and Åberg (2011), Lilja (2012), and Lundh (2011), have made substantial contributions from such a perspective.

Project work is a complex research area. The four articles together with the present summarizing text constituting this thesis can be seen as a single study based on four cases. By abstaining from grand judgments of a complex work mode, and instead focusing on some of the special problems and dilemmas that students must overcome to function in such a special setting, I aim to enrich the current discussion of project work in educational settings.

Aim

This thesis examines how students discuss and behave in a project work setting. The analysis aims to build an understanding of considerations regarded as important by the students when dealing with various dilemmas encountered during self-regulated project work. The focus and the unit of analysis are the interaction and actions occurring during such work. Of special interest is how the students frame the various dilemmas encountered and what influences this framing.

Three levels of questions have been used in attempting to understand project work and its related interactions as phenomena. The first level, deduced from students' interactions and actions, deals with how students resolve various problematic situations encountered when working in a project setting, and what resources are used in doing so. I define situations as “problematic” when they require that students argue for and against various

actions. I have chosen to call such situations dilemmas. Each of the four articles deals primarily with one type of dilemma, forming four cases. The second level deals with how the special demands imposed on the students by the work mode, such as being independent, self-regulated, and critical, influence their problem solving and resource choices. Finally, the third level concentrates on uncertainty and risk and the usability of such concepts when discussing framing and decision making.

Outline of the thesis

The second chapter discusses the project form in relation to ideas about societal change, connected with views of 21st-century knowledge society and the special competences claimed to be necessary in such a society. The concepts of modernity, individualization, and risk are introduced and discussed in relation to project work.

The third chapter introduces the theoretical perspectives used in this thesis. The insecurity of the students is identified as a driving force that must be taken into account when analysing and understanding student interactions in the project setting.

Two complementary theoretical approaches are described: *frame analysis*, which makes it possible to analyse the students' view of "what's going on," and the *risk society perspective*.

The fourth chapter presents the research context and methodological considerations and describes how the empirical material was collected and used. The chapter also clarifies and advocates the use of sequential art as a useful form of representation in research.

The fifth chapter summarizes the four articles on which this compilation thesis is based. Instead of ordinary comprehensive summaries, the present summaries consist of brief overviews concentrating on the issues to be clarified and developed in the discussion section.

The sixth chapter mirrors the second chapter, starting with the various student interactions and frameworks discussed and then adding risk as an explanatory factor. My use of the concept of risk is discussed. I also trace the development of my analytical tools in the form of two frames, six approaches to the work, and a matrix of positions in relation to focus and time, describing and discussing these tools in relation to their applicability in analysing student

PROJECT WORK, INDEPENDENCE AND CRITICAL THINKING

interaction in groups. Finally, some limitations of my method are discussed. The final chapter is followed by a Swedish summary.

Part two of the thesis comprises the following four articles:

Nilsson, L.-E., Eklöf, A., & Ottosson, T. (2008). Unstructured information as a socio-technical dilemma. In Hansson, T. (Ed.), *Handbook of research on digital information technologies: Innovations, methods and ethical issues* (pp. 482–506). Hershey, PA: Information Science Reference.

Eklöf, A., Nilsson, L.-E., & Svensson, P. (2009). So I sat down with my mother: Connectedness orientation and pupils' independence. In Tatnall, A. & Jones, A. (Eds.), *Education and technology for a better world*, proceedings 9th IFIP TC 3 World conference. Bento Goncalves, Brasil Springer.

Eklöf, A., Nilsson, L.-E., & Ottosson, T. (2013). Instructions, independence, and uncertainty: Student framing in self-regulated project work. Accepted for publication in *European Educational Research Journal*.

Eklöf, A. (2013). A long and winding path: Requirements for critical thinking in project work. *Learning, Culture and Social Interaction*, 2(2), 61–74.

Project work in the 21st century

For any student who started upper secondary education between 2000 and 2010 (and finished no later than spring 2013), the course PA 1201: Project Work has been compulsory. It differs from other upper secondary courses by its particular emphasis on training students to plan, organize, and take responsibility for conducting a project over a long period (Skolverket, 2001). It also offers an opportunity for students to immerse themselves in a specific subject area. Formal lessons and seminars are few and to some extent replaced by tutoring sessions. Student work during this course aims at producing an end product that can take the form of a concrete object, such as a work of art, dance performance, or movie, or something abstract and theoretical in which a question is formulated and answered in the form of an essay or multimedia product. When assessing the course work, the process and final product should be regarded as equally important (Skolverket, 2001). In both mandatory and elective upper secondary schooling, autonomy, responsibility, and self-control are upheld as important qualities (LPF94, 2006; LPO94, 2006; SFS, 1993; Skolverket, 2011a, 2013), and in the studied course students are to be assessed and graded according to skills related to them (Skolverket, 2000). This raises serious questions for both teachers and students. How do students demonstrate that they have taken initiatives and worked independently? What does it mean to work independently, and how can independence be assessed? In this context, being knowledgeable has a distinctive meaning. Lave and Wenger (1991) describe how “being knowledgeable” in a group is negotiated and developed through the progressive embracing of common goals and common problem descriptions and the development of a common language.

Students involved in project work are supposed to handle choices and independently take responsibility for project planning and performance. “Own work”¹ and project work, as a special form, are often contrasted with traditional forms of schoolwork that are more planned and monitored by teachers. Student interaction can accordingly be analysed and understood as part of a collaborative effort in which students use multiple resources, including teachers and fellow students. The complexity of the work form

¹ In the Swedish context, “own work” is a special mode of self-directed individual work developed in the 1980s to solve problems encountered in the traditional class teaching model. It was a way to individualize teaching and find ways to make students work on their own and be responsible for carrying through their own work (Carlgen, 2006).

brings about an increased number of dilemmas that the students have to resolve.

Discourses on project work

Project work as a teaching/working method has a long history and, according to Knoll (1997), was first used in connection with Italian architectural education in the late 16th century. The intention was that students should end their education by undertaking realistic work, so they could discover what working as a professional meant. Originally connected with higher education, project work required that students should demonstrate that they had acquired the necessary skills for professional life.

A second and different way of considering project work in educational settings is connected with the American progressive education movement. Both Dewey (1916) and, in particular, his colleague Kilpatrick (1918) are often associated with this form of work. Project work is seen as a part of the student's education that precedes formal instruction and tutoring. Pedagogy should be anchored in real activities with goals formulated by the students and should allow students to apply practices in line with formulated objectives.

A third discourse emphasizes the project work form as belonging to modern working life and as promoting the development of the skills necessary in a modern knowledge society. Project work, seen from this perspective, satisfies labour market demands and is a way of creating skills needed for the 21st century. Based on this perspective, a number of authors have asked how students benefit from this form of work (Aili, 2007; Alexandersson, 2011; Dovemark, 2004; Martinez-Pons, 2002; Vassallo, 2012; Österlind & Sörling, 2006).

Since the constituent articles of this thesis focus on different types of dilemmas, the relevant background research literature is large and diversified. It is accordingly impossible to give in-depth accounts of all relevant research traditions. I will concentrate on some of the traditions that are important for my overall understanding and for the development of my theoretical apparatus.

The project work course and its context

In Swedish upper secondary school, there has been a major shift toward choice and individualization. The large-scale opening for non-municipal upper secondary schools has resulted in an increase of over 30% in the number of such schools since the beginning of the 21st century; at the same time, there has been nearly no expansion of municipal upper secondary schools (Alexandersson, 2011). Schools are becoming more competitive market players (Andersson, 2010), and persuading potential students to choose one's school is becoming a key task of school management.

Individualization in the Swedish educational system is discussed by, for example, Granström (2003), who demonstrates that the use of individual-based teaching methods has increased rapidly since the 1960s, concurrent with a decline in whole-class teaching. Carlgren, Klette, Mýrdal, Schnack, and Simola (2006), Carlgren and Marton (2000), Eriksson (2009), and Vinterek (2006) have all tried to relate this striving for more individual work to the potential challenges this entails for education. Carlgren et al. (2006) speak of a “neo-liberal individuality where the meaning of individualization is framed by an idea of individual competition and choices in a ‘society for the individual’” (p. 319), and Eriksson (2009) claims that comprehensiveness and equity are threatened by radical individualization. Biesta (2006) discusses this development as a problem for democracy and concludes that, from the perspective of a learning economy, “lifelong learning itself has become understood as an individual task rather than as a collective project and that this has transformed lifelong learning from a right to a duty” (p. 196). Even though project coursework is often performed in groups, I choose to regard their development as part of this individualization trend.

The Upper Secondary School Committee (Gymnasiekommittén) (SOU1997:107), established in 1997 to review and renew the upper secondary school program, suggested implementing project work representing a professional task in order to obtain more professionalized upper secondary schooling. The result of this recommendation was the establishment of the course PA 1201 (Skolverket, 2000) in 2000. The next developmental step came in Government Bill 2003/04:140 (Sverige Regeringen, 2004), which proposed that a general upper secondary school examination should be reinstated and that a new diploma project called *Gymnasiearbete* should replace PA 1201, the old project work course. A new course in two forms was

PROJECT WORK, INDEPENDENCE AND CRITICAL THINKING

introduced, serving as both a college preparatory course and a sign of professional competence. The new project was to be assessed using only a two-grade scale—i.e., pass or fail (E or F) instead of the ordinary six-grade scale. A passing diploma project should, according to the bill, be a prerequisite for passing the upper secondary school exam (Gymnasieexamen).

This bill and the related change process were discontinued with the change of government in 2006. The report produced by the government commission (SOU2008:27, 2008) also advocated an examined diploma project. The new government enacted a new bill “Higher standards and quality in the new upper secondary school” (Sverige Regeringen, 2009). The general information on the new diploma project (Skolverket, 2012) describes its goals:

Students must be able to take initiatives in and responsibility for planning and implementation, and this means that a diploma project requires a large measure of independence, at the same time as the work must take place in dialogue with the teacher responsible. (p. 45)

A major change is that the new diploma project is tightly integrated with the various school courses and has different aims if it is part of a program preparing students for work, vocational training, or further studies. Linking the Gymnasiearbete to the specific objectives of the different upper secondary school programs emphasizes the holistic view of these programs, in which all constituent courses should serve to develop the special skills for which the program is designed. The intention is not for the Gymnasiearbete to serve as a kind of final exam, as in some European countries. There is no specific syllabus for the new diploma project and the goals it should achieve. For the twelve vocational programs the goals are the same, and “the diploma project should demonstrate that students are prepared for the vocational area applicable to their chosen vocational outcome” (Skolverket, 2012, p. 42). For the diploma project in the higher education preparatory programs, the goals differ between the six programs but all emphasize that the students should demonstrate that they are “prepared for higher education studies, in the first instance in the area for which the education is being provided” (p. 44).

In the course studied here, independence, initiative, ingenuity, and imagination are concepts included in the grading criteria.

The three discourses described above, concerning final examinations, educational form, and work life preparation, can all be found in the report and directives preceding the implementation of project work as a compulsory

course in upper secondary schools. The first discourse has been strengthened in the latest reform of secondary schooling (Skolverket, 2012). At the same time, the “labour market discourse” is strongly emphasized.

Project work in the Swedish context

In Sweden, efforts have been made to investigate the concept of “own work” (*eget arbete*), and recent years have seen increasing interest in independent work in the form of projects as a coherent pedagogical technique.

Nilsson (2002, 2004) discusses student “research” in secondary school, which Swedish discourse often calls simply *forskning* (research) or *eleverforskning* (student research). His main interest is the outcome of the process in the form of texts, but he also identifies several ways of understanding the process. Nilsson uses some theoretically important concepts. From a dialogic perspective, he anchors different linguistic observations in a specific context and uses speech acts and action types to develop an understanding of the research process. He demonstrates how this can be related to the concept of genre (Bakhtin, 1981; Swales, 2004) and Goffman’s (1981) concept of footing.

Nilsson (2002, 2004) concludes that the increase in student research can be seen as an answer to the heterogeneity of contemporary schooling and to the need to individualize education. He problematizes the fact that student research usually leads to a quiet rather than to a dialogical classroom, and emphasizes that teachers and students do not share the same goals when it comes to student research.

Österlind argues, invoking Bourdieu’s concept of habitus (Österlind, 1998, 2005, 2010; Österlind & Sörling, 2006), that students’ own work is a mode of work that affords freedom for those with an upbringing that fits such a value system but that increases pressure and anxiety for others (1998, p. 99). Österlind emphasizes the collective nature of own work and helps expose the connection between independent work and pressure, danger, and uncertainty. The studies of Dovemark (2004) and Beach and Dovemark (2009) emphasize that the transformation of traditional school practices into more individualized forms ought to be seen as part of a larger societal transformation and that this transformation offers very different affordances to students according to their origin and habitus. Söderström (2006) argues that when students take responsibility for their work, they use the demands of late-modern society as a lens. She describes the drive for individuality as

expressing the ideology of the dominant class and emphasizes that the concept of “taking responsibility” becomes a governing strategy in school that disengages itself from traditional forms of governance. She concludes that, even though the modes of self-regulation create opportunity for change, the traditional views of school norms, content, and power structure are deeply rooted in students and teachers. All these studies indicate a need to contextualize project work on a societal level as well, something done here by discussing the empirical findings in light of a risk society perspective as well.

The concept of project work has attracted increasing interest, resulting in several articles and theses in recent years. This body of research examines collaborative student projects using ICT (Lindberg & Sahlin, 2011; Pedersen, 2004; Rasmussen, 2005), vocational projects (Thunqvist & Axelsson, 2012), as well as more traditionally organized project courses and projects (Boström, 2011; Lilja, 2012; Lundh, 2011). Lilja (2012) studied project work involving teacher–student collaboration, drawing on Dewey’s original critique of Kilpatrick (1918) to emphasize that the idea is not that the teacher should take a withdrawn position. The same emphasis on the need for teacher–student collaboration can also be found in Lundh’s (2011) and Boström’s (2011) work, making the present study, concentrating on parts of the project in which teacher–student collaboration is minimized, a contribution that fills a research gap.

Project work, individualization, and 21st-century learning skills

The skills and competences connected with project work are often the same as those used in descriptions of the late-modern digital information society. Project work can therefore also be discussed in light of late-modern society, and an emphasis on individuality, individual solutions, and personal responsibility for choices made is a common denominator.

Some trends in Swedish education then become important background matters when analysing how students manage their projects. In the present text, individualization is an especially important concept, since it is strongly connected both to the discourse of project work (including self-regulated work and own work) and to the discourse of risk and the risk society. Individualization helps align the individual project with a changing society and

changing forms of governance constituting one step in shifting people's actions from external to internal regulation.

The labour market discourse, strongly evident in the course plan examined here and even more emphasized in the replacement course plan, is often connected with 21st-century competences. The OECD and the American organization, Partnership for 21st Century Skills (Ananiadou & Claro, 2009; Partnership for 21st Century Skills, 2009a, b), have tried to develop descriptions of these competences. Common features of these descriptions are the abilities to think creatively in various ways, solve problems, reason effectively, communicate and collaborate with others, and assume responsibility for collective work. The same descriptors are often used in connection with project work. The students studied here are expected to develop such skills, preparing themselves for the 21st-century labour market.

Another theme in 21st-century forecasts, and in texts on late modernity (e.g., Bauman, 1993, 2000, 2001; Giddens, 1990), concerns individualization and personal responsibility. Signs of increased individualization are easily found in the ongoing reform of various programs in upper secondary school. The new upper secondary reform comprises a new school law, new curriculum, new organization, and new assessment goals (SFS, 2010c; SKOLFS, 2010a, b; Skolverket, 2011b).

The reform signals a radical shift from previous policies by strongly separating academic and vocational programs. The former objective of preparing all upper secondary school students for post-secondary studies is less emphasized now. Vocational programs will now more directly cater to the specific needs of companies—but not necessarily to the labour market's need for knowledge and competence from a longer-term perspective (Eklöf, 2010; Lundahl, Arreman, Lundström, & Rönnberg, 2010). Both the requirement that the student choose a school and the future impact of the choice of program put increased pressure on students² to make decisions that may have important future effects. The trend toward self-governance has also been discussed in terms of class and socioeconomic status, in which the new system potentially benefits successful students (Beach & Dovemark, 2009) and

² When speaking of compulsory schooling (years 1–9), the term “pupil” (Swedish *elev*) is used in Sweden. When speaking of university or schooling after the upper secondary level the term “student” (Swedish *student*) is used. When speaking of upper secondary schooling, both terms are used alternately. In some of the articles, the choice was made to use the term “pupil” since the forms and structure of the education are more similar to lower secondary than to university studies. In the compilation part of the thesis, the term “student” is consistently chosen.

students from middle/high-income or highly educated groups and increases the bias in recruitment to higher studies (Alexandersson, 2011). As Beach and Dovemark (2009) put it:

But they are also “natural pivots” of the neo-liberal life style, life order and habitus of the business section of the middle- and upper-middle classes that Erlandson (2007) suggests are now being extensively mediated in the governmentality of current education situations. (p. 695)

I acknowledge these class and habitus perspectives as potentially important, and at the end of my thesis I identify the need for further studies incorporating such perspectives. In the current research I have chosen not to apply such perspectives, as doing so would require a type of background material that I did not collect for this study. The similarities between descriptions of 21st-century competences and project work and the fact that Swedish schooling has become more individualized are widely recognized. What this study attempts is to discuss how students handle individualization and independence and what resources they can use for this purpose.

Working independently in graded assignments

The term “independent work” (*eget arbete* or *enskilt arbete*) is used to categorize modes of work that are increasing on all levels of the Swedish educational system. From a student perspective, it can be difficult to predict how independent work that covers the whole process from planning to finishing a product with little direct teacher aid is assessed.

Becker, Geer, and Hughes (1995) argue that students use the “grade point average perspective” as a main criterion of academic success. They claim that evidence of success in studies is manifested primarily in grades, and that this understanding directs students more than anything else:

To be successful, a student should do whatever is necessary to get “good” grades, not expending effort on any other goal in the academic area until that has been achieved. (p. 34)

This thesis, which analyses project work in the context of an individualized risk society, identifies one of the most obvious risks students face as that of obtaining a failing grade. This risk is increasingly serious in a society in which upper secondary school examinations do not necessarily give access to a bright future, but in which the lack of such access effectively closes many of

the doors available (Alexandersson, 2011; Lindblad, 2005). In Goffman's terms, the grade point average perspective serves as a frame for determining what is relevant to academic success. Choosing the right approach to teachers and assessment plays an important role in engaging in the framing activities that ensure academic success (Miller & Parlett, 1974). Säljö et al. (2011) stress that students' understanding of the examination format affects their work long before the examination situation, and Lilja (2012) concludes that "the role of documentation and examination may be an underexplored topic in the literature on project work and progressivism in a wider sense" (p. 34). Concerns about grades and risk-reduction strategies are accordingly important topics of this thesis.

Critical thinking and independent work

Another capacity often described as necessary in project work is that of critical thinking. Critical thinking is a broad concept and research into it covers numerous aspects, such as the practice, idea, philosophical roots, and constituent parts of critical thinking (e.g., Atkinson, 1997; Biesta & Stams, 2001; Brodin, 2007; Cosgrove, 2011; Davies, 2011; Ennis, 1962, 1985; Gibson, 1995; Golding, 2011). In her review of the critical thinking literature, Lai (2011) focuses on areas of agreement between researchers.

A common approach is to divide critical thinking into abilities, such as the ability to analyse arguments, and dispositions such as open-mindedness. Critical thinking was divided into abilities and dispositions by Ennis (1985) in elaborating on earlier sets of criteria (Ennis, 1962). In his 1985 elaboration, Ennis defines critical thinking as "reflective and reasonable thinking that is focused on deciding what to believe or not" (p. 45). He asserts that critical thinking is a practical activity, because deciding what to believe is a practical activity. This thesis uses a slightly modified form of Ennis's definition as a reference point when searching for manifestations of critical thinking in student interactions. A modified Ennis definition is used because critiques discussing a lack of critical thinking among students often refer to such definitions. This is discussed primarily in the fourth article of this thesis, in which I criticize such definitions as too limited, because they do not take account of the special context of being an assessed student. To contextualize critical thinking, I have instead chosen to consider modes of critical thinking that highlight the limitations of the classical definitions. These limitations are

PROJECT WORK, INDEPENDENCE AND CRITICAL THINKING

evident in both philosophical discussion of the concept as such and in more didactically inspired texts. Biesta and Stams (2001) criticize both what they call “critical dogmatism,” a view that defines being critical as “to think of critique as the application of a criterion in order to evaluate a specific state of affairs” (p. 60), and transcendental critique “aimed at spotting performative contradictions” (p. 64).

The dogmatic aspect of the first concept is that the criterion itself is not incorporated into the conduct of critique. Transcendental critique is defined as an internal critique in which arguments confront each other “to reveal whether such a position or argument is rational or not” (p. 65). Both these forms of critical thinking are closely linked to the process occurring between the critical thinker and the material being critically assessed. This is a connection I try to broaden by taking account of the context of the writing situation.

A similar line of reasoning can be found in Brodin (2007), who distinguishes between absolutist and relativist views of critical thinking. An absolutist sees critical thinking as a rational skill governed by general principles. The absolutist view implies that critical thinking can be taught and learned by following certain procedures. The relativist view, on the other hand, holds that critical thinking is context dependent and, hence, cannot be taught independently of the current context (p. 18). The context, in this view, is limited to the context of the subject. The contradiction between critical thinking as a general ability or as a subject-specific ability has been one of many battlegrounds in the discussion of critical thinking, for example, in the debate between Ennis (1989, 1990) and McPeck (1990). The empirical analysis presented in this thesis applies a nondogmatic relativist approach to critical thinking: It is argued that the debate concerning general ability versus subject specificity omits important views of critical thinking in educational settings. In my view, the discussion would benefit from incorporating both the explicit incentives to be critical and the structural limitations that affect critical thinking in educational settings.

Paul and Elder (2001a, b) distinguish between critical thinking in a weak and a strong sense. Weak critical thinking is connected with self-centeredness and is described as a sophistic way of using micro-skills such as argument analysis, synthesis, and evaluation to win arguments. It involves a lack of ability to be critical of one’s own beliefs and considerations, and is therefore egocentric. Strong critical thinking, on the other hand, is described as a

“disciplined, fair-minded, multilogical perspective on an issue or problem so that the reasoner is not trapped by egocentricity or self-deception” (p. 5).

Another crucial point is whether critical thinking can be seen as a purely individual competence. Atkinson (1997) discusses this and writes:

The very concept of “critical” presupposes that individual conflict and dissensus are a social reality, if not a tool for achieving socially desirable ends, while “thinking”—at least in a Western context—assumes the locus of thought to be within the individual. (p. 80)

In the present study, the studied interaction is encountered in group activities. Building on the concept of communities of practice (Lave & Wenger, 1991; Wenger, 1998, 2003; Wenger, McDermott, & Snyder, 2002), I have chosen to treat critical thinking and other concepts, such as independence and self-regulation, as situated in a group context. The students analysed are to function in a somewhat schizophrenic situation: They are supposed to be individualized and personally responsible, graded as individuals, while part of a working group. This is the context and part of the background that, taken into account, can help us advance our knowledge of project work.

Project work and self-regulated learning

The point of departure, that is, 21st-century competences, must briefly be related to the concept of self-regulated learning (SRL). Wolters (2010) concludes that the similarities between descriptions of SRL and of 21st-century competences are striking: “The level of conceptual similarity makes some of the core competencies appear nearly synonymous with dimensions of SRL” (p. 18).

Self-regulated learning is a large and well-discussed field that I will not consider here. Though much research into SRL is cognitively oriented and falls outside my primary interest, I nevertheless use the related terms “self-regulation” and “self-governance” in some cases. Research into SRL often emphasizes the need for teachers to be aware of students’ prior knowledge in several dimensions in order to orchestrate a functional context for SRL (Boekaerts, 1997).

Eriksson (2009) describes SRL as a joint venture in which responsibility for the task is divided. The overall responsibility belongs to the teacher in terms of decisions concerning what aspects to delegate and to whom. Students, on the other hand, are responsible for fulfilling various assignments,

PROJECT WORK, INDEPENDENCE AND CRITICAL THINKING

including planning both their daily work and personal long-term educational trajectory (p. 65).

Teachers were marginalized in this research since I chose to analyse only interactions in which they were not physically present. Despite their physical absence, they were present as third persons in the form of various available tools, such as instructions. Difficulties connected with constructing and following instructions are discussed by, for example, Amerine and Bilmes (1988), Clark (2009), Gibson (1995), and Ekström, Lindwall, and Säljö (2009), while the role of instructions in self-regulated work has been discussed by, for example, Brown (2008) and Eriksson (2009), and is developed in the third constituent article of this thesis.

The situation of the (physically) absent teacher could be regarded as anti-thetical to the proximal development zone (Vygotskij & Kozulin, 1986). Furberg and Ludvigsen (2008) further emphasized the need for a close and engaged teacher; drawing on Jimenez-Aleixandre, Rodriguez, and Duschl (2000), they discussed the difference between “doing science” and “doing school,” closing in on student framings and understandings of the diversity of their project work and emphasizing the need for

teacher intervention with a focus on the students’ argumentation and meaning-making of knowledge domains, and also on how to deal with the institutional values, demands, and expectations. (p. 1795)

Though I fully agree with the conclusions reached and, in my articles, identify the problems caused by physically absent teachers, my point of departure is not normative in that sense. The outcome in terms of learning is not a primary lens in my studies, although I can assume that difficulties encountered in overcoming dilemmas, or in decisions made primarily to reduce complexity and risk, also influence the potential learning outcome.

I conclude that the physical absence of teachers during most of the project work means that students must handle emerging dilemmas by themselves. In choosing to concentrate exclusively on those parts of the project from which the teacher is physically absent, I can isolate and discuss aspects of the process that are not thoroughly scrutinized

Theoretical perspectives

Doing project work largely concerns sense-making; from this vantage point, various aspects of project work have been focused on, such as the impact on the produced texts (Nilsson, 2002) or the special challenges of dealing with socio-scientific topics (Säljö et al., 2011). Project work has also been treated from several theoretical perspectives, such as a combination of phenomenography and habitus theory (Österlind, 1998, 2005, 2008, 2010; Österlind & Sörling, 2006), the communicative ecology of negotiation (Lilja, 2012), language games and discursive puzzles (Boström, 2011), and information needs, seeking, and use (Lundh, 2011). Lundh (2011), like me, uses concepts from dialogical theory and concludes that

information activities in relation to project-based teaching and learning methods are characterised by conflicting demands, which stem from a collision between different schooling traditions. (p. 56)

Most of the research cited above concentrates on both student–student and student–teacher interactions. Even though the teachers are not actually present in the situations analysed in this thesis, they are still an important part of the project work; a stance I find useful is to regard the teacher as a third party in the interaction (Linell, 2009, p. 99).

Studying the group process of doing project work implies having to work with concepts such as information, literacy, independence, instructions, and critical thinking. All these concepts are usually discussed from an individual perspective and treated as individual (i.e., internal) abilities. A stance applied throughout the constituent articles of this thesis is that such phenomena are collectively routed and only understandable as collective phenomena. To accomplish this, group interaction is discussed in terms of epistemic communities defined as “communities that through ongoing and situated interaction provide their members with background and approaches for seeking, analysing, using, and evaluating knowledge” (Tuominen, Savolainen, & Talja, 2005, p. 339). A similar concept is communities of practice seen as sites where people develop learning, acquire insights, and develop and negotiate meanings, values, and objectives (Wenger, 1998). Both concepts

PROJECT WORK, INDEPENDENCE AND CRITICAL THINKING

have been taken out of their original contexts and transferred to an educational one.

Despite the fact that this shift of context robs both epistemic communities and communities of practice of certain dimensions, the concepts help me emphasize the social and collective nature of the learning and interaction processes examined in the four appended articles. In this vein, Tuominen et al. (2005) indicate the importance of the

social, ideological, and physical contexts and environments in which information and technical artifacts are used. Such studies would first seek to form a grassroots-level understanding of epistemic communities and work practices and base the attempts to support information-seeking and knowledge-sharing processes upon those understandings. (p. 340)

Similarly, the term “double dialogicality” serves as an entry point for understanding the dilemmas encountered in the empirical material. Interaction constitutes not only interaction between participants but also interaction within a particular understood, negotiated, and internalized social construct that greatly affects the framing. As double dialogicality concerns both situations and traditions, participants can be seen as engaging in both situated interaction and sociocultural praxis (Linell, 2009). Double dialogicality reflects the various levels of the described aims in which dilemmas (i.e., problematic situations) are analysed in light of the specificity of the work mode and of a particular societal macro theory. What is discussed is a highly situated and contextualized interaction process, so the starting point of the research was a broad interest in human interaction based on a sociocultural perspective, as presented by Säljö (2000, 2005) and Wertsch (1991, 1998). Although taken in slightly different directions here, this is still a sound basis for forming a theoretical apparatus.

The sociocultural context that I claim influences the framing and decision making in project groups goes beyond the obvious, such as the special regulations and demands connected with the project as a graded assignment. This praxis also extends beyond school cultures and reaches out to society at large, encompassing demands from a global marketplace (article 1), demand for the implementation of technology (article 2), the Europeanization of curricula and course plans and special work forms compatible with 21st-century competences (article 3), and the demand for critical thinking as necessary for the postmodern information society (article 4). The studied project work is closely connected with and discussed in terms of societal competences. I claim that

the understanding of the situated interaction in the project groups, which constitutes the empirical data, can be enriched by combining micro-oriented interaction theories with broader sociological modernity theories, which is done by introducing sociocultural risk theory as one layer of the analysis.

Student framing and the project work course

Goffman (1974/1986) offers a productive way of analysing the interaction occurring within a project group. He starts with the conviction that all sense-making presupposes interpretation of the encountered situation, but adds that we seldom freely create these interpretations, but usually evaluate the situation and act in accordance with patterns we customarily use in similar situations:

True, we personally negotiate aspects of all the arrangements under which we live, but often once these are negotiated, we continue on mechanically as though the matter had always been settled. (Goffman, 1974/1986, p. 2)

Part of the analysis therefore entails finding the set of rules that governs how the students create meaning in the events they participate in and how these rules are connected to prior interpretations of similar situations. Goffman (1974/1986) claims that actions and utterances are not self-evident and cannot be understood outside their specific contexts; instead, they depend on the participants' own framings and how they understand what is said and done. From Goffman's perspective, framing in a group presupposes that all project group participants are working toward a similar way of defining the situation. This assumption is also a cornerstone of other dialogical theories, such as Wenger's concept of communities of practice (Lave & Wenger, 1991; Wenger, 1998, 2003; Wenger et al., 2002).

Annika Lantz-Andersson (2009) describes framing as follows: "The framing in an activity can be seen as the participants' mutual answer to the question 'what's going on here'" (p. 50). Lundström (2012) demonstrates that "place and mobility can attain different meanings in relation to these frames," making elements of conversation and artefacts things that can be oriented differently in relation to framing, while Goffman (1974/1986) himself claims:

Whatever the degree of organization, however, each primary framework allows its user to locate, perceive, identify and label a seemingly infinite number of concrete occurrences defined in its terms. He is likely to be unaware of such organized features as the framework has and unable to

PROJECT WORK, INDEPENDENCE AND CRITICAL THINKING

describe the framework with any completeness if asked, yet these handicaps are no bars to his easily and fully applying it. (p. 21)

A framework is often described as a kind of metaphorical container that encloses certain objects and excludes others. A framework confines certain aspects, connects them, and at the same time shuts out others, excluding them from consideration. This sense of “what’s going on” is based on past experiences and organized into patterns and schemata. Schemata are not to be regarded as fixed but as living and evolving:

People recognize new situations as being similar to previous, familiar, situations, and this recognition shapes their expectations, what they notice, what they consider, and what they intend. It is essential to recognize, as Bartlett (1932) emphasized, that these organizations of past experience are “active, developing patterns,” not rigid structures. Framing a new situation involves tapping into previous patterns and interacting with them; the patterns themselves shift to accommodate the new situation. (Berland & Hammer, 2011, p. 20)

Scherr and Hammer (2009) talk about framing in school settings as epistemological framing incorporating the information needed to complete the assignment and social framing constituting a “a sense of what ... [students] expect of each other, of their instructor, and of themselves” (p. 2). They demonstrate how the students’ behaviour and way of speaking interact with and can be used to identify the framing. The students’ way of cuing different frames recalls how I have tried to identify them, not only by seeking verbal cues, but also by considering intonation, bodily movements, and other signs of shared understanding.

Although my use of frames is close to Scherr and Hammer’s (2009) practical use of frames, I see no real need to make the special distinction they do since I believe that Goffman’s way of using frames includes all these cues, in line with how he regards human interaction in general.

When looking at the actions taken to proceed in the observed situations, examining the interaction preceding (and part of) the actions help me understand the actions taken. I have tried to identify elements of the group culture that can be used to describe what is happening. These elements are used as primary frameworks with strong explanatory power. Goffman (1974/1986) defines primary frameworks, as seen by those applying them, “as not depending on or harking back to some prior or ‘original’ interpretation” (p. 21). Social frameworks “provide background understanding for events that

THEORETICAL PERSPECTIVES

incorporate the will, aim and controlling effort of an intelligence, a live agent, the chief one being the human being” (p. 22).

In the studied setting, agency is always evident in the background. The physically absent teacher virtually present in the form of instructions and other reifications is always to be taken into account. Identifying the sets of rules governing how students perceive and create meaning constitutes an analytical approach rooted not in the students’ explicit talk, but in my interpretation of what most strongly influences the choice of action taken. The identification of various frameworks lets one examine specific actions, such as having to decide what sources to use for a project, and understand why particular choices are made.

The two major frames used in my analysis concern how to handle the content (i.e., the author frame), on one hand, and how to handle the situation of the assessed student (i.e., the student/grade frame), on the other hand. This division has been discussed before from a student–teacher perspective. For example, Furberg and Ludvigsen (2008) emphasize these dimensions by stressing the need for teachers to interact with students in terms of both content and the institutional requirements expressed. They also refer to several other studies that draw similar conclusions

... where the interaction between the teacher and the students is characterised by talk about the practical side of how to complete a task (Arnseth, 2004; Ludvigsen, in press; Mäkitalo et al., in press; Rasmussen, 2005). These studies also underpin the importance of teacher intervention with a focus on the students’ argumentation and meaning-making of knowledge domains, and also on how to deal with the institutional values, demands, and expectations. (p. 1795)

Another possible way of regarding these dimensions would have been to talk of a school frame with two keys, that is, an author key and an assignment key. This could have simplified the reasoning in one way, as it would have emphasized the twofold identity of the student as both creative learner and graded student, shifting constantly between these two positions, but it would have concealed the tension between these two identities, creating a false harmony. By choosing to talk about two different frames that can overlap or conflict with each other, that are simultaneously in play, and that students must balance, I am emphasizing the strength of the student grade/frame and the difficulty of this balancing act.

Students at risk

A claim made is that independent work increases the number of student decisions that influence the framing process. Rules and instructions must be interpreted, creating dilemmas in which the effects of various actions must be discussed. A consequence of increased decision-making demands is greater exposure to potential risks, which can appear in many forms. To complete their work, the students must decide what resources are acceptable for use, what types of information either serve as assets or indicate low knowledge of the field, and the value of the various types of information and techniques they can use in their projects (Nilsson et al., 2008). They risk producing text too close to that of original sources and being accused of plagiarism (Howard, 1999; Pecorari, 2003) or even of cheating (Nilsson, 2008). Every framing and interpretation of an instruction may result in negative effects in the form of corrections or lower grades, so interpreting instructions implies assessing risk. An increase in less-governed forms of work, such as project work or self-directed individual work, can be interpreted as transmitting uncertainty and complexity—aspects connected with descriptions of risk society into education. In connection with uncertainty, concepts such as trust, danger, and risk can be used in understanding student interaction and decision making. Risk assessment becomes part of the arsenal of techniques we can use to make the world manageable or at least to indicate on what grounds we make decisions (Lupton, 2000); Lupton writes:

Risk anxiety is a prism through which we anticipate possibilities, imagine outcomes of present actions and thus attempt to control or colonize the future. (p. 89)

In sociology, the risk society concept has been connected with the large societal changes occurring in recent decades. In risk society discourse, there is talk of a more complex society (Luhmann, 1988, 1993, 2005) in which the extrication from social bonds and traditions affects the formation of personal identity (Lupton, 1999, p. 4) and in which uncertainty leads to increased anxiety (Salecl, 2004), forcing individuals to take more responsibility for their own lives (Rose, 1999). Citizens are forced to estimate risks in order to handle uncertainty and reduce complexity (Bauman, 2000, 2006; Beck, 1992; Giddens, 1990, 2000). New work forms, individualization, and outcome-based curricula reinforce complexity in education (Rasmussen, 2010). From a

THEORETICAL PERSPECTIVES

student perspective, this is manifested in, for example, the number of decisions to be made in the new work forms:

Complexity changes the understanding of the foundations of the decisions into a selective arrangement which implies that the focus must be on the intended sides of the selections but also the unintended effects such as risk. (Rasmussen, 2010, p. 16)

Risk is arguably part of the foundation of any educational relationship, and as such can be both beneficial and harmful. Biesta (2002) argues that entering as a student into an educational situation always entails a certain degree of risk, that is, the risk of not learning or the risk of learning something one does not want to learn. The learning experience cannot always be pleasant and smooth, as it asks questions that students may not want to face. Biesta (2002) further claims that education can never promise results, as complexity in education means that there is no linearity between input and output. In Biesta's view, the uneven distribution of power between student and teacher represents a kind of violence built into the educational situation, and he talks of transcendental violence as integral to education. The counterpart of this violence is, according to Biesta (2009), the teachers' taking *responsibility* for the students' coming into their presence as a subject and the students' *trust* in educational situations and structures. In the present study, which concentrates on situations in which teachers become more of an absent but assessing party, exercising trust becomes problematic for students. Every approach to the teachers and every question asked must be balanced against the fact that such approaches and questions can affect the appearance of independence and initiative, crucial qualities in completing a successful project. Uncertainty and insecurity, which are connected with individualization, engender another kind of risk that is more difficult to counterbalance with trust and responsibility. A risk connected with having to seek and actively bridge the distance between student and teacher is built into the work form. This kind of risk might be less educational, but still important when trying to understand why students frame the various encountered dilemmas as they do.

In modern risk society, students are not only compelled to follow instructions, but they must do so in such a way that they display independence and originality. These are high standards to set for students in early stages of their education. In the empirical material, this is manifested as constant

consideration of the potential effects of the choices to be made, instead of the basic trust that is a cornerstone of Biesta's description of a good education.

The *risk society perspective* is often ascribed a negative value on account of the word risk. "Risk society' suggests that society is inherently worried about the proliferation and negotiation of 'actual' risks" (Austen, 2009, p. 454). In my thesis the concern with risk (and the connected uncertainty and insecurity) is not negatively biased; instead, it is simply seen as a relevant part of student strategies responding to an educational setting.

Sociocultural approaches to risk

A classic entry point to risk theory is to explain risk and risk assessment in terms of psychological processes. This treats risk as an (actual) consequence of dangers that exist in the physical environment, meaning that attitudes toward risk can be explained by different personality types (Douglas, Wildavsky, & Douglas, 1983). Beck (1992) regards risk as the possibility that harm will occur, whereas Garland (2003) defines risk as potential danger.

Contrary to the psychological perspective, in which risk is viewed as a psychological process related to actual dangers in the environment, Lupton (1999) describes three sociocultural approaches to risk that are briefly discussed below.

The *cultural/symbolic perspective* emphasizes that risk is always linked to culture. Douglas et al. (1983) claim that risk and associated considerations serve to maintain cultural boundaries, making risk a technical resource used to explain why things go wrong or a tool for dealing with potentially dangerous choices that can affect the quality of a project. From this perspective, people always prefer safety and are unwilling to take risks unless they anticipate potentially large negative consequences and, at the same time, the possibility that these consequences will never occur—what Douglas calls a "gambling mindset."

The *governmentality perspective* is connected with Michel Foucault and his development of the concept of governmentality (Foucault, 1991). This perspective connects risk with the self-disciplinary forces of modern society, acting through internal constraint rather than external force.

An important part of the state's effort to govern its citizens is normalization. In normalization, norms, rules, and order are maintained by a form of voluntary self-inflicted discipline, rather than through violence or

THEORETICAL PERSPECTIVES

coercive mechanisms. Risk is here treated as a heterogeneous, “invisible,” and disciplining strategy of power exercise by which populations and individuals are kept under surveillance and managed.

The *risk society perspective* is represented primarily by Beck (1992, 2009a) but also by Giddens (1990, 2000). In some senses, Niklas Luhmann (1988, 1993, 2005) could be linked to this perspective via their emphasis on the connection between risk and complexity. I do not address Luhmann’s effort to develop a grand theory of sociology—which is difficult to combine with Goffman’s focus on situation and interaction (Persson, 2012)—but rather his thoughts on modernity and risk. Those advocating a risk society perspective focus their analysis on the macro or structural level emanating from the increased use of the risk concept in late-modern society or, as Beck puts it, “risk may be defined as a systematic way of dealing with the hazards and insecurities induced and introduced by modernization itself” (Beck, 1992, p. 21).

A central theme of the risk society concept is that of “reflexive modernity,” that is, the notion that late-modern society incorporates a critique of modernism, now considered not only an engine of development but also a creator of dangers. The institutions of late-modern society then also become producers of risk and risk assessment. The emphasis on risk becomes integrated into a society that has become critical of itself. This perspective also emphasizes the high degree of individualization or rather the reduction of tradition and social bonds when developing a personal identity.

In other words, it is assumed in this society that individuals have choices of their own and that they have the ability to control the risks to which they are exposed. Because of this, individuals have no one to blame but themselves when they are exposed to risk, as individuals act at their own risk. At the same time, we are made painfully aware that all our precautions fall short (Lindqvist & Nordänger, 2007).

From this perspective, risk and risk management become human responsibilities rather than the results of exterior forces or faith. Risk assessment represents individual insurance against the negative effects of the choices to be made.

Decision making, risk, and individualization

Both the governmentality and risk society perspectives direct attention toward the individual handling of risk and uncertainty. How we conceive risk and

PROJECT WORK, INDEPENDENCE AND CRITICAL THINKING

conduct risk assessments is, according to Douglas et al. (1983), a collective construct. The present study treats risk as both a collective construct of the working groups and as the individual responsibility of each student. Our conceptions of what constitutes danger and how we organize ourselves are connected. Another way of looking at risk is that of Luhmann (1993), who speaks of two ways of looking at risk: first, as a consequence of decisions where it is possible to visualize an alternative not considered dangerous; second, as danger rather than risk if the risk of loss comes from outside, beyond the choices we can make (Luhmann, 1993). This duality bears a resemblance to Goffman's (1974/1986) reasoning on natural and social frameworks.

According to Luhmann (1993), risk can be decreased by reducing complexity. In project settings this is exemplified by leaning heavily on the instructions or templates provided by teachers, making instructions a governing tool at teachers' disposal. Permer and Permer (2002) describe such governing strategies in their work on the moral order of the classroom. Underlying all these strategies are notions concerning how students develop themselves into responsible self-regulated students (Söderström, 2006)?

The risk perspective is closely connected with the concept of individualization. Looking at course plans and other governing documents, the emphasis on individuality and self-regulation is striking. The concept of individuality was problematic for the studied students, primarily because they were working in groups but also because they were working in a connected environment.

Individuality as a concept in this special setting must be defined by the students, something elaborated on in article 2. Individuality and individualization are key concepts in sociocultural risk theory and, from my perspective, the increase in more individual work forms, such as the project, benefits from being seen in the context of society as a risk society.

Estimates of costs and benefits (i.e., risk) made by the students are treated as essential to their understanding of the encountered situations, or dilemmas, influencing what actions they decide to take.

I use Goffman's work, with his emphasis on interaction, situation, and framing, and the risk society perspective as analytical tools (for an elaboration on the consistency between these two perspectives, see the "Discussion" section). Uncertainty and student discussion of the consequences and potential risk connected with the choices made are original empirical findings.

THEORETICAL PERSPECTIVES

Frame analysis was chosen as it constituted a theoretical tool helping me understand the interaction concerning assessment, uncertainty and risk. The connection between uncertainty, risk, and the risk society perspective is also a theoretical position. It connects what could be observed in the interaction with a way of looking at society that tries to explain why the management of insecurity and risk is so dominant in current society and how this has permeated education by means of the increase in various forms of self-regulated work, such as projects. Beck's (2009b) notion of manufactured uncertainties thus acquires an additional aspect.³

³ Beck speaks of manufactured uncertainties in connection with the development of new technologies such as human genetics, reproductive medicine, and nanotechnology describing them as “dependent on human decisions, created by society itself, immanent to society and thus non-externalizable, collectively imposed and thus individually unavoidable” (Beck, 2009, p. 291).

Research methods and context

The involved students participated in a reading course in a special program primarily intended to prepare them for advanced studies in either the natural or social sciences. The choice of this particular course was random and a consequence of my finding a team of teachers interested in my research and willing to give me access to their classes.

The studied students can generally be described as high achievers. Entry into this program required either the highest or second-highest grade point average (shared with another highly ranked school) in the town where the study took place. In the studied course, 44% of the students “passed with distinction” and 42% “passed with special distinction”⁴ during the study period, something to be considered when looking at the results of this project.

Video-recording was chosen for data collection since it was the method that most closely matched my research goals. An assumption was that video-recording yields a corpus of data that brings the analyst closer to the interaction than do other more classical ethnographic methods.

My point of departure was that I needed a method that made it possible to closely interact with what was said and done by the students, in order to both identify and expose the framing. I also needed a way of looking not only at the particular episodes of interaction cited for discussion purposes in the articles, but at the entire interaction sequences captured in the video-recorded sessions.

The use of video-recordings does not make the analysis easier, but renders the communication visible and “potentially reveals behaviour nested across levels in precarious and contested interactions” (Goldman & McDermott, 2007, p. 112) Video-recordings also made it possible to create a situation that disturbed the students as little as possible.

The empirical material consists of approximately 60 hours of video-recorded group interactions collected over three years. In total, 35 student groups of two or three people participated, several of which were video-recorded and followed for all three years. The aim was not to follow particular

⁴ The grading system used at the time of the study had four levels: failed, passed, passed with distinction, and passed with special distinction.

PROJECT WORK, INDEPENDENCE AND CRITICAL THINKING

groups throughout the project process; instead, the aim was to capture students involved in a process, and to analyse the complex work of doing projects.

The school gave access to a special room prioritized for research project use, and arrangements were made with the observed groups to conduct some of their sessions in this special room. When a recording session started, the room was left to the students. Choosing this mode of work would, I felt, minimize the disturbance caused by the researcher and the technical setting. The chosen technique had the disadvantage that it was impossible to write field notes during the sessions, which would have been helpful in the analysis phase, especially when writing content logs for the various video-recordings.

The screen capture and video-recording of the group interaction were merged and synchronized, resulting in a single file containing the screen captures as the primary source with the recorded group interaction as an overlying frame. The merged screen capture/video file was then fed into the Transana analysis program for transcription and time coding.

Transana allows the transcription and time coding of video and audio files; it is also an analytical tool, developed originally for grounded theory work (Glaser & Strauss, 1967). Analytical terms such as concepts, categories, and notes are incorporated into Transana as keywords, keyword groups, and notations.

In analysing the various video-recorded episodes and clips, I developed a keyword matrix containing four categories of keywords. The first group, intended mainly for sorting the material using the query tool in the program, comprised **background keywords** and was used in distinguishing variables, such as the years and different student groups.

The second group, containing 17 keywords, comprised **situation keywords** referring primarily to **what** the students are doing. The keywords in this category are both sorting and analytical since they were used to find patterns in various situations. Examples from this group are “*analysis*”⁵ and “*aim*.”⁶

The third group, also containing 17 keywords, comprised **activity keywords** focusing primarily on **how** the students handle dilemmas and problematic situations. These keywords are also both sorting and analytical

⁵ Defined: The students are working on the final analysis.

⁶ Defined: The students are writing the aim of the paper.

and were used to find patterns within and similarities between various activities. Examples from this group are “*structuring*”⁷ and “*critical thinking*.”⁸ The fourth group, **theoretical keywords**, was derived from the main theoretical influences of this thesis. Examples from this group are “*framing*” and “*calculation of risks*.” These keywords are used together with situation and activity keywords to relate situations analysed to the main theoretical framework.

Sequential art, transcripts, and representations

When a researcher transforms a very rich material, such as a sequence of video-recorded interactions, into usable transcripts he or she faces many difficulties. Overly “lean” transcripts emphasizing only the spoken words could lead to under-analysis, while extremely rich transcripts, based on conversation analysis (CA) and expanded to incorporate descriptions of actions in the room and on the screen, bodily movements, facial expressions, etc., could result in complicated transcripts that are difficult to decipher. I decided to use a mode of transcription that could represent the visual empirical data while functioning as a perspicuous way to convey the complexity of the interaction. I chose sequential art as a way to meet these almost impossible requirements.

A marked interest in sequential art as an educational tool in the classroom is evident when searching for articles and papers (e.g., Cary, 2006; Christensen, 2006; Heffernan, 2008; Yang, 2008). In recent years, interest has grown in sequential art as an analytical device. Sequential art has been described as a tool for instruction (Mallia, 2007), used to analyse architectural work (Ivarsson, 2008) and interaction in cooperative computer assignments (Greiffenhagen & Watson, 2007), and used as a tool in science education (Lindwall, 2008). Conventions for transcribing verbal interaction are well developed and have been used for a long time. In CA, refined methods for analysing verbal conversations have been developed and proven useful in analysing “naturally occurring” conversations (Goodwin & Heritage, 1990). Over the years, several attempts have been made to extend CA to nonverbal aspects of conversations, for example, the use of gaze (Goodwin, 1979, 2000).

⁷ Defined: The students relate to structure, for example, by discussing whether a section is in the right place or whether the written section really answers the question raised.

⁸ Defined: The students relate to the demand to be critical thinkers or engage in critical thinking in a way that goes beyond the more mechanical exercise of source criticism.

PROJECT WORK, INDEPENDENCE AND CRITICAL THINKING

Goodwin (2000) describes the above attempt to analyse a visual phenomenon as follows:

When it comes to the transcription of visual phenomena we are at the very beginning of such a process. The arrows and other symbols I've used to mark gaze on a transcript (see Goodwin, 1981) capture only a small part of a larger complex constituted by bodies interacting together in a relevant setting. (p. 161)

Using various kinds of images is increasingly common, and one can find detailed examples in various kinds of scientific analysis (e.g., Säljö et al., 2011), but these images are usually used simply for illustrative purposes. The transition toward sequential art as a complete representation of discourse, instead of merely illustrative images, also entails adapting to a particular genre with particular conventions of construction, reading, and interpretation. These conventions have been developed over time and we must accede to them when using this form of text in a scientific setting. As Chute and DeKoven (2006) put it, “in comics, the images are not illustrative of the text, but comprise a separate narrative thread that moves forward in time in a different way” (p. 769).

Using the term of sequential *art* is daring, as the visualizations made can be questioned from an artistic perspective (I am not an artist) and in terms of how well they adhere to comic strip conventions. Using this technique in a scientific environment also limits one's artistic freedom, as the conversation and interaction to be represented are predetermined by the video-recorded content. Being more of an artist could have given me greater freedom to create images that were even more to the point, concentrating on the analytical points to be made. Although my present attempts are questionable in several ways, I still consider that they have something to offer.

In the following example, developed for a chapter in an anthology (Eklöf & Nilsson, 2009), the students are starting the analysis for their report.



Image 1: Turn taking and expressions translated from (Eklöf and Nilsson, 2009)

In this strip I have not used descriptive banners to indicate nonverbal events such as actions or to indicate the passage of time. In some strips I have done so to emphasize a special movement or the importance of a pause. These are standard techniques even in CA transcripts and could easily have been added to the verbal transcript using the appropriate conventions, such as bracketing

Sequentiality is strongly emphasized in the verbal transcript, in which the presented reading order does not indicate the partial simultaneity of some utterances. Simultaneity can be indicated using CA conventions. I claim that sequential art representations also emphasize bodily movements that would be

PROJECT WORK, INDEPENDENCE AND CRITICAL THINKING

difficult to indicate in ordinary verbal-only transcripts. Consider the movements of Rasmus (the boy sitting to the left wearing a black t-shirt), who starts the sequence and is constantly turning his head toward Jan and the two girls.

Viewing the video-recording, there is obvious tension between Rasmus and Felicia, the girl sitting to the right wearing a white tank-top. Felicia is facing away from the group, toward the papers she has placed on the table in front of her, something emphasized in the fifth panel where she is shown alone. This orientation would be more difficult to indicate in an ordinary verbal transcript. When composing these panels, I have reduced the image information by deleting everything in the background that is unimportant to the analysis. Mallia (2007) discusses this (quoting Dwyer, 1978) in his writing on conveying instructions via sequential art:

Since there are limits to the amount of information (stimuli) in visualization that an individual can interact with simultaneously, one possible solution to increase the effectiveness of visualization is to limit or reduce the amount of information presented by the visual. (p. 3)

I consider this unproblematic from an analytical perspective, as all representations omit information. In choosing sequential art as the form of representation for the present analysis, interpretability was a high priority.

I have structured this form of representation in a traditional comic strip way, each panel being bordered by black lines. The narration in sequential art happens in what McCloud (1994) calls the “gutter” between the panels. He states that “comics is closure” (p. 67) and discusses a number of principles governing the transitions between panels. Ault (2004) states that:

The comic page thus celebrates the incompleteness (lack) which produces its structural specificity precisely at the cuts of the panel frames. What is left over, the remainder in the blank space between the panels, performs the disruptive function of the real. There is nothing in this space, but it introduces discontinuities into the spaces of representation and allows the panels to assert themselves as fragments. (p. 3)

Several other choices could have been made regarding the boundaries of the panels. The sizes of the panels could have been varied more, connoting more closeness or openness. I could have chosen to adjust the size and view-point of the panels to zoom in on one person or to frame the whole group, emphasizing either individuality or collaboration. All these considerations are

relevant to comic artists, depending on the feelings they want to evoke in the reader.

If comics are closure and the narrative takes place between the panels, we could face a problem. Elements of sequential art, such as fragmentation, cutting, jumping, juxtaposing images, and choice of viewpoint, are borrowed from cinema (Drucker, 2008, p. 128). Some writers have compared sequential art to the montage in film (Jones, 2005).

McCloud (1994, p. 64) describes several techniques for handling the transition between panels. The most common transitions in western sequential art are from action to action (a topic transition that follows causality), from subject to subject (in which the reader makes the connection), and from scene to scene (commonly used in films to telescope time and distance). All these transition types require a lot of closure, that is, a lot is left in the gutter. The first transition type McCloud (1994) describes is the moment-to-moment type, where one stays within a sequence of events to show progress that unfolds over time. This results in a sequence that is extended in time, with very little closure. In all the strips created for the appended articles, I have used this kind of transition. It prolongs time and does not allow me to save space compared with using an ordinary verbal transcript; on the contrary, it requires more space. Since it is the transition type in which I, as the analyst, retain the most control over the reading process, I believe that it is the transition type most suitable for use in a scientific context.

Methodological discussion

Fangen and Nordli (2005) speak of second-order analysis that takes account of the context and meaning that permeates the examined situation from outside. They also speak of a third-order analysis that also incorporates underlying interests, hidden agendas, etc. Linell (1998) talks about various contextual factors influencing the analysis, especially the “co-text” understood as “the whole interactional co(n)text covering the sequence of relevant actions before the utterance (or action) in focus” (p. 128). In the present analysis, there was a need to discuss specific interactions in light of entire sessions; that is, what had been uttered earlier helped in understanding what the participants “assume, believe, know or understand about the things talked about” (Linell, 1998)—what Linell calls the “model” (p. 129). I assumed that parts of the

interaction before instance X, concerning the same (or similar) topics, may be internalized and affect the interaction in the current strip even though this is not explicitly mentioned. I also wanted to emphasize that an examined interaction is not only an interaction between the participants but also an interaction within a particular understood, negotiated, and internalized social situation that greatly affects the framing. As double dialogicality concerns both situations and traditions, the participants can be seen as engaging in both situated interaction and sociocultural praxis (Linell, 2009). I have made conclusions of that kind when the actions taken are in line with reasoning in earlier situations. The effect of the grade point average perspective is often handled in this way.

Using video to record student interactions gave a data corpus that made it possible to conduct close analysis and look beyond the discrepancies between what participants said and what they actually did. The assumption or expectation is that this analytical approach lets one come closer to the participants than do other more classical ethnographic methods, such as field notes, observation protocols, and coding matrixes, all of which put “analytical rasters” between the researcher and the observed. Such analytical rasters penetrate the primary data, making it difficult for the analysis to look beyond them. In one sense, the episode disappears and the only thing that remains is the reconstruction. This is also true of video-recorded interaction, since the recording also embodies analytical choices. Camera placement, camera angles, and microphone placement are all based on more or less conscious theoretical considerations. How we look at a video-recording or film is influenced by our understanding of film or video watching and of what certain movements and angles stand for (Gleicher, Heck, & Wallick, 2002). In this way, the video-recording also becomes an analytical representation loaded with technique and various theoretical perspectives, a matter discussed, for example, by Hall (2000). Jordan and Henderson (1995) claim that video-recording replaces the bias of the analyst with the bias of the machine (p. 51). Despite these considerations, I claim that the advantages of using video-recording outweigh its drawbacks.

The project was associated with traditions such as video ethnography (Atkinson, 1990; Beach, 2005; Hammersley & Atkinson, 2007) and interaction analysis (Jordan & Henderson, 1995), since there was a need for a methodology that allowed freer use of second- and third-order (Fangen & Nordli, 2005) reasoning in my analysis.

Goffman's frame analysis provides analytical concepts for examining interactions from the participants' point of view, but choosing Goffman and various social and cultural perspectives on risk, and combining these with close studies of video-recorded group interaction, raises important questions regarding both theory and methods, since none of Goffman, Beck, Giddens, or Luhmann has used video or film in their studies. Goffman's interest in the study of interaction in micro-situations is easily combined with the use of video but, in the case of the risk and risk society theories, the gap between such macro theories and the study of micro-situations must be bridged using complementary theories. (For discussion of the theoretical alignment, see chapter 6.)

Interaction analysis is rooted in several fields or methodological traditions, such as ethnography, ethnomethodology, and conversation analysis. Although I have broadened the basis of my analytical claims more than is common in interaction analysis, the explicit interaction constitutes the starting point and main data for developing sense-making assumptions. In doing so, I try to be explicit in explaining why I went beyond the situated interaction, giving the reader the latitude to acknowledge or dispute my analytical claims. Interaction analysts describe their method as an "interdisciplinary method for the empirical investigation of the interaction of human beings with each other and with objects in their environment" (Jordan & Henderson, 1995, p. 39). Interaction analysis considers various human interactions, verbal and nonverbal, but also interaction with the technology and artefacts used in or part of the interaction. Such analysis concentrates on finding patterns and routines, and on identifying problems and the resources used to solve them. The analysis concentrates specifically on the mechanisms by which subjects use their social and material resources to get the work done. Learning becomes an ongoing process that can be understood by the participants' modes of organization (Jordan & Henderson, 1995, pp. 40–41).

The construction of strips of sequential art as analytical representations could be questioned from a scientific point of view but, for me, the analysis emanates from abbreviation and closure. It could be objected that the construction of the representations, being strongly analytically biased, makes it more difficult for other scientists to reinterpret and reanalyse the sequences. All representations, however, result from analytical choices; for example, using video material in studies implies that analyses are made from the video-

PROJECT WORK, INDEPENDENCE AND CRITICAL THINKING

recordings, and that the only fair way of conducting a reanalysis is to use such recordings, which themselves are the product of theoretical choices.

A priori, the choice of camera position embodies a theory about what is relevant to a scene, one that will have enormous consequences for what can be seen in it later (Goodwin, 1994). Likewise, all the decisions underlying the construction of the panels force me to move the analysis away from the verbal transcript toward the original video-recording. I argue that the subjects' bodily positions and what one can discern of their facial expressions add another dimension of understanding to the interpretation of the sequence. The conventions of sequential art help me obtain an emotional understanding and perception of tone and voice. McCloud (1994) says that cartooning is not a way to draw, but a way to see; accordingly, we should position sequential art as a visual analytical construct more than a reflection of a situation. Even if this is so, the approach is still useful for the present analytical purposes

Summary of studies

The four constituent studies of this dissertation are presented here to trace the development of the theoretical framework used in understanding the special problems connected with doing self-regulated project work in an individualized digital information society. The order in which the final articles were developed is somewhat complicated and can serve as good example of what Swales (2004) calls genre chains.

The first article, “Unstructured information as a socio-technical dilemma” (Nilsson, Eklöf, & Ottosson, 2008), was the first written. The text was produced as part of the Borrowed Feathers project funded by the Swedish Research Council, dealing with problems of plagiarism and cheating, and of the ICT and Learning in Teacher Education project, funded by the Swedish Knowledge Foundation. The empirical data were collected during a pilot study in which the video-recording setting was tested. The article has a strong technical bias, since we compiled the data using a special computer program that helped students structure their searches and collect information. In one sense, the article provides an overview, identifying various problems connected with SRL and project work. The text (Nilsson et al., 2008) is published in Hansson’s *Handbook of research on digital information technologies: Innovations, methods and ethical issues*.

The second article, “So I sat down with my mother: Connectedness orientation and pupils’ independence” (Eklöf et al., 2009), focuses on the project work form and difficulties connected with it. Instructions and independence are important topics treated in the article, and are followed up in the third article as well. Self-government and independence are discussed as problematic features of project work. The text is published in *Education and technology for a better world*, edited by A. Tatnall and A. Jones.

The third article, “Instructions, independence, and uncertainty: Student framing in self-regulated project work,” is based on two previous papers. In the first one, from 2007 (Nilsson, Eklöf, & Ottosson, 2007, also written as part of the Borrowed Feathers project), the concepts of uncertainty, risk, and trust surface for the first time in my writing. In the second one, from 2009 (Eklöf, Nilsson, & Ottosson, 2009), the risk and risk society perspectives are

PROJECT WORK, INDEPENDENCE AND CRITICAL THINKING

elaborated on, and the handling of graphic, sequential art transcripts attains its final form. The article based on these two papers and submitted in 2011 further developed the concept of framing—hinted at in the first article—and took account of Goffman’s (1974/1986) ideas. The article focuses on instructions, one of the themes of the wider-ranging first article; early in 2013, it was accepted for publication in the *European Educational Research Journal*.

The fourth article, “A long and winding path: Requirements for critical thinking in project work,” combines the frame perspective with the risk society perspective. It develops the theme of source evaluation, introduced in the first article, and the demand for critical thinking and self-regulation. In 2013, the article was published in *Learning, Culture and Social Interaction*.

Study 1: Unstructured information as a socio-technical dilemma

This article explores how the use of digital information and communication technology challenges traditional school practices and creates dilemmas for students.

The starting point is the notion that the use of digital information, primarily downloaded from the Internet, poses a threat since it forces students to work with unstructured information, whereas traditional textbooks and other educational media are thought to provide information prestructured in a way that promotes learning. Structure appears to be considered something that is simply there, waiting to be apprehended. The alleged lack of structure in digital information therefore constitutes a problem and produces dilemmas that must be resolved.

The text also questions the view of the structuring process as an individual process. Structures, which are imposed through the negotiation of contextual relevance, emphasize that their context and framing are resources that students must draw on in the structuring and evaluation process. One part of the context is technology and our understanding of it. Tuominen et al. (2005) argue that information literacy “is embedded in particular groups and communities” (p. 341).

In the article, we argue that structuring must be seen as a rhetorical accomplishment. Duffy (2003) defines rhetoric as “the ways that institutions and individuals use symbols to structure their thought and shape their conception of the world” (p. 42). This understanding allows us to approach the concept of framing, since it directs our attention toward the ways students make sense of information. Information is always unstructured in one sense but structured in another (or others). The need to restructure information for some other purpose is always implicit, whether or not students have access to educationally prestructured material.

The text challenges the concept of unstructured information, as all information is highly structured in one way or another. Though information may be ill structured for a particular purpose, it always contains a structure intended for a purpose; for example, a text that is structured to advocate a special point of view might be ill structured to serve as a synoptic text on a particular subject. Being able to expose this structure and value, evaluating the usability of information according to its credibility and aims, becomes an

important competence in line with discussions of necessary 21st-century lifelong-learning abilities.

The three examples presented in the article illustrate how different conditions affect the information structuring and source evaluation.

The article claims that this process can be glossed as governance in the name of the digital knowledge (i.e., information) society. The demands placed on students in this society also force them to take up a special identity, that is, the identity of the individualized student personally responsible for being cross disciplinary, evaluating sources, building their own knowledge, and using networked information.

The article strongly questions the notion that digital information poses a special threat, as students cannot rely on its having a preformed learning-centred structure. It is claimed that imposing a relevant structure is a necessity embedded in all learning activities, whether one uses material from the Internet or a textbook. To perceive this structuring process, it is necessary to start by considering the contextual negotiations in which the students are involved. The cited examples indicate that attention is often directed toward features other than the actual content of the assignment, and that the structuring process is also directed toward instructions, rules, and the potential risk connected with being a student. This does not mean that structure is unproblematic. On the contrary, our data illustrate the complexity of finding structure in the types of information, instructions, and contexts applicable to the examined students, as well as the skill with which they go about solving some of the associated problems.

Study 2: So I sat down with my mother: Connectedness orientation and pupils' independence

The first article highlighted that students' understanding of their work process becomes embedded in their cultural understanding and rhetorical sense-making (i.e., framing).

Using the students' mutual negotiations and the small epistemic communities in which they work as entry points for deepening our understanding, the theme of governance hinted at in the first article is developed. The second article starts with a short transcript in which the students discuss the use of various networks; in this way, we are broadening the epistemic communities by applying a connectedness approach (Law et al., 2008; Siemens, 2005), widening the range of information networks available to the students.

Ananiadou and Claro (2009) write that being an independent learner is an important 21st-century competence. However, students' connectedness orientation, in one sense, entails conflict with their definition of what it means to be independent—a major assessment criterion in the course studied.

Questions are raised as to how students can demonstrate independence and how independence can be measured. In line with Foucault (2002), subjectivities such as independence are regarded as discursive positions in an order of discourse. Foucault argues that individuals engage in self-forming activities and draw on discursive orders in order to make themselves into particular objects. We wanted to see what resources were used in this “doing” of independence.

A special difficulty of project work is that the students are expected to work collectively while being assessed based on their individual contributions. Being graded on independence seems to limit independence to such an extent that it seems fair to ask whether the students are not actually being forced into dependence. This contextual constraint seems to make students frame themselves even more strongly in terms of being assessed.

One finding of the article is that students often defined independence as doing things themselves. This suggests something of a paradox, since another finding is that students used various people—for example, peers (outside the project group), parents, and other networks—as assets in the project work process in order to signal their independence, raising the question of what

PROJECT WORK, INDEPENDENCE AND CRITICAL THINKING

independence means in a connectedness-oriented view of the process. “Doing things themselves” is highly contextualized in relation to the students’ appearance in the eyes of their teachers. The article discusses how the teachers’ instructions, when followed to the letter, might hinder the development of independence.

The (in)dependence paradox was formulated to conceptualize this tension. How can independence be achieved when one is *ordered* to be independent? Students demonstrating such independence are therefore also demonstrating dependence. A special kind of independence must be developed within the frames established by the instructions and the position in the grading system. Students clearly indicate that what is needed is to be independent of the teachers while not taking the risk of challenging their assessment and grading frames.

Study 3: Instructions, independence, and uncertainty: Student framing in self-regulated project work

The third article aims at discussing what influences the students' framing in various dilemmas. The risk society perspective provides a more fully developed basis than does the perspective used in earlier texts, and the importance of the projected consequences of choices in the framing process is stressed. The article deals mainly with dilemmas concerning adapting to instructions, this emphasis being motivated by the importance ascribed to instructions in self-regulated work.

The grade point average perspective (Becker et al., 1995), hinted at in previous articles, makes its presence felt as an analytical tool. One way for the students to relate to the risk connected with choices is to pay close attention to the teacher's preferences in the process. Miller and Parlett (1974), with their various elaborations of the cue concept, provide another helpful analytical tool. They express a European perspective highlighting globalization and how educational trends propagate between countries.

Four main positions regarding instructions are presented and illustrated using different road metaphors.

In the first case, the students try to follow the assumed intent of the instructions as closely as possible—what is called “following the main road.” In the second case, following instructions is still a main focus, but by redefining and in a sense manipulating the prerequisites, the students can use and adapt the instructions in what I call “mending the road.” The instructions are adapted in such a way that they fit the work. The third case reveals itself at the end of the second transcript, where the students really transgress the instructions—“bending the road”—by doing something they know is out of order, while still pretending to follow the instructions. They can do this because their risk calculations or assessments indicate that it is safe to do so. These three road metaphors illustrate different ways of accepting and adapting to instructions.

A fourth case highlights a slightly different approach. Here, the students assume a more independent and critical attitude—in what is called “making a detour.” They are willing to risk not following the instructions since they are confident in the superiority of the way chosen. This critical attitude, also directed toward the preconditions of the work, signals a more independent

PROJECT WORK, INDEPENDENCE AND CRITICAL THINKING

and dangerous mode of work, inclined toward the concept of critical thinking (discussed in the last article). The approach is called “taking a detour” because, at the end of the transcript, the students convince themselves that support for their position can be found among some teachers, a thought that leads them back to a safe road.

The article argues strongly that risk management and the reduction of complexity are major considerations in the framing process and the choices made. This adaptation to risk awareness can be seen as mirroring a societal trend toward a self-regulated risk society and exemplifying how the macro world envisioned in global policies imposes itself on the micro world where the students complete their assignments.

Miller and Parlett’s (1974) cue concept is used as an analytic tool. Interestingly, cue-deaf students seem to be absent from our material. In the mode of self-regulated project work, it seems to be impossible to be cue deaf, as it would be too risky. Therefore, a new concept is introduced; the cue-choosing student who must develop the ability to handle conflicting cues, very much in line with Luhmann’s (1993) thoughts on the increasing complexity of modern risk society. Adaptation to a “grade point average perspective” (Becker et al., 1995) is emphasized, and we note that this perspective is more difficult to handle as the students become more alone, disembedded from the teachers in time and space. We ask whether the insecurity of students in the educational system prevents them from developing a truly critical attitude toward their assignments and toward the institutional rules as well, a theme developed in the fourth article.

Study 4: A long and winding path: Requirements for critical thinking in project work

The fourth article links the themes treated in the first three: It knits together the concept of critical evaluation from the first article, the demand for independence explored in the second, and instructions and risk as discussed in the third. The main focus of the fourth article is the development of critical thinking within project work.

The interaction transcripts were categorized and patterns of framing were identified. It seemed that the stage in the project timeline greatly influenced the framing applied. The students focused on either the content of the paper being written or the instructions/student role. Looking at the project timeline and the student focus resulted in a matrix of six possible positions, focusing on either content or the instructions/student role before, during, and after the actual writing. Six transcripts were chosen representing the six main positions, and comic strip representations were made from the transcripts to depict the interactions.

The article starts with excerpts from a 28-minute interaction episode in which the students display a wide range of techniques described in the critical evaluation literature.

To examine traces of critical thinking in the interaction, a working definition was constructed based on various authors (e.g., Atkinson, 1997; Ennis, 1962, 1985, 1989; Lai, 2011) and accepting the usual way of understanding critical thinking, or critical reasoning, as divided into abilities and dispositions. Critical thinking is arguably a practical achievement, something one does together with others in small communities of praxis (Wenger, 1998). The definition of “socially based critical thinking” constructed and used in the article was “what students do together to analyse, deliberate, and evaluate based on a desire to be as accurate and truthful as possible.” The analysis was carried out using concepts such as classroom talk (Mercer, 2004), footing (Goffman, 1979, 1981), category entitlement and stake (Potter, 1996), cognitive authority (Limberg, 2001; Rieh, 2002; 2005, Wilson, 1983), framing (Goffman, 1974/1986), and risk (Beck, 1992; Giddens, 1990; Luhmann, 1993).

The analysis indicates that the timeline factor makes it almost impossible to use critical thinking as a control mechanism after the actual writing. Most

PROJECT WORK, INDEPENDENCE AND CRITICAL THINKING

of the episodes illustrate this point, and the interaction in them indicates that the students in this situation lean heavily on instructions and try to adapt to the role of students completing graded assignments; critical thinking in the sense of displaying a drive to be as accurate and truthful as possible becomes subordinate. The content/instruction focus had a similar and even more profound impact. Only when the students focus directly on the content does it seem possible to find instances of critical thinking as defined in the most common ways.

The demands on the students to apply a critical approach are noted in various documents ranging from national course plans to teachers' instructions and templates. One problem that must be dealt with is that the demand is seldom explicitly defined, so the students and teachers must adapt to a very indefinite governance regime.

In most of the analysed interaction episodes, the common definitions of critical thinking were not applicable when describing what was going on. On the other hand, this does not imply that the students lack critical thinking skills. It becomes more a question of how we define critical thinking and how we regard opportunities to exercise it in a self-regulated, graded assignment situation. The risk perspective, which entails assessing costs and benefits, becomes more dominant as the writing process develops over time. From such a perspective, self-regulated work can arguably be considered a mode of work that endangers students; hence, awareness of dangers as risks that need to be assessed has become important in succeeding in the education game.

Discussion and concluding remarks

The analysis conducted emanates from the students' sense-making and is rooted in the concept of double dialogicality. In and through communicative and cognitive activities, participants in the activity in question engage in both situated interaction and sociocultural practice (Linell, 2009, p. 52). The four articles can be seen as four cases, each trying to isolate one or more aspects of the work mode that creates dilemmas.

A recurrent topic in the four constituent articles of this thesis is the special demands imposed on the students when working in project form. The aims of this research describe three levels of discussion. The first level deals with what appears problematic in students' interaction when working in the project mode and how these problems are solved and what resources are used. The second level deals with how the special demands imposed on the students, such as being independent, self-regulated, and critical, influence their interactions, chosen actions, and resources used in the encountered dilemmas. The third level tries to look on the empirical findings through the lens of the social and cultural risk perspective.

I will start the discussion section by developing my claim that the connection between frame analysis and risk theory is both fruitful and possible. After that I will discuss the empirical findings in light of the three levels described.

Combining framing and a risk society perspective

The two perspectives chosen, that is, the Goffmanian view of interaction, situation, and framing and the risk society perspective are complementary theoretical perspectives that I use to be able to discuss the different levels of the analysis. The expressions of uncertainty and the discussions of consequences and potential risks connected with the choices the students had to make are rooted in the empirical material. The analysis clearly emphasizes that there is a strategic streak in the interaction. For example, group participants could consider what teacher is likely to be the reader and come to

PROJECT WORK, INDEPENDENCE AND CRITICAL THINKING

terms with how best to adapt to this teacher's conception of what constitutes good work.

Viewing signs of uncertainty and risk from a risk society perspective is a theoretical position. In the above example, the students narrow the risk in the situation by means of such rational adaptations.

In accepting descriptions of late-modern society as a risk society, the uncertainty and explicit evaluation of risk and consequences found in the empirical material can be regarded as matters that transcend the situated interaction and as such constitute part of a larger trend.

Juxtaposing Goffman's thought to modernity theories developed after his actual writing, though possibly a bold move, is something that several scholars have considered (see, e.g., Jacobsen, 2010). There are, of course, differences between these approaches that are difficult to overcome. Branaman (2010), for example, notes how much the Goffmanian view of individuality differs from the individuality of modernity theorists such as Beck and Bauman who emphasize that individual identity today is something controlled and manipulated, whereas Goffman (1959/2004) spoke of how we act or perform and how well we are recognized by others as what shapes our identity (p. 249). Goffman focuses on self-presentation more than self-monitoring, as is the case with Beck and Giddens (Lyng, 2011).

The distinction is valid but the differences are not so extreme that the combination of perspectives is inconsistent. The use of framing emanates from a view of socially guided doings and asks whether changes in social context alter the framing. Goffman and the risk society theorists simply have different approaches to people as members of society. The society in which Goffman wrote was a more stable society than the one in which the studied students had to function. It had a strict set of codes or rituals to be acted on, making self-presentation a viable metaphor. One fundamental of theories of late modernity is the release from traditions and old rituals, together with increased individuality and personal responsibility, making self-monitoring more important. The act of self-presentation is still valid, but the set of rules and rituals to act upon is more diversified.

Hacking (2004) has discussed the connection between Foucault and Goffman and addressed how discourses become part of everyday life. He describes these two perspectives as complementary:

It aims not at finding a doctrine or a method that lies in between those proposed, at various times, by each of the two men, but at explaining why

DISCUSSION AND CONCLUDING REMARKS

we need both. The two perspectives are complementary and both are necessary. (Hacking, 2004, p. 278)

Although Goffman, in frame analysis, contributed tools for examining the situated interaction, I see these tools as not fully sufficient⁹ for understanding the institutional setting and how changing society influences the settings and image of the self, and the images of what to achieve and become, that students bring to the interaction. The risk society perspective adds this layer, saying something about “how institutions come into being, and what organizations of thought and statements have to do with our thinking” (Hacking, 2004, p. 299). Hancock and Garner (2011) emphasize that even if the risk in a risk society perspective is described as a macro problem, it constitutes a micro problem for the individual who has to deal with risk in daily life, making Goffman’s way of approaching and describing human interaction as socially contextualized one possibility.

Using the concepts of risk, risk assessment, and risk management in accordance with how they are used primarily in the risk society and governmentality perspectives offers a way of understanding the choices that had to be made to frame the situation as rooted in and highly dependent on enacted feelings of uncertainty and risk.

Applying a risk perspective also emphasizes the importance of context, since it incorporates both the hidden and overt power structures of the school and sees them in relation to important modernity theories. One important question is accordingly whether this risk awareness threatens the students’ creativity and steers them too strongly toward their conception of the teachers’ supposed preferences. Risk, complexity, and complexity reduction all become part of the framing. The school apparatus (Simons & Olssen, 2010) in itself is a way of reducing the complexity of learning, as is the assessment. Through the framing, students in an assessed situation (what I call the student/grade frame) can reduce the complexity; this shifts the focus to certain definitions of what is going on, rendering other possible definitions less usable. This also implies that the learning itself is affected by the awareness of being assessed, since the framing process also affects the outcome of the learning process or, as Biesta (2010) puts it, “assessment thus

⁹ I say “fully sufficient” while recognizing Goffman’s awareness of the importance of the setting (Goffman, 1959/2004) and his emphasis on interaction as always going on between individuals in society (Persson, 2012).

PROJECT WORK, INDEPENDENCE AND CRITICAL THINKING

provides us with an example of complexity reduction in education which operates both retrospectively and prospectively” (p. 9).

To understand the interactions occurring and the decisions made, a three-level structure must be taken into account. First, there is the level of interaction within the group, which functions as a sort of epistemic community. Rules of interaction, social roles, intersecting networks, and division of labour determine what is said and what actions are taken. Framing as a group process helps me expose, describe, understand, and analyse this primary level. This group interaction is heavily influenced and governed by the institutional setting, i.e., the contents of the curriculum, course plan, and instructions and how the teachers communicate these contents to the students. This is a level of negotiation. How to understand these institutional cues, from the student perspective, is neither clear-cut nor self-evident. Actions taken in order to carry on must be collectively understood and framed. For the students, this framing process is sometimes replete with pain and uncertainty, both of which are connected with risk. The students must constantly evaluate or estimate the consequences of the choices made.

There is a strong connection between the first level, group interaction, and the second level, institutional setting. The first level cannot be understood without the second and the second has no life or meaning without the negotiation occurring in the first. The third level is the concept of the risk society, a society of individualization and choice that puts the individual at risk. A more stable, traditional society was also perceived as less risky, since there were clearer codes governing how to behave and what was expected of citizens. Similarly, a more traditionally organized school was, in one sense, experienced as less risky, since the students did not have to decide what to do, so much as perform as well as possible in the given structure. This third level, appearing in the aims of the study, concerns how a changing society interacts with the other two levels described. The institutional setting of the studied schools and project course is influenced by this increasing individuality, evident in specific curriculum formulations and in the ongoing increase in individualized work forms. It also influences the primary level of the group interaction, since it affects student self-image and the demands students place on themselves. The group framing process is clearly and directly affected by the institutional level but also, and more indirectly, by the pressure of what one must be to acquire the skills of a competent citizen of the 21st-century information society. If risk

is a dominant part of modern society, risk also penetrates the actual classroom work, through the increase of individual work forms.

By applying a social macro perspective such as the risk society perspective, I claim that, to understand the choices made and why students work as they do, implementing project work in a larger societal context brings out another level of understanding, or at least another possible way of creating explanations.

Contextualizing the absent teacher

A major aspect of the study setting was the decision to make the video-recordings when the teachers were not physically present. The absent teachers aligned with the special preconditions for the project work and the students' apprehensions of these conditions form, I think, a special context encouraging the students to make safe choices, which in turn influence the learning outcome.

The students' lack of knowledge of the field about which their teachers pose question always causes dilemmas. The boys M and K, examined in the first article, lack the needed understanding of the phases of the industrial revolution in England, which can be used as a schema for understanding a similar process in another country. Because of this lack of background knowledge, the two boys must put considerable effort into trying to understand a question that seems very unclear to them. The main problem, in relation to this study, is that the person who should be the first natural reference is physically excluded from the process and the consequences of accessing that person appear uncertain.

Examples of the opposite case, that is, occasions when the students' prior knowledge appears to be an important part of their decision making, are also found, for example, in the fourth article, in which the students' understanding of the preconditions for commercial TV functions as a basis for their reasoning, or in the first article, in which the students' understanding of the different agendas of morning and evening papers greatly influences their reasoning.

Another difficulty the students encounter is connected to the mode of work, that is, the project, which aligns my first and second analytical layers. This is evident when the students have to figure out *why something must be done*, for example, why to use a specific kind of source (or language in article four),

or in the frequent discussions of how long a section should be or how other groups have solved the problems encountered. In all the articles, the empirical material indicates that, in such dilemmas, students tend to seek formalistic answers. Teachers' oral and written instructions are the only available aids, and interpreting and following these instructions become extremely important and powerful. These instructions often function as rules of thumb, whereas consideration of why these rules exist or what they are supposed to accomplish is nearly non-existent.

Having difficulties related to the basic understanding of the content area or the work form forces the student groups to make various interpretations, although they are often socialized to follow rules rather than being subjectified (Biesta, 2013) to actively relate to these rules as individuals. Having to make various interpretations of instructions, assignments, and the general reasons why something has to be done in a certain way is common in the empirical material and is mentioned in all four articles. A striking example from the first article is the boys' struggle with the meaning of a Swedish word used in the assignment: they become stuck in what they see as vagueness and in having to decide on a meaning to be able to move on. These interpretations become a major element of the students' framing, increasing their uncertainty and vulnerability and making risk crucial to how they orient themselves. This makes the project work a mirror of a society that manufactures uncertainty (Beck 2009b) and a work form in which the students are governed partly with the aid of uncertainty.

Projects and the production of uncertainty

How to relate to the demand for independence, one of the grading criteria, was a theme of the second article. This insecurity and the negotiations connected with it also constitute a kind of dilemma concerning the basic understanding of the work mode. This has been described as a problem of appearance more than anything else. It is evident in the material that bringing in other resources, such as peers and other groups, does not constitute a problem for the groups, nor does consulting the researcher (me) when present. In my material, such collaboration is not treated as either a formal or an ethical problem. The interactions with other groups usually concern formal matters or how to interpret specific instructions, whereas the interactions with peers (or the researcher) usually concern matters of both form and content.

DISCUSSION AND CONCLUDING REMARKS

The question of appearance in relation to the teachers is problematic. In several episodes, the students state that asking the teachers for help is not a primary option. They believe that asking too many questions could jeopardize the marks awarded for independence, and apply this belief directly to teacher instructions and even to direct questions put to the teachers in introductory meetings. By not asking questions one potential risk is reduced. The concentration on reducing the risk of getting lower grades does not easily mesh with the requirements for high quality and signs of original thinking in the materials produced. The duality between safety and quality can be aligned with the two main frames I generated from the student interaction, safety being a prime ingredient of the student/grade framework and quality of the author framework. The tension between these two sets of frameworks becomes one of the major dilemmas to be resolved.

This kind of problematic situation occurs in the project setting but cannot be seen as specific to projects. The connection between students' prior knowledge and the outcome of searches and search-related assignments is well-established in research (e.g., Bruce, 1997; Limberg & Sundin, 2006), as is the constant search for cues in order to be sure of teacher intentions (Miller & Parlett, 1974). However, the special preconditions in this study, that is, physically absent teachers and an awareness of the marks awarded for independence, seem to emphasize these difficulties, making the dilemmas more difficult to overcome. The study contains empirical examples of the students' making the safest choices in such situations, even when they regard the alternatives as better. Both the risk of making a choice considered not in line with instructions and the risk of asking the teachers too many questions are considered too great, illustrating Douglas et al.'s (1983) view of risk, that is, that we always prefer safety. Actions that could be connected to a "gambling mindset" are seldom evident in the material; when they are, it is in connection with some kind of insurance in the form of conflicting instructions where one or the other could be chosen, with oral reassurance, or with a certainty that the students can keep up appearances, as in the detour example cited in article 3. The absent teachers and the importance accorded to keeping them absent and demonstrating independence thus increase the students' insecurity, making their choices appear riskier. However, another effect is evident in the empirical material. In one way, the description of teachers as absent can be questioned. Regarding several occasions reported in the second and especially the fourth articles, I describe the instructions as

taking on a life of their own as constituting a powerful teacher's voice. In this way, the teachers appear as third parties in the interaction, their physical absence diminishing their role as tutors and exaggerating their role as unquestionable assessing forces.

The students also face other more specific dilemmas more closely connected to their special setting. One is described as the demand for independence coming into conflict with itself, giving rise to a limited form of independence not trespassing the boundaries set by the teachers, a matter discussed in the second article in terms of the (in)dependence paradox. Very little, if anything, in the empirical material openly challenges the general settings. This is understandable, since the students have to function within a given structure, governed by a national course plan, grading criteria, and locally developed instructions. Their role as students makes it difficult to challenge the structure on a general level. A common strategy is to transform the instructions into rules of thumb that must be followed to the letter, reducing the complexity of having to balance different objectives, of being obedient while being creative.

The above examples illustrate how the project form itself produces uncertainty that has to be dealt with in some way. It also shows how the students in various ways try to reduce this uncertainty.

Two dominant frames

Dilemmas also occur in direct relation to the framing of the situations. Framing is about figuring out "what's going on" (Goffman, 1974/1986) and is manifested in our examples in what students say and do in the problematic situations that give rise to dilemmas. In framing, the students organize their experience of similar situations so as to understand and act in line with their special dynamics (Persson, 2012). In our material, various ways of framing are easily discerned; for example, in article 1, the students have to balance opposite objectives, choosing between the rules guiding technology use and the rules guiding their assessment, and in article 3, they balance the fact that a source article is in a "high-mark" language, that is, English, against the fact that it is on a "low-mark" website written for kids. In both these cases, the students have to choose between framing themselves as obedient and cautious or as creative and risk taking.

Two major frames are used in understanding two broad aspects of the sense-making occurring in the present context; I call these the author frame and the student/grade frame.¹⁰ These two superordinate frames are given high explanatory value in my analysis. They say something about the main principles underlying our understanding of “what’s going on” and therefore have value when trying to analyse and understand the actions taken by the students. Briefly stated, the author frame primarily defines “what’s going on” as the production of a text that says something and is as accurate, controlled, well written, and readable as possible. The student/grade frame implies that one’s primary focus is the special situation, that is, one’s production as a student and as part of an assignment. As I have demonstrated in the articles, these two main frames influence the decision making in nearly all the dilemmas discussed, and which one is dominant is influenced by several factors, such as how the required level of independence is defined and how the risk is assessed.

The conclusion that students use a grade frame supports the idea that students draw on a hidden curriculum (Broady, 1985; Jackson, 1968), but in this case they make it overt. Becker, Geer, and Hughes (1995) describe their “grade point average perspective” as “a common frame of reference in which communication may take place” (p. 28). They emphasize that the perspective does not explain student action but provides a description with explanatory force only in the sense of constituting a larger whole influencing what makes sense to the students (p. 30). For Becker et al. (1995), the driving force behind the perspective is that students “do whatever is necessary to get ‘good grades’, not expending effort on any other goal in the academic arena until that has been achieved” in order to be successful as students (p. 34).

The student/grade frame

The concept of a student/grade frame is comparable to several other attempts to describe the discrepancies between the declared learning goals in curricula and course plans and what students actually do. Lemke’s (1990) concept of “playing the classroom game” and Pope’s (2003) of “doing school” both

¹⁰ I chose these labels when writing the articles and found that they served my special purposes. The author frame alludes to the work of primarily being the author of a text answering to the qualitative demands of being an author. Using Goffman’s thought as a theoretical basis, I now see that the choice made can be confusing. The way I use “author” is not the same as the way Goffman does when he talks about footing (Goffman, 1979); my use of the author frame is more similar to the concept of principle in Goffman’s terminology. But since I made these choices, I have to stick to my metaphors.

focus on what to do in order to present the right appearance in the classroom—in other words, how the activities are framed. Berland and Hammer (2011) discuss such frame descriptions in relation to communication studies and various kinds of pseudo actions taken primarily to communicate with teachers. Similarly, Jimenez-Aleixandre et al. (2000) distinguish between “doing the lesson” and “doing science,” the first concept referring to the rules of the task or the special school culture. Berge (1988) differentiates between strategic actions taken to achieve a certain goal, ritual actions taken simply because that is how things are conventionally done, and finally communicative actions chosen because we want the receiver to understand something in particular. As can be seen, several scholars have discussed and described the special situation of being a student in similar ways. The common denominator is that there often exists a gulf between the intended learning that is to occur in schools and is desired by teachers and the actions and motivations observed among students. The students play the classroom game, do school and do the lesson, perform ritual and strategic actions, but at the same time do something else. My use of the student/grade frame refers to such descriptions. It is less normative, instead highlighting the duality between the main frames. Both are necessary parts of the difficult balancing act of being a student.

The author frame

From the claims made, it might be more difficult to accept the concept of the other main frame, the author frame. The students never cease to be students but, at least when looking at their interaction in various situations, one sees that it is clearly possible for them to turn toward the content, that is, their hypotheses and findings, trying to develop logical and convincing reasoning in the most believable way possible, simply because what they are saying seems important to them, as illustrated by Tom, Marty, Robert, and Jonas in the third article. When closing in on smaller parts of the interaction, it is easier to make this distinction between actions within one frame or the other.

My use of the student/grade frame is less coercive than Becker et al.’s (1995) use of the “grade point average perspective.” The student/grade frame presents itself as one possible option of two dominant possibilities. The author frame is more closely connected to the incentives underlying the project work, whereas the student/grade frame is more closely connected to

being placed inside the frame of an assessed project. These two main frames are intertwined, with each illustrating the complexity of working within a school project.

Working within the frames

How students act within these frames is a complicated and intricate matter. In analysing students' orientation toward instructions, several positions or models were tested in the third article. Four approaches to resolving dilemmas occurring in relation to implementing or relating to previously given instructions were distinguished, and four road metaphors were used to describe these approaches. All of them emanate from the students' framing and the kinds of risk assessments evident in the student interaction.

The main road describes a way of regarding the instructions as guiding principles. The student activity is interpreted as relating to the general meaning of the instructions and students try to write in a way that is in accordance with this apprehended meaning.

Mending the road describes an instrumentalist position. The students try to make small changes in their material to be able to work in line with the instructions.

Bending the road describes an approach in which the students try to adapt the instructions or material to make it appear as though they have been following the instructions, even though they are aware that they are not.

Making a detour describes occasions when students choose to ignore some of the direct instructions, calculating that their judgment of quality will have precedence over the instructions. If the second approach is the most instrumentalist, the fourth one is the least instrumentalist.

These four ways of dealing with teachers' instructions were observed in the material and helped me categorize and identify different ways of dealing with one of the large dilemmas in self-regulated work, namely, following instructions. The special circumstances of the course studied or, more specifically, the special interpretations made of these circumstances, meant that certain ways of dealing with the opaqueness of the instructions were eliminated from the alternatives when choosing what approach to take. In the mending the road example, the students refrain from asking the teacher about their uncertainties, unwilling to risk being seen as dependent—this being another example of the problematic nature of the concept of independence.

In relation to the main frames, it is more obvious that the mending and bending approaches appear mainly within the student/grade frame, while the two other approaches are, more or less, laminations of both the frames, the first rooted in the student/grade frame and the second in the author frame. I claim that the notion of frames could be helpful in illustrating and explaining what approaches can or are likely to be chosen. A bending the road way of dealing with the problems implies a student/grade framing. When acting within an author frame, the problem of pretending would never appear, as the students could instead say that they were not applying a particular rule, since they had chosen a different solution.

Roads and risks

The concept of risk and how the student uses risk as a resource helps me describe and understand how these various approaches work. As the main road approach is based on risk elimination, there is no need for open discussion of potential risks. Straight off, if one tries to adhere as closely as possible to the apprehended essence of the instructions, one has done as much as possible to reduce potential danger, so trying to interpret and follow the instructions also becomes a risk-reduction strategy.

The interactions in the mending and bending cases reveal instances of different kinds of overt risk assessment. In the first case, we first have the refusal to ask questions of the teacher, given the risk of being considered less independent. Another example is when the students fear that weak adherence to the letter of the instructions could affect the teacher's judgment, so they try to make their use of the instructions obvious in their text, even though they did not actually serve as guiding principles during the writing. In the bending case, there is a very explicit discussion of the potential risk of their deception being discovered; the students conclude that the risk can be ignored since the only person who could expose them is the researcher and his video-recording, and he is prohibited from doing so, according to their interpretation of the research ethics. The fourth case—the detour case—is especially interesting from a risk perspective. On one hand, the students are willing to take the risk of not following the instructions, since they are confident in the superiority of the methods they have chosen; on the other hand, they have some “risk insurance” in the form of the teacher's prior approval of their writing.

The cue-choosing student and 21st-century competences

As in the placement within the main frames, the application of risk assessment also turned out to be useful when trying to understand how the various approaches to instructions are understood and used.

The students have to conduct these risk assessments mostly by themselves, in their epistemic communities, since the teachers are usually present in the interaction only in the form of absent third parties (Linell, 2009). They must also do this in such a way as to demonstrate independence and originality.

Miller and Parlett's (1974) classical categorization of student awareness comprises cue consciousness, cue seeking, and cue deafness. They saw student awareness of being assessed as a major determinant of student discussion and thus an important part of the framing process. In our material, all students are always more or less cue conscious. The third position, being cue deaf, was the most common approach in Miller and Parlett's material. The students they studied were described as unconcerned with the impression they made on the staff. For these students, it seemed that working as hard as possible was the main determinant of success. They believed that the impression they made on staff—if they did make one—would not affect how they were marked. Nor did they speak of picking up hints (p. 52).

This position seems to be absent from our material. It is not that the students did not believe in hard work, but rather that they all seemed to be strongly aware of instructions and other structural signals, were constantly seeking clues about how to act, and often made active choices as to what clue to follow. Not only did the students have to be aware of the consequences of their actions in situations in which they were being assessed; in addition, they constantly had to try to predict how their efforts would score in the examination game. It is obvious that a Swedish equivalent of the grade point average perspective (Becker et al., 1995) is integrated into our students' framing and choice of actions. Furthermore—and here I supplement Miller and Parlett (1974)—the complexity of work in assessment situations governed by an abundance of seemingly opaque or even contradictory written or oral instructions from teachers' forces students not only to follow instructions but to choose among them. Working on projects in our late-modern, individualized, complex, connected society transforms the students into cue-conscious, cue-seeking, and, moreover, cue-choosing agents.

If being cue conscious and cue choosing can be connected to a particular working mode of late-modern society, and applying the concept of risk is useful in describing the various road metaphors, these same metaphors might also be used to describe how different approaches to risk form us as citizens applying our 21st-century competences. As a thought experiment, these four roads, deduced from the empirical material, might also describe four roads into the 21st century, forming a typology of four kinds of dynamic positions that can be used.

The travellers on the main road are obedient: They are concerned with doing things right. Risk is a natural condition, and by trying to do things the right way, these travellers eliminate as much risk as possible. Their defined action space is limited, but inside this space they move unimpeded since the risk of doing so is minimal.

The citizens who mend or bend the road are differentiated by degree more than by attitude. If the road menders are uncertain whether they are doing things the right way and are prepared to polish and fine-tune their material in order to appear on track, the benders know that they are *not* doing things the right way and are prepared to dissemble and mislead if they are sure of not being caught. Perhaps the increased cheating found in higher education can partly be explained by the success of this strategy. Both the menders and benders try to reduce the risk of not being on the main road in their own particular ways.

Those who take detours are non-instrumentalists. They feel insecurity but compensate for this by having confidence in their judgment of quality and question the limitations set by the work mode. In Biesta's (2002) terms, they have a basic trust both in their own ability and in the fairness of the assessment.

The detour travellers are the rarest but maybe, at the same time, those most in line with descriptions of 21st-century competences.

Reducing complexity by managing risk

The third level described in my aims emanates from, but goes beyond, the actual interaction strips complementing the analysis with a modernity theory, such as the risk society perspective. The assessment of costs/benefits and risk observed in the empirical material early on led to thoughts regarding what could be analytically perceived as risk using risk theory when studying the

DISCUSSION AND CONCLUDING REMARKS

students framing and choice of alternatives. In the material, risk manifested itself in the form of both complexity reduction and direct estimates of potential harm connected with certain choices. Complexity reduction is manifested, for example, in following instructions to the letter instead of continuing discussions that problematize the instructions (see articles 1 and 3) or in choosing not to ask questions of the teacher (see article 3). Direct estimates of potential harm are evident in several of our empirical examples. In the first article, for example, the students face a concrete risk when the nature of the assignment (i.e., discussing the most used websites) leads them to sites that are not in line with the general school rules (i.e., pornographic sites), especially since they are aware of the risk of virus infection. In this case, the risk is reduced by reinterpreting the rules: Visiting pornographic sites is not allowed in school unless it inadvertently results from the intended activity, whereas the same activity under a different frame may well be considered a breach of proper conduct. The unintended and unavoidable result of their work on the assignment puts them in this situation. The third article presents examples both of the reluctance to ask questions of the teachers, since students then risk being considered less independent, and of how the students try to adapt, bend, or even transcend the teacher's instructions, estimating the risk of exposure. Risk is also a factor when the students are aware of transgressing the rules: they may conclude that nobody can report them or, when they choose to work in their own way, reassure themselves that they have prior approval (see article 3), or they risk being accused of plagiarism or of interpreting the instructions the wrong way (see article 4).

The examples cited above all concern overt risk assessments, since the students have to choose between various alternatives and calculate potential risks connected with them. We have also cited examples of more hidden assessments, as in the fourth article where using more sources is considered an advantage in the "game" or using several independent sources all stating the same thing is thought likely to reduce the possibility of a weak assessment.

The importance of uncertainty has been discussed before, by Biesta (2002) among others, but this aspect has largely been neglected. Lupton (1999) emphasizes that, from a sociocultural perspective, risk tends to be discussed from a macro perspective as a grand theory and claims that "there remains much room for investigations addressing these issues, which brings together theories of risk with empirical research and goes beyond the universal 'risk

PROJECT WORK, INDEPENDENCE AND CRITICAL THINKING

subject' that tends to appear in the 'risk society' and 'governmentality' perspectives" (p. 6).

There are similarities between Becker et al.'s (1995) grade point average perspective and what I call the student/grade frame. In Becker et al. (1995), the grade point average becomes a completely dominant frame, the one that more than anything else determines how and why students act the way they do. I have cited empirical examples to demonstrate the importance of such a perspective, although I see it as less coercive than in the American context. It is not, as in the American example, connected to a mean grade value. The grade point average perspective is described as "a common frame of reference" (Becker et al., 1995, p. 28) in which attaining acceptable grades is the dominant consideration influencing all other goals. My division between a student/grade frame and an author frame implies the possibility of at least temporarily transcending the grip of the grade, moving toward a more "academic" approach.

The student/grade frame can easily be connected with a risk perspective. Being aware of and attuned to an assessment perspective forces the students to calculate the cost of the choices made in terms of potential losses and benefits. Risk is always connected with choice, so handling risk in the context of modernity entails calculating or juxtaposing the alternative outcomes of a situation and choosing the one associated with the fewest disadvantages and most benefits.

The other frame I have been using, the author frame, points in a different, but complementary, direction. In the empirical material, I have identified instances in which the students (at least temporarily) extricate themselves from the student/grade frame, concentrating instead on creating a solid voice backing up their claims. These two frames are in a way inseparable, intertwined, and simultaneously present. It could, in line with Becker et al. (1995), also be argued that the awareness of risk is equally present in the author frame, but disguised in terms of another orientation due to the interrelationship between the two frames. However, I claim that this would imply a reduction in the prevalence of the author frame. A major point in identifying and using the author frame is that the students, despite the limitations and demands they face and manage, demonstrate that they can devote themselves to the material and make their voices as accurate and truthful as possible. They demonstrate how being a student becomes a question of balance between these two frames. My empirical material also illustrates how the

demands, grading criteria, project work layout, distribution of time, etc., influence this balance in favour of the student/grade frame.

Frames, risk, and perspectives on critical thinking

The fourth article dealt with the problem of critical thinking and source criticism in project work. Given a fairly traditional definition of critical thinking, that is, what students do together to analyse, deliberate, and evaluate based on a desire to be as accurate and truthful as possible, the first striking observation was that the presence of special “buzz words” or explicit talk about critical thinking or source criticism did not constitute evidence of any kind of critical thinking in line with the given definition. I had to delve further into the interaction to understand the various ways of being critical thinkers that were being displayed.

All excerpts from my material categorized as displaying critical thinking and/or source criticism were inserted into a matrix to reveal patterns related to what seemed to influence how the students performed source criticism and how signs of critical thinking could be observed.

Looking at this categorization, several patterns were observed and two underlying explanatory factors were identified. The first explanatory factor concerned student focus. The “content focus” was directed toward the subject about which the students were writing, whereas the “instruction focus” was directed toward how to write and toward what had been said about how and why critical thinking and source criticism were to be applied in the work.

As can be seen, there are similarities between the content focus and the author frame and between the instruction focus and the student/grade frame, though these concepts work on different levels. The two foci, content and instruction, are used on a closer interaction level to examine instances already categorized as dealing with a particular concept, in this case, critical thinking and/or source criticism.

The other explanatory factor that could be observed as influencing how students related to critical thinking and source criticism concerned time. How far in the project work process the students had progressed interacted with their way of being critical and of conducting source criticism. To examine this factor, I roughly categorized whether students were at the beginning, middle,

PROJECT WORK, INDEPENDENCE AND CRITICAL THINKING

or end of the project work. Combining the two foci (i.e., content or instruction) with the three time phases (i.e., beginning, middle, and end of project) resulted in six positions, recalling Bakhtin's (1981) concept of chronotope, though here the spatial aspect concerns a kind of mental space, an interactional focus, while the time aspect concerns the placement within the project timeline seen from start to finish.

By looking at the interaction and the actions taken in light of these six positions, I could compare the observations with my definition, and say something about whether the actions taken were in line with a classical (but elaborated) definition of critical thinking or whether something else could be spotted.

In all cases in which the instruction focus was dominant, a student/grade frame could be applied and various risk assessments could be seen. The student/grade frame lets students see that they are endangered, in a risky position. In the cases in which the students were looking more at the content, that is, applying a content focus, the risk perspective was not similarly overt. Placing themselves in an author frame seemed to allow the students to ignore the riskiness of their situation.

But these positions also have a time component to be taken into account. The closer the students came to the end of the project process, the more difficult it was to ignore the risk inherent in being a student. When stuck in the student/grade frame, executing critical thinking becomes increasingly difficult as one progresses in the writing project. According to the matrix, as one closes in on the end of the project process, it becomes nearly impossible to prioritize the sense of true voice; instead, the aim of following instructions and living up to the grading criteria take the upper hand. In the material, the calculation of costs and benefits becomes more dominant as the writing process develops over time. It seems as though it is only early in the project, when the focus is on the content, that the opportunity to exercise critical thinking in the classical sense is realized.

Reframing critical thinking

We have to put our way of understanding and defining critical thinking under the microscope. If we accept the dominance of a grade point average perspective and the strength of the student/grade frame, we have reason to implement another point of view. One obligation of a student is to be a good

student. Even in the cases in my analysis in which it was impossible to fit the student interactions into the usual definitions of critical thinking, it can be claimed that critical thinking was present, but with a different orientation, that is, a student/grade mode of critical thinking. Trying to critically analyse what must be done to succeed in the special situation could also be seen as a critical competence. Though the students do not display critical thinking in the classical sense, it is also possible to argue that they are adapting to a much stronger rationality, that is, that of being good students answering to an IRE¹¹ pattern (Mehan, 1979; Prior, 1998). That is probably also the best path to take if one is an ambitious student. Although the students' handling of the demands placed on them is sometimes questioned in relation to the usual ways of describing a critical approach, I claim that what is seen can also be interpreted as a rational adaptation to another framing of what school and education are really about.

Uncertainty, risk, and trust: from individualization to individualized risk

One entry point for me was the connection between the skills required for project work and the 21st-century skills described by, among others, the OECD and Partnership for 21st Century Skills (Ananiadou & Claro, 2009; Partnership for 21st Century Skills, 2009a, b), as both include the ability to think creatively in various ways, solve problems, reason effectively, communicate and collaborate with others, and assume responsibility for collective work. In the students' definitions of being independent, the concepts of doing something by oneself (i.e., acting when others are absent) and being personally responsible seem to be shared elements. In our material, we can see that "oneself" includes not only the particular working group, but usually other groups and other members of a person's network, such as family. Even when the students are "alone" and responsible, they are always connected to a larger context. The one network member they are reluctant to approach seems to be the teacher directly involved in the assignment, at least outside the scheduled tutoring sessions.

As seen above, 21st-century competences are often described in individualized terms. The PA 1201 course is graded primarily on an individual

¹¹ Initiation, Reply, Evaluation

basis. This makes the concept of individuality problematic for the students, being in a connected environment and a group, and since a common interpretation is that individuality entails not asking too many questions, decision making also becomes problematic and risky. Unsurprisingly, the theme of risk runs through all the articles. In the special context of this thesis, concentrating on student interactions when teachers are physically absent, I claim that the risk concept becomes even more important, this being supported by the fact that the potential risks connected with various actions are part of the dilemmas posed by problematic situations. Prudence becomes part of the students' navigation patterns. The individualized 21st-century learner has to handle considerable uncertainty and is steered in the name of assessment, which leads to the necessity of calculating risks. Being caught between the risk of being assessed as dependent and the risk of not performing optimally makes students vulnerable. Complex work modes, in which various alternatives must be considered, render students uncertain about the best road to academic success. Such work modes force students to develop a certain kind of awareness—risk awareness.

Project work and risk society

This is the point at which complementing framing with a sociocultural risk perspective helps us set the project work in a larger context. Giddens (1990, 2000) and Luhmann (1993) claim that the institutions of late-modern society produce risk and risk awareness; whereas Beck (1992) claims that they create an increased number of real hazards. In sociology, modernity theories, such as the risk society perspective, have been connected with the large changes society has undergone in recent decades. Luhmann (1993) emphasizes the complexity of late-modern society and claims that the need to reduce complexity is an important characteristic of such a risk society. This entails a need for students in a risk society to develop skills and competences for handling complex tasks.

Students are held responsible for how they interpret instructions, while independent work increases the number of decisions students must make. Clearly, a lot is at stake. A consequence of increased decision-making demands is greater exposure to potential risks, which can appear in many forms. To complete their work, students must decide what resources can acceptably be used, what information is an asset, what information indicates

low knowledge of the field, and the value of the various types of information and techniques they can use in their projects

Implementing the student/grade frame and the author frame as analytical tools also means implementing governance and governmentality. The students have to conduct assessments mostly by themselves, in their epistemic communities, since the teachers are usually present only in the form of instructions and other reifications (Wenger, 1998). Self-governance (Foucault, 1987, 1991), another important element of the sociocultural risk perspective, in this way becomes a pillar of self-regulated project work. Self-governance functions internally rather than externally. The individual is placed under a web of surveillance, metaphorically described as a panopticon by Foucault. The situations described in the study contain elements that I argue can be conceived of as such a web. The project work design, locally called the “Project Journey,” is based on the idea of progression. The design allows teachers to follow their students from their first attempts at project work through to their final product in the last term. Demands escalate. Students are taught to keep logs. There is successive tutoring sessions. In accordance with reflections on the connection between self-regulated work and the risk society, project work arguably also functions as a governing rationality. O’Mally (2000) suggests that “uncertainty is a characteristic modality of liberal governance that relies both on a creative constitution of the future with respect to positive and enterprising dispositions of risk taking and on a corresponding stance of reasonable foresight or everyday prudence” (p. 461).

The forces of individualization, the uncertainty and the structural risk built into the system—important parts of a risk society as we have defined it—force the students to govern themselves, using their interpretations of the provided instructions as the main signposts. Experimentation and new thinking can be dangerous. Even the concept of time is affected. The classic classroom organization was also an organization of time in small units separated by pauses and school bells ringing. In the project work, these institutional cornerstones crumble. Project work dissolves the structure of organizational time units into a stream with only a beginning and a time for accounting.

The way grading is carried out, the course plan’s emphasis on the individual student, and the division of the logbooks into individual and collective parts, as well as the emphasis on every student providing an individual analysis, all send clear signals that the kind of literacy to be developed in this mode of work is in essence individual. The assumption that

information literacy is primarily individual, however, is questioned in social and collaborative perspectives on learning. Various writers (e.g., Bruce, 2000; Kapitzke, 2003a,b; Marcum, 2002) advocate a socially distributed, dialogically driven view of information literacy. Rather than being an individual, solitary activity, students' "own work" must be understood as embedded in a collaborative activity in which the students rely on a number of resources.

The increase in less governed forms of work, such as project work or "own work," can also be interpreted as manifesting the transmission of the uncertainty and complexity of modern risk society into the world of education. The increase of self-regulated work can be seen as exemplifying how a global discourse penetrates and imposes itself on a local discourse.

On quality and value

The present type of study, based on individual cases and close analysis, risks ending up in anecdotalism (Silverman, 2000). Cases are always anecdotal in some sense. Larsson (2005) argues that, through awareness of theoretical perspectives and internal consistency, researchers can ensure that informal stories of the research journey counterbalance any fragmentation and anecdotalism in research storylines, in this case, emerging through several articles written over a long time that gradually develop the theoretical framework.

The four constituent articles of this thesis differ in their balance between theoretical and empirical considerations. Articles 1 and 2 use examples from the video-recorded sessions to illustrate concepts such as structure and the connection between structure, learning, and information literacy (in article 1) or independence (in article 2). Empirical data are used primarily to supply examples where more general reasoning, for example, about information literacy and Internet searching, is tied to how such concepts are manifested in a school context of individual projects (in article 1) and how students construct themselves as independent (in article 2). In the first two articles, concepts usually described as individual are contrasted (in how the students relate to these and similar concepts) with the fact that students must work discursively in groups and are supposed to be governed to adapt to a modern information society. The first articles initiate, but do not name, one of the primary frameworks developed in the last article, namely, the student/grade framework.

DISCUSSION AND CONCLUDING REMARKS

The students' work is defined as a collective process, contextual and dependent on their position as graded students completing a school assignment. The need to find coping strategies is emphasized and discussed in the second article in terms of the (in)dependence paradox, a concept developed so as to merge with the student/grade frame in the last article. The positioning developed in the first two articles is thus used in the two more empirical articles 3 and 4.

Articles 3 and 4 are empirically driven. The transcribed and categorized body of video-recorded episodes was searched based on keywords such as "instruction" and "strategic choices," resulting in just over a hundred hits. These results led to the selection of nearly thirty video clips for the third article and about fifty clips for the fourth article that were categorized according to "critical thinking," "source criticism," or a combination of these keywords. The totality of the transcribed and analysed material was searched for patterns, and the results were subject to analysis.

To test for internal consistency, I went back and forth in my material, iteratively testing the applicability of the developed theoretical tools to prior analyses and of the assumptions made in earlier articles to later ones. Reanalysing the situations used in the first article makes it clear that a discussion based on the author and student/grade frame could have helped explain the use of "we" and "they" in the conversation between the two boys studying the industrial revolution. The various road metaphors used in the third article could have strengthened the obvious tension between the approaches the two boys chose to use on the assignment, and a more overt discussion of risk management could have helped in understanding the discussion of why they could not deal with the program-generated comments and reference list. They also displayed critical thinking in connection with the author framework, which fits the matrix developed in the last article. The same is the case with the discussion of anorexia in the first article.

A firmer risk perspective stance could have deepened the discussion in the second article concerning the involuntary visit to a pornographic site, while the road metaphors developed in the third article could have deepened their understanding of the choices open to them.

The road metaphors are easily incorporated into the main frames in the fourth article, and the frames from the fourth article could have deepened the discussion of approaches and road metaphors in the third article.

PROJECT WORK, INDEPENDENCE AND CRITICAL THINKING

Having made this iterative journey back and forth in the analysis, I can claim that there is internal consistency within the overall material. The intention was never to construct a firm framework, valid at all times and in all situations; instead, I hoped that the way I developed tools and concepts could be useful to other researchers examining situations in similar settings.

The iterative journey back and forth in the material identified two of the validity criteria Larson (2005) uses, namely, internal logic and consistency. Internal logic is described as harmony between the research questions, ways of gathering empirical data, and analytical techniques. Quality and validity can also be enhanced by an explicit research journey narrative, which I attempted to create at the beginning of this section. My research process started in another project with a greater emphasis on technique and other questions, and the choice of how to collect empirical data was originally made based on these questions. This direction was abandoned, partly because the students lacked interest in using the program I was to evaluate but mainly because the collected material generated such interesting questions concerning the work form itself. My growing understanding of the field then helped me refine the research questions. Since the questions emanate in this way from the material collected, I claim that there is a natural harmony between the research questions and the methods used.

The aim in structuring this thesis was to make it easy to follow, while incorporating a richness of meaning that gives rise to new meanings and insights. The combination of theoretical approaches and the choice of novel analytical situations should ensure that this aim is fulfilled. Larsson (2005) also talks about perspective awareness and the importance of pre-understanding. He claims that “this pre-understanding is the foundation for the kind of interpretation that will be developed ... [and] the researcher should not withhold his perspective from the reader” (p.18). Throughout the text, I have emphasized clarifying the relationships between the theoretical perspectives and the empirical material, especially how the macro perspective of the risk society came to permeate the analysis. The descriptions should be “thick” enough to validate the conclusions made. The form of the thesis constitutes a problem in this respect, since the summarizing text must be condensed, though the appended articles should provide substantial richness. The aim throughout the writing has been both to contribute new perspectives on research into project work, and to produce something useful to practitioners—the latter being what Larsson calls the pragmatic criterion. The emphasis on

risk, the problematization of independence, the recontextualization of critical thinking, and the described road metaphors are findings that will likely prove useful.

Having learned something on examining project work

That the students participating in my study were extremely high achievers is indicated by the marks required for admission into the special program attended. It is attested to by the vast networks of academically skilled resource people in the form of friends and relatives who make their presence felt in the students' interactions. It is also evidenced by the high grades received, 86% of the students passing with distinction or special distinction. This level of participant ability could have influenced my results in several ways.

As the subjects were high achievers, the dilemmas used as starting points for the constituent articles of this thesis are highly contextualized. I do not know whether other groups would take on the challenges in similar ways or whether completely different matters would give rise to dilemmas in a group of "less-high-achieving" students. As generally high achievers, the students examined here might be better prepared to manage the difficulties connected with this mode of work. On the other hand, the fact that the subjects were high achievers, well integrated into the educational system, could also imply that their striving for the highest possible marks would make them especially aware of the potential risks connected to their choices, making risk an over-emphasized concept in my analysis. The connection between striving for the highest grades and stress and health-related problems justifies arguing in that direction.

I have previously mentioned that the articles forming the basis of this thesis can be seen as cases forming a whole. The use of cases always yields context-dependent knowledge, as does all really in-depth research into real educational situations. Flyvbjerg (2006) claims that "in the study of human affairs, there appears to exist only context-dependent knowledge" (p. 221), something that does not diminish the value of this kind of study. In the present cases, I try to illustrate how the activities examined in previous research are expressed in the particular examined context. Concentrating on certain aspects of the project work mode fills gaps in earlier research. Although the student group studied here can be considered special, their

situation is quite ordinary. In all Swedish secondary schools, and most primary schools, students struggle to complete projects and are supposed to manage the project process largely without direct teacher aid. Larsson (2009) talks about generalization through context similarity, and I hope that the present approach to the project interaction can provide guidance when examining schools with different structures and different student groups.

The results

This thesis closes in on project work from several directions since the articles are based on various problematic situations giving rise to different dilemmas.

One main contribution is the emphasis on the absent teacher. The importance of the teacher in project work is well established in previous research, as is the problem of the student–teacher distance that often arises in project work. Choosing to look only at situations in which students must manage by themselves illuminates certain practical consequences of the setting. Examples of such consequences are the students' unwillingness to go to the teacher and ask questions, their increased concentration on and interpretation of written instructions, and the observed strategic interaction among them. I hope that these findings will help teachers plan and execute projects, a work form essential to modern information society.

My two frameworks, the student/grade frame and the author frame, provide new tools for analysing how students work. The discrepancies between the learning goals declared in curricula and course plans and what students actually do is nothing new. I have discussed several other ways of referring to this, such as “playing the classroom game” (Lemke, 1990), “doing school” (Pope, 2003), and “doing the lesson” (Jimenez-Alexandre et al., 2000). My student/grade frame obviously recalls such descriptions of student strategies, but is less coercive. The other frame, the author frame, is new; it encompasses students who actually do go beyond focusing on the assessment, instead concentrating on the content and on creating something meaningful. This frame is connected with work of high quality, an aspect that ought to be taken into account in a discourse in which Swedish schools, in a post-Pisa shock, are described as in freefall.

Using the two intertwined frames and demonstrating how the students alternate between them, emphasizing first one and then the other, adds something to the description of being a student. By showing students who are

concerned with quality, have the potential to consider their situations, and can make relevant strategic decisions, the dystopian image of the Swedish school is somewhat ameliorated. A fear on my part is that the concentration on poor Pisa results and an emphasis on control and early grading could diminish these capacities.

The elaboration of Miller and Parlett's (1974) discussion of student approaches to cues is another matter that merits further development. The fact that there seemed to be no cue-deaf students in my material is exciting, as is the new approach to cue-choosing students, especially in light of a modernity theory such as sociocultural risk theory.

The road metaphors and the descriptions of the various identified approaches remain to be tested. By describing four ways of acting in relation to tasks and instructions, I have created concepts that can help both teachers and researchers in analytical work, by labelling certain observed approaches. A discussion of the connection between these approaches and their consequences for learning and for society should be developed in further research.

One goal, developed in the last article, was to look at the concept of critical thinking in project work. This is especially important given that this work mode was inserted into the curriculum partly to develop student ability to think critically. The two words forming the concept of critical thinking can be read with different emphases. Read as critical *thinking*, the concept can be aligned with what Lai (2011) calls a "cognitive psychological approach." This approach often defines critical thinking by drafting a list of skills or procedures performed by critical thinkers, focusing on how people actually think versus how they could or should think. If the emphasis is on the first word, *critical* thinking, the concept changes, instead aiming at finding weaknesses in arguments and assertions. If both words are equally emphasized, *critical thinking*, the concept is again reoriented, becoming the elusive concept emphasized in philosophy and education. Such critical thinking is a way of seeing that at the same time incorporates the three above emphases, describing something new and unique.

From my point of view, a problem with the philosophical approach is its emphasis on critical thinking as something pure, as an ideal. A definition like that of Ennis (1985), emphasizing reflection and reasoning in order to decide what to believe, tends toward some kind of truth at the same time as it describes a practical activity. I have called this a classical definition, but it

PROJECT WORK, INDEPENDENCE AND CRITICAL THINKING

could also be called an idealistic definition. My way of closing in on the concept of critical thinking is to take another stand and regard it as a practical activity with goal rationality.

If looked on that way, critical thinking becomes somewhat less idealistic. It is still a way of thinking that is rational and honest in relation to what supports and what critiques my reasoning. However, this must be seen in relation to the goal of the activity, which can be more or less scientific, academic, and idealistic.

Critical thinking, in that sense, is connected with problem solving, and the goal setting accordingly defines how the critical thinking will be designed. Problem solving becomes a bridge between framing and critical thinking. The framing defines the problem, which is always related to a goal, and how to solve the problem and reach the goal also becomes part of the answer to the question “What’s going on?” When the students are put in situations like those described here, such a way of looking at critical thinking becomes rational. I hope that this contextualization of critical thinking and its alignment with perspectives on risk will enrich the educational approach to critical thinking.

One contribution of this thesis is that of adding the notion of risk to the concepts to be considered when analysing and attempting to understand the project as a mode of work. The notion of risk is essential for the other results described. Of course, the risk concept is important in all analyses taking account of the special situation of being assessed and graded. This in itself is nothing new; it is inherent in the work of Miller and Parlett (1974), Becker et al. (1995), and others who have discussed the equivalent of a student frame. However, seeking signs of risk awareness and assessment focus as means of understanding why the framing turns out in a particular way was productive for my understanding. If the capacity to do project work, as often claimed, is essential for the citizens of 21st-century information society, and this society can be understood as an individualized risk society, risk should be considered when talking about projects. In this text, I go beyond this and conclude that developing competence in projects and other individualized work forms increases students’ uncertainty and thus risk awareness. This can be seen both as the spread of risk society into educational settings and as a strategy for preparing students for that society. For me, it became possible to understand project work, independence, and critical thinking only with the aid of concepts such as risk and uncertainty.

Summary in Swedish

Projektarbete, självständighet och kritiskt tänkande

Detta är en avhandling om hur elever ”gör” projektarbete inom ramen för gymnasieskolans projektarbetskurs. Genom att fokusera elevernas arbete när läraren inte är fysiskt närvarande kommer frågor relaterade till vad det innebär att genomföra projekt som självständiga, kritiska medborgare i det 21:a århundradet att diskuteras.

Projekt och individualiserad undervisning har blivit en del av den mediala och politiska diskursen kring det svenska utbildningssystemet där försvararna av arbetsformen pekar på att kompetensen att verka i projekt är en del av de ”21:a århundradets kompetenser” som skolan måste utveckla för att förbereda eleverna för det samhälle de skall verka i. De som är kritiska mot arbetsformen argumenterar för att utvecklingen mot mer individuella arbetsformer är en av förklaringarna till den svenska skolans vikande resultat i internationella kunskapsmätningar som PISA och TIMMS. Politiskt har det framförts krav på en återgång till mer katederundervisning för att rätta till skolans problem.

Ramen för avhandlingen utgörs av kursen projektarbete (PA 1201. 100p) som infördes 2000. De sista som slutförde denna kurs gjorde det våren 2013. I den nu gällande läroplanen (GY11) är projektarbetskursen ersatt av det så kallade gymnasiearbetet som är hårdare knutet till de olika programmens profil.

När kursen PA1201 sjösattes låg tonvikten på förmågan att genomföra ett projekt, att ta ansvar för planering, organisering och genomförande över en längre tidsperiod. Eleverna skulle producera en produkt (teoretisk eller praktisk). Vid bedömning av projektet skulle processen och produkten tillmätas lika stort värde (Skolverket, 2001). Förmågor som självständighet, ansvarstagande, självstyrning nämns som delar av det som skall bedömas och betygsättas i den aktuella kursen (Skolverket 2000).

Stora delar av ett projekt genomförs av eleverna när läraren inte är fysiskt närvarande och där lärare ger instruktioner i början av projektet och handleder

under det och där eleverna genomför arbetet, enskilt eller i grupp. Det empiriska materialet för denna avhandling samlades in under just de delar av projektet när elever tillhörande N och S programmet vid en gymnasieskola arbetade självständigt i grupp utan att läraren var där.

Materialet består av ca 60 timmar filmad gruppinteraktion insamlat under en period av tre år. Sammanlagt 35 grupper om två eller tre personer filmades under perioden. Skolan där materialet samlades in bedrev ett utvecklingsprojekt som kallades för ”Projektresan” där eleverna succesivt skulle skolas in i vad det innebär att genomföra ett projekt.

Det fokus som jag har valt, hur eleverna gör när läraren inte är närvarande, är inte lika väl beforskat som lärare–elevrelationer eller arbetsformens inverkan på läranderesultatet, varför denna studie bidrar till att fylla en kunskapslucka.

Avhandlingens syfte

Syftet med avhandlingen är att studera och diskutera elevers handlingar i ett projektarbete. Analysen syftar till att förstå de olika avvägningar och beslut som blir viktiga för elever när de hanterar olika former av dilemman¹² i en självreglerad projektarbetskurs på gymnasiet. Fokus ligger på interaktionen mellan eleverna och vilka handlingsvägar de väljer. Av speciellt intresse är hur eleverna tolkar vad som är av betydelse i situationen (framing).

I avhandlingen diskuterar jag hanteringen av dilemmasituationer i förhållande till tre olika nivåer. Den första direkt knuten till vad som framstår som dilemman vid arbete i specifika projekt och hur dessa dilemman löses. Den andra nivån berör hur de speciella krav och bedömningskriterier som kan knytas till projektarbetsformen, som att vara självständig och kritisk, påverkar hur dilemman upplevs och löses upp och vilka resurser som kommer till användning. Den tredje nivån diskuterar om och i så fall hur osäkerhet och risk kan kopplas samman med inramningsbegreppet och därmed erbjuda en djupare förståelse av villkoren för att arbeta i ett projektarbete

Projektarbete i det 21a århundradet

Det äldsta sättet att se på projekt i en utbildningskontext är som ett realistiskt gesällprov där de studerande erbjöds en möjlighet att visa att de tagit till sig de

¹² Dilemman definierade som situationer där eleverna behöver väga olika alternativ mot varandra.

nödvändiga kompetenserna för att kunna verka som professionella (Knoll, 1977). Diskursen kring projektet som en avslutning fanns med i bakgrundsmaterialet när projektarbetskursen sjuösattes 2001 (Skolverket, 2001), precis som två andra diskurser, kort beskrivna nedan.

Ett annat sätt att tala om och se på projektet kopplas ofta samman med den amerikanska progressivismen. Projektet sågs som ett sätt att förankra lärandet i realistiska aktiviteter, vilket skulle göra lärandet mer autentiskt.

En tredje diskurs i förhållande till projektet handlar om att arbetsformen är anpassad till det som krävs i ett modernt samhälle. De kompetenser som krävs för ett väl genomfört projektarbete är de samma som krävs för att kunna bli framgångsrik i ett modernt kunskapssamhälle, varför det också är rimligt att diskutera projektarbetet som en gymnasiekurs i ljuset av beskrivningar av det senmoderna samhället med dess betoningar på individualisering, personliga lösningar och personligt ansvar.

Den svenska kontexten

Ett grundantagande i denna studie bygger på tankegången om en dubbel dialogicitet (Linell, 2009); eleverna måste verka både i situationen och i en specifik socio-historisk kontext. En del trender inom svensk utbildning fungerar som en viktig bakgrund för att kunna spegla denna socio-historiska kontext.

I svensk skola kan man se en trend mot ökad individualisering och valfrihet under de senaste decennierna. Antalet friskolor har ökat med över 30 % sedan början av 2000-talet. Under samma period har antalet kommunala skolor knappt vuxit alls (Alexandersson, 2011).

Individualiseringen är också synlig inom undervisningen. Granström (2003) pekar på hur den individualiserade undervisningen har ökat starkt sedan 60-talet. Carlgren med flera (2006) talar om en neo-liberal individualitet där begreppet individualisering ramas in av idéer om tävlan och val i ett samhälle för den enskilda. Söderström (2006) diskuterar ansvarstagande som en styrningsrationalitet i en skola som avlägsnat sig från mer traditionella styrningsformer. Röster har varnat för att den starka individualiseringen utgör såväl ett jämlikhetsproblem (Eriksson, 2009) som ett demokratiproblem (Biesta, 2006).

Tecken på en sådan individualisering syns i den pågående reformeringen av den svenska gymnasieskolan, med dess starka separation mellan

studieförberedande och yrkesförberedande program. Den tidigare ambitionen att alla elever i gymnasieskolan skulle förberedas för vidare studier är inte längre ett prioriterat mål. Både kraven på att välja rätt skola och rätt program innebär en ökande press på eleverna att fatta beslut som kan få mycket stora konsekvenser för deras framtida liv.

Forskning kring projektarbeten har resulterat i flera artiklar och avhandlingar under senare år. Lilja (2012) studerade samarbetet mellan lärare och elev och understryker behovet läraren som en aktivt involverad part i enlighet med Deweys ursprungliga kritik av Kilpatrick (Dewey, 1918). Samma betoning på behovet av samarbete mellan lärare och elev kan också hittas i Lundhs (2011) och Boströms (2011) arbeten.

Nilsson (2002, 2004) diskuterar elevers ”forskning” i grundskolan. Hans huvudsakliga intresse var resultatet av processen i form av texter, men han identifierar också olika sätt att förstå processen. Nilsson använder några teoretiskt viktiga begrepp. Från ett dialogiskt perspektiv förankrar han olika språkliga iakttagelser i ett specifikt sammanhang och använder talakter och åtgärdstyper för att utveckla en förståelse för forskningsprocessen. Han visar hur detta kan relateras till begreppet genre (Bakhtin, 1981; Swales, 2004) och Goffmans (1981) begrepp fotarbete (footing). Nilssons slutsats är att ökningen av mängden individuellt arbete, där ”elevforskning” utgör en del, kan förklaras med den ökande heterogeniseringen och därmed behovet av ökad individualisering i skolan. Han betonar också att lärare och elever inte verkar ha samma mål med forskningsuppgifterna; i enlighet med hur jag resonerar i denna avhandling kan man hävda att deras inramningar ser annorlunda ut.

Österlind hävdar, med hjälp av Bourdieus begrepp habitus (Österlind, 1998, 2005, 2010; Österlind & Sörling, 2006) att elevernas eget arbete ger frihet för dem med en uppfostran som passar ett sådant värdesystem (Österlind talar om tjänstemannavärderingar), men också innebär ett ökat tryck.

Studier av Dovemark (2004) och Beach och Dovemark (2009) betonar att omvandlingen av traditionell skolpraxis till mer individualiserade former måste ses som en del av en större samhälllig förändring och att denna samhällsomvandling ger olika meningserbjudanden till eleverna beroende på deras ursprung och habitus.

Söderström (2006) hävdar att när eleverna tar eget ansvar för sitt arbete så används krav från det senmoderna samhället som en lins. Hon beskriver

strävan efter individualitet som ett uttryck för den dominerande klassens ideologi och betonar att begreppet ”ta ansvar” blir en styrningsrationalitet för skolan som lösgör sig från traditionella former av styrning i skolan

Alla dessa studier pekar mot behovet av att kontextualisera projektarbetet också på en samhällslevellelig nivå, vilket jag försöker göra i denna avhandling genom att diskutera projektarbetet med hjälp av ett risksamhälle perspektiv.

Självständighet, bedömning och kritiskt tänkande

Att vara inbegripna i en så komplex arbetsform som projektarbete, som innefattar hela processen från planering och insamling till färdigställande av en produkt med ”relativt lite” lärarstöd, gör det svårt för eleverna att bedöma hur pass väl de lyckas, innan betyget på arbetet sätts. Det är många parametrar i processen där man måste förhålla sig till en eventuell bedömning och de bedömningskriterier som finns.

Becker, Geer och Hughes (1995) menar att studenterna använder ”grade point average” som det viktigaste kriteriet för akademisk framgång. De hävdar att bevis på framgång i studierna främst manifesteras i betyg, och att denna förståelse leder eleverna mer än något annat.

I en svensk kontext är kanske inte själva medelbetyget lika betydelsefullt som i den amerikanska kontext Becker med flera beskriver, men även här är uppnåendet av höga betyg och ett högt betygsmedelvärde av stor betydelse för framtida studier. Detta blir extra betydelsefullt i ett samhälle där ett studentbetyg inte längre är en garanti för en ljus framtid, men där ett ”misslyckande” på gymnasiet effektivt stänger många framtidsvägar (Alexandersson, 2011; Lindblad, 2005).

Med Goffman’s termer kan man hävda att ”grade point average”-perspektivet fungerar som ett ramverk för att bestämma vad som är relevant för lyckade studier. Att välja rätt approach till lärare och bedömningar är viktiga delar av det inramningsarbete som kan leda till ett lyckat resultat med studierna (Miller & Parlett, 1974). Säljö med flera (2011) betonar att elevernas förståelse av bedömningen påverkar deras arbete långt innan de faktiskt skall bedömmas, och Lilja (2012) drar slutsatsen att ”betydelsen av dokumentation och bedömning verkar vara ett underexploaterat tema i litteraturen om projektarbete och progressivism” (s. 34).

Ett begrepp som nästan alltid kopplas samman med projektarbetsformen är kritiskt tänkande. Begreppet som sådant är brett och komplext och som sådant föremål för många olika typer av diskussioner, som begreppets filosofiska rötter eller hur man bäst bygger en praktik som gynnar det kritiska tänkandet.

Ett vanligt sätt att förhålla sig till begreppet kritiskt tänkande är att dela upp det i förmågor (till exempel förmågan att analysera argument) och förhållningssätt (till exempel viljan att vara korrekt). Den typen av uppdelningar bygger ofta på Ennis (1985) beskrivning av det kritiska tänkandet. Eftersom diskussionen om bristerna i det kritiska tänkandet hos svenska elever ofta utgår från liknande definitioner valde jag att i inledningsskedet utgå från en modifierad version av Ennis definition. Versionen är modifierad i den bemärkelsen att den utgår från det kritiska tänkandet som en kollektiv praktik som eleverna i grupper utvecklar tillsammans. I artikel 4 beskrivs det på följande sätt: “what students do together to analyze, deliberate on, and evaluate based on a desire to be as accurate and truthful as possible” (Eklöf, 2013). Definitionen användes sedan för att försöka identifiera kritiskt tänkande genom elevernas interaktion. I slutdiskussionen diskuteras användbarheten av den modifierade definitionen. Valet görs att i stället diskutera kritiskt tänkande som ett mer kontextualiserat begrepp, till stora delar styrt av att eleverna befinner sig i en bedömningssituation.

Teoretiskt ramverk

Goffman (1974/1986) erbjuder ett sätt att analysera interaktion med sin ramverksteori. Enligt Goffman kan vi inte se på handlingar och uttalanden som stående för sig själva, de behöver en inramning för att ge mening. Begreppet inramning innebär att deltagarna tolkar och gör en definition av situationen, men också att vi sällan är helt fria att göra denna inramning, utan att den oftast sker i enlighet med mönster vi brukar använda i liknande situationer. Ett ramverk kan sägas ge svar på frågan: Hur skall vi förstå vad det är som händer här?

En del av analysen blir därför att försöka blottlägga de regler som styr hur eleverna uppfattar och skapar mening i de situationer de befinner sig i. I arbetet har jag laborerat med två grundläggande ramverk, ett som kallas för författarramverket (author frame) och ett som har benämnts elev/betygs-

ramverket (student grade/frame). Kortfattat kan det beskrivas som att författar- ramverket besvarar frågan om vad som pågår med att det handlar om att producera en text som är så tillförlitlig, välkontrollerad och välskriven som möjligt, medan elev/betygsramverket antyder att det primära fokuset är att lägga fram något som sedan skall bli bedömt efter specifika bedömningskriterier. I artiklarna hävdar jag att dessa två ramverk påverkar beslutsfattandet i nästan alla dilemmasituationer.

Bägge dessa olika inramningar kan förstås som sociala ramverk, något som Goffman definierar som att de inbegriper målsättningar och kontroll från en annan intelligens eller aktör. För eleverna finns alltid en sådan i bakgrunden, läraren, detta trots att läraren som fysisk person inte finns med i de situationer som analyseras.

Biesta (2002) hävdar att gå in i en undervisningssituation alltid är förknippat med risk. Lärandeupplevelsen är inte alltid behaglig och smidig. Lärandeprocessen kan aldrig garantera resultat. Lärande innebär att hantera frågor som förändrar. Lärandeprocessen är komplex eftersom det inte finns någon linearitet mellan input och output och att maktrelationerna alltid är asymmetriska. Jag har valt att lägga föreställningar om risk och osäkerhet som det diskuteras inom socio-kulturell riskteori som ett kompletterande teoretiskt perspektiv tillsammans med Goffmans ramverksanalys.

Makroorienterade beskrivningar av ett risksamhälle hos till exempel Luhmann, Beck och Giddens använder termer som individualisering, avtraditionalisering, komplexitet, osäkerhet, personligt ansvarstagande och riskbedömningar för att beskriva det senmoderna samhället. Hos Foucault (1991) kopplas risk ihop med de självdisciplinerande krafter som styr genom egenbegräsningar snarare än yttre tryck. I denna avhandling förs diskussionen i första hand med utgångspunkt i risksamhällestraditionen med vissa kopplingar till Foucaults governmentality- perspektiv.

I det senmoderna risksamhället är eleverna inte bara tvingade att följa instruktioner, de skall också göra det på ett sådant sätt att de uppvisar självständighet och originalitet. Det är höga krav att ställa och dessa höga krav visar sig i det empiriska materialet som överväganden kring potentiella konsekvenser av val man måste genomföra. Att hantera risker transformeras på detta sätt till en mänsklig skyldighet snarare än ett resultat av yttre krafter eller ödet. Att göra riskbedömningar blir en individuell försäkring gentemot negativa konsekvenser av de val som måste göras och enligt Luhmann kan

risker minimeras genom att man reducerar komplexiteten i den uppgift man har framför sig.

Risksamhälle-perspektivet tillför ytterligare ett lager och säger något om hur ett makroproblem blir ett mikroproblem när den enskilde måste hantera risk i det dagliga livet (Hancock & Garner, 2011). Kombinationen av dessa perspektiv ger redskap för att diskutera de inramningar som görs, som påverkade av osäkerhet och risk. Detta gör det möjligt att diskutera projektarbete inte bara som en metod utan också som en del av en trend vilket skapar förutsättningar för en annan typ av förståelse.

Mina resultat

Avhandlingen närmar sig projektarbete från flera håll eftersom artiklarna är baserade på olika problematiska situationer som bildar olika dilemman.

Ett bidrag är diskussionen kring betydelsen av den frånvarande läraren och problemet med avståndet mellan elev och lärare, som ofta är en följd av projektarbeten. Exempel på detta är elevernas ovilja att gå till läraren och fråga eftersom detta kan påverka bedömningen av självständighet, den ökade koncentrationen på och tolkning av skriftliga instruktioner och en strategisk interaktion mellan eleverna i syfte att göra rätt val i förhållande till hur man tror att bedömningen kommer att påverkas av formuleringar eller av vem som skall göra bedömningarna. Detta kommer förhoppningsvis att vara rön som hjälper lärarna i planering och genomförande av projekt, inte minst när det gäller att kommunicera ramar och förutsättningar för projektet.

Mina två grundläggande ramverk, författarramverket (author frame) och elev/betygsramverket (student grade/frame) erbjuder nya verktyg vid analys av hur eleverna arbetar. Att det finns avvikelser mellan deklarerade kunskapsmål i läroplaner och kursplaner och vad eleverna faktiskt gör är inget nytt. Jag har diskuterat flera andra sätt att beskriva detta, som "playing the classroom game" (Lemke, 1990), "doing school" (Pope, 2003) och "doing the lesson" (Jimenez - Alexandre et al, 2000). Min elev/betygsram har uppenbara likheter med tidigare beskrivningar av elevstrategier, men är mindre tvingande. Hos mina elever är det inte den helt dominerande inramningen som hos Becker, Geer och Huges (1995). Den andra ramen, författarramen, beskriver elever som faktiskt går utöver att fokusera på bedömning, att de kan koncentrera sig på och fångas av innehållet och uppvisa en vilja att skriva något är betydelsefullt för dem, en vilja att skapa något nytt.

Beskrivningen av de två ramarna som sammanflätade och hur eleverna går fram och tillbaka mellan dem, betonande den ena och den andra, är viktiga för beskrivningen av att vara elev. Genom att visa elever som är både intresserade av kvalitet, har potential att fundera över sin situation och göra relevanta strategiska bedömningar, blir den dystopiska bilden av den svenska skolan åtminstone något modifierad.

Utvecklingen av Miller och Parletts (1974) diskussion om studentens förhållningssätt till ledtrådar är ett fynd som behöver diskuteras vidare. Det faktum att det inte verkar finnas några ledtråds-döva elever i mitt material och den nya kategorin på ledtråds-väljare (cue-choosers) är spännande, särskilt mot bakgrund av en modernitetsteori som riskteori. Mina resultat kan tolkas som att dagens elever gör den bedömningen att det inte längre räcker att bara jobba på, man måste vara strategisk också.

I det empiriska materialet identifierades fyra olika sätt att agera i förhållande till uppgiften och de instruktioner som givits:

- "*Huvudleden*" beskriver de elever som försöker se bakom instruktionen och förstå andemeningen bakom en given instruktion för att kunna arbeta i enlighet med denna.
- "*Att fixa till vägen*" beskriver ett mer instrumentalistiskt förhållningssätt där eleverna gör små förändringar i sitt material för att det skall passa ihop med instruktionerna.
- "*Att kräka vägen*" visar elever som genom sitt agerande försöker ge sken av att de har följt instruktionerna även när de är medvetna om att de inte har gjort så.
- "*Omvägen*" ramar in de få tillfällen där eleverna väljer att ta risken att inte följa en instruktion på grund av en rationell kalkyl. De argumenterar för att den väg de valt har tillfört en kvalitet som skulle gå förlorad om de valde en mer instrumentalistisk approach.

Genom de olika väg-metaforerna har jag skapat begrepp som kan hjälpa både lärare och forskare i det analytiska arbetet, genom att ge namn åt några observerade metoder.

Ett mål, som utvecklats i den sista artikeln, var att se på begreppet kritiskt tänkande i projektarbetet. Detta är särskilt viktigt eftersom projektkursen infördes på gymnasieskolan delvis för att ytterligare utveckla förmågan till kritiskt tänkande. Min ambition har varit att se på kritiskt tänkande som ett sätt att *se* som inbegriper olika sätt att förstå begreppet och därmed beskriver något nytt och unikt.

Från min synvinkel är ett problem med det filosofiska synsättet betoningen på kritiskt tänkande som något rent, ett ideal. Definitioner som Ennis' som betonar på reflektion och resonemang för att bestämma vad man ska tro, pekar också mot att det finns något slags "sanning". Samtidigt beskrivs kritiskt tänkande som en praktisk verksamhet. I denna text kallar jag det för en klassisk definition, men det skulle också kunna kallas en idealistisk definition. Mitt sätt att försöka närma mig begreppet kritiskt tänkande är att ta en annan utgångspunkt och se det som en praktisk verksamhet som har en målrationalitet.

På det sättet blir kritiskt tänkande något mindre idealistiskt. Det är också ett sätt att tänka som är rationellt och ärligt i relation till vad som stödjer eller motverkar ens argument. Men detta måste ses i relation till hur en deltagare inramar och förstår målet för den verksamhet hen deltar i (vad är det som händer här?).

Kritiskt tänkande, i den meningen, är kopplat till problemlösning och hur situationen ramar in definierar hur det kritiska tänkandet kommer att formas. Problemlösning blir en bro mellan inramning och kritiskt tänkande. Inramning definierar problemet, problemet är alltid relaterat till ett mål och svaret på hur man ska lösa problemet och nå målet blir också en del av svaret på frågan om "vad som händer". När eleverna sätts i situationer liknande dem som beskrivs i denna avhandling, blir ett sådant sätt att se på kritiskt tänkande ett rationellt sätt att vara en kritisk tänkare. Denna kontextualisering av kritiskt tänkande och anpassning till perspektiv på risk, hoppas jag kommer att berika ett pedagogiskt förhållningssätt till kritiskt tänkande.

Ett bidrag i denna text är att lägga till begreppet risk bland de begrepp som skall beaktas när man analyserar och försöker förstå projektet som ett sätt att arbeta. Begreppet risk är avgörande för de övriga resultat som beskrivs. Naturligtvis är riskbegreppet viktigt i all analys där den speciella situation vari elever bedöms och betygsätts tas med i beräkningen.

Att vara uppmärksam på uttryck för riskmedvetenhet och bedömningsfokus för att förstå varför elevernas inramningsarbete utfaller på ett visst sätt var produktivt för min förståelse. Om kapaciteten för att göra projektarbetet, som ofta påstås, är en viktig kvalitet för medborgarna i 21:a århundradets informations samhälle, och detta samhälle kan förstås som ett individualiserat risksamhället, är risken något som behöver beaktas när man talar om projekt. I denna text går jag längre än så, och drar slutsatsen att strävan efter att utveckla projektkompetens och individualiserade arbetsformer är något som ökar

elevernas osäkerhet och därmed riskmedvetenhet. Detta kan ses både som spridningen av risksamhället till utbildningsmiljöer och som en strategi för att förbereda eleverna för detta samhälle. För mig blev det möjligt att förstå projektarbete, självständighet och kritiskt tänkande endast med hjälp av begrepp som risk och osäkerhet.

Att gå vidare

När jag har diskuterat och redovisat mina studier och slutsatser, framför allt med aktivt skolfolk har frågan ofta kommit upp vad det är för elever som har ingått i undersökningen. Jag har hela tiden svarat att det är mycket högpresterande elever, med höga betyg, goda nätverk antagna till en prestigeutbildning. Frågan kommer då om jag skulle få samma resultat om jag tittade på andra elevgrupper, kanske på mer yrkesinriktade program.

Två scenarion är möjliga. Att de eleverna jag studerar är högpresterande kan innebära att de är extra medvetna om risker och riskbedömningar eftersom de höga betygen är så betydelsefulla för dem, vilket skulle kunna innebära att jag överbetonar betydelsen av risk. Å andra sidan så skulle man kunna hävda att trots att eleverna i denna studie är så högpresterande så spelar risk och riskbedömningar en central roll. Om några skulle kunna känna sig friare och mer säkra på sin egen förmåga kanske det skulle vara just dessa elever. Jag hoppas dock att mina tankar om riskens betydelse för det enskilda arbetet testas i andra grupperingar på andra skolor och andra linjer. Speciellt intressant blir det nu när man i det nya gymnasiearbetet har tagit bort de graderade betygen. Kommer det innebära att det blir lättare för eleverna att förskjuta balansen mellan de två dominerande ramverken i riktning mot en författarinramning i stället för mot elev/betygsinramning?

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