What and How Students Perceive They Learn When Doing Mini-Companies in Upper Secondary School

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ABSTRACT

The aim of this study is to gain more in-depth knowledge and understanding into what Swedish upper secondary school students perceive they learn, and the factors that students perceive affect learning, when they start and run mini-companies within the Junior Achievement Company Program. The data is comprised of interviews with eleven students each of whom ran a mini-company with other students. Situated learning theory, experiential learning theory and Mezirow's theories on reflection on learning were used to analyze and further understand the data.

The results reveal that the students talk about, and appear to convey, equal importance upon learning general skills as learning business skills when doing their mini-companies. Students describe using general skills they improved while running their mini-companies in other school activities and non-school activities leading to better performance in these activities. Doing business activities triggers learning and provides students with an opportunity to further develop, and learn multiple aspects of skills.

Students identify many factors, such as time, autonomy, assessment, and deadlines, which they associate with their mini-companies. On the whole, they say these factors have a positive effect on learning both business and general skills however some factors can also inhibit learning. An analysis of all the factors students identified reveals that they originate, or are influenced by, multiple contexts such as school, the Swedish Junior Achievement organization, and the business environment. Together these factors can be said to create a special school community of practice for their mini-company project. Students point out significant differences between their mini-company project, and other school projects they have previously done, thus providing valuable insight into the importance of project design in relation to learning skills and possible pedagogical implications regarding learning general skills in other school projects.

Key Words

Junior Achievement Company Program, Junior Achievement Young Enterprise, Mini-company, Student Company, Entrepreneurship, Entrepreneurship Education, Entrepreneurial Learning, Upper Secondary School, High School, Reflection, Skills, Competencies.

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INTRODUCTION

Due to changes in technology, trade, production, and communication, there has been a growing movement among international government organizations to promote entrepreneurship education in schools and universities (Gibb, 2007; Mahieu, 2006). The main goal of entrepreneurship in Europe has traditionally been to promote the start of new businesses as means of combating insufficient economic growth, increased international competition and high unemployment (European Commission, 1999). However, learning skills to help develop individuals for all endeavors in life has become a more general goal of entrepreneurship education (European Commission, 2010; European Parliament, 2013; Gibb, 2002). In 1999, the European Commission endorsed the *Action Plan to Promote Entrepreneurship and Competitiveness* that suggests that schools start to educate students in entrepreneurship skills in primary and secondary education (European Commission, 1999). In 2006, a sense of initiative and entrepreneurship became one of the eight key learning competencies recommended by the European Parliament (European Union, 2006). This has been followed by a multitude of similar policy papers and reports by the European Commission supporting entrepreneurship education (European Commission, 2010; European Parliament, 2013; EuropeanCommission/EACEA/Eurydice, 2016). This continued promotion of entrepreneurship education on a supranational level has resulted in the introduction of entrepreneurship in educational curriculum and practice on a national level in Europe (EuropeanCommission/EACEA/Eurydice, 2016).

In Sweden, various government bills, propositions and reports in the mid-1990s emphasized the importance of entrepreneurship education as one means of stimulating economic growth (Mahieu, 2006). The National Agency of Education and the Swedish Agency for Economic and Regional Growth (NUTEK) were given the task by the Swedish government, to help promote education for entrepreneurship. In 2011, the *Curriculum for the Upper Secondary School* introduced learning entrepreneurial skills such as creativity, self-confidence, taking initiative and responsibility and being able to work independently and

with others as a task for all schools (Skolverket, 2013)[1]. The *Curriculum for the Upper Secondary School* of 2011 states that promoting "entrepreneurship, enterprise and innovative thinking" will increase "opportunities for students to start and run a business" (Skolverket, 2013, p. 6)[2]. However it also emphasizes that students need to develop entrepreneurial skills for work, society, and further studies (Skolverket, 2013). Learning entrepreneurial skills in school for all aspects of life is also a view voiced increasingly by Swedish scholars within the field of entrepreneurial learning (Falk-Lundqvist, Hallberg, Leffler, & Svedberg, 2011; Lundqvist, Hallberg, Leffler, & Svedberg, 2014; Norberg, 2016a).

Despite a marked increase in entrepreneurship and enterprise education in schools and non-governmental organizations in Europe (EuropeanCommission/EACEA/Eurydice, 2016), most research on entrepreneurship education is focused on higher education while research in primary and secondary schools is limited (Johansen & Schanke, 2013). Elert, Andersson and Wennberg (2015) surmise that the lack of studies on entrepreneurship education programs in primary and secondary schools make it difficult to "infer which skills such programs may foster and to identify mechanisms facilitating the accumulation of entrepreneurial skills." (p. 2). Most of the Swedish literature that investigates and promotes pedagogical methods for learning general skills (often referred to as entrepreneurial learning) in compulsory and secondary school do not focus on entrepreneurship in the form of starting and running a business but rather on all forms of pedagogical practice (Falk-Lundqvist et al., 2011; Leffler, 2008; Lundqvist et al., 2014; Norberg, Leffler, & From, 2015). This study investigates students' learning when starting and running a mini-

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[1] This study uses the English translation of the upper secondary school curriculum of 2011 called *Curriculum for the Upper Secondary School* which was published 2013. This translation only includes the first two chapters of the upper secondary school curriculum of 2011. Other information in English about Swedish upper secondary school and its programs is found in another document called *Upper Secondary School 2011* published 2012.

[2] The term upper secondary school in Sweden refers to voluntary school that students can attend after completing compulsory school. It consists mainly of eighteen national programs each of which lasts three years (Skolverket, 2016)

company as a school project run by the non-government organization Junior Achievement Sweden.

According to the Eurydice Report, *Entrepreneurship Education at School in Europe* (2016), "The most widespread examples of practical entrepreneurial experience are the creation of mini- or junior companies and project-based work" (p. 13). The report goes on to state that external partners are "a key element" when students start such mini-companies naming the non-profit organization Junior Achievement as an example of such an external partner (EuropeanCommission/EACEA/Eurydice, 2016, p. 13). Junior Achievement Sweden (JA Sweden) helps schools run the Junior Achievement Company Program (JA Company Program) which gives students the opportunity to start and run a mini-company during one school year. The JA Company Program is done by a large number of students in both Sweden, Europe and worldwide. In the spring of 2017, the JA Company Program was run in 42% of all the upper secondary schools in Sweden and since its start in 1982 has been done by approximately 360 000 students (Ung Företagsamhet Sverige, 2017). The JA Company Program is also done by students in 40 European countries through JA Europe as well as in other parts of the world through JA World Wide (JA Europe, 2016; JA World Wide, 2016).

Despite the popularity of the JA Company Program in Sweden, there is very little peer-reviewed, published research in Sweden on this entrepreneurship project. Furthermore a review of literature on the JA Company Program, both in Sweden, as well as other parts of Europe, reveals that most studies are impact studies focusing on what students have learned, what affect entrepreneurship education may have on students' intention to start companies in the future, or what affect entrepreneurship education has on business start-ups (Elert et al., 2015; Moberg, Barslund Fosse, Hoffman, & Junge, 2015; Oosterbeek, van Praag, & Ijsselstein, 2010). Few studies investigate how students perceive they learn when starting and running Junior Acheivement mini-companies. Furthermore, the results of previous studies differ as to the impact of the JA Company Program on what students learn and students' entrepreneurial intention. This study hopes to contribute to present research in entrepreneurship education by providing more in-

depth knowledge and understanding about what Swedish upper secondary students perceive they learn, and the factors that students perceive affect their learning, when they start and run Junior Achievement mini-companies that meet the minimum requirements established by JA Sweden.

BACKGROUND

This chapter provides information about entrepreneurship, mini-companies, the JA Company Program, and key terms that are necessary to understand the prior research, as well as the results and subsequent discussions, presented in this study. The chapter begins by explaining various ways entrepreneurship, enterprise and entrepreneurial education are understood and defined by scholars in order to gain an understanding of these terms and the fields of research within which this study orients itself. Because the JA Company Program is one of many mini-company programs, the second part provides the reader with information about mini-company education and insight into what place the JA Company Program has in mini-company educational programs in Europe. This is followed by a detailed description of the JA Company Program as well as a general description of the organization that runs it. The aim of this section is to provide the reader with an understanding of the tasks involved when doing a Junior Achievement mini-company which will be referred to as a JA company for the rest of this thesis for simplicity sake as well as because they are called 'UF-företag' in Swedish which translates to 'JA company' in English (my translation). The goal of the JA Company Program, and the increasing presence of the JA Company Program in Sweden, will also be presented. The fourth part introduces terms scholars within entrepreneurship education use to separate what individuals learn into different components such as knowledge, skills, abilities and competencies. These terms are defined, and the term skill is further categorized into general skills and business skills. This is followed by a presentation of general skills in the *Curriculum for the Upper Secondary School* of 2011. The chapter ends by summarizing the major points of the background that motivate the aims and objectives of the study.

Entrepreneurship, enterprise and entrepreneurial education

The terms entrepreneurship and entrepreneurship education have come to have different meanings in different contexts. Furthermore, new terms such as enterprise education and entrepreneurial education

have been coined by scholars as a means of differentiating education focused on starting business from education that is focused on learning general skills. This section provides insight into how entrepreneurship education has evolved and provides definitions for the terms entrepreneurship, enterprise and entrepreneurial education. Understanding how these terms are defined is a necessary background for understanding how the JA Company Program is framed within these definitions, for understanding the literature presented in this study and as a basis of discussion of how the JA Company Program is perceived by students based on the results of this study.

The term entrepreneurship has been primarily associated with starting a business, or other venture, while entrepreneurship education in Europe has mostly focused on learning about entrepreneurship, learning about being an entrepreneur and learning to actually start and develop a business (Gibb, 2002). However since the 1990's, entrepreneurship education has widened its scope from promoting new businesses to developing general skills for all students not only for work but for personal development and as a means of contributing to society as a whole (European Commission, 2010). This shift in how entrepreneurship is seen in a general educational context is reflected in new definitions of entrepreneurship as a collection of general skills.

Seikkula-Leino et al. (2010), drawing upon the work of Ristimäki (2003), refer to internal and external entrepreneurship as a means of differentiating between using the term entrepreneurship as a means of learning to start a business or as a means of learning general skills. Internal entrepreneurship education has a more general connotation of developing general skills while external entrepreneurship education is focused on learning to be an entrepreneur for the purpose of starting a business or other venture creation. Education for internal entrepreneurship is often given the name enterprise education or entrepreneurial education all of which are associated with learning general skills (Falk-Lundqvist et al., 2011; Gibb, 1993; Hytti et al., 2002). Gibb (1993) states that "the over-riding aim of enterprise (or more accurately the enterprise approach to education) is to develop enterprising behaviours, skills and attributes and by this means also enhance student's insight into, as well as knowledge of, any particular

phenomenon studied" (p. 15). However Gibb (1993) also points out that enterprise education still often refers to learning to start and run businesses in many educational institutions around the world. The term entrepreneurial learning is a relatively new pedagogical term which came into being in the late 1990's (Dal, Elo, Leffler, Svedberg, & Westerberg, 2016). Falk-Lundqvist et al. (2011) describe entrepreneurial education as any educational method that leads to the learning of general skills and abilities, which is also referred to as entrepreneurial skills.

More recent definitions of entrepreneurship education strive to be so broad in scope as to encompass all forms of entrepreneurship education. For example, Moberg et. al. (2015) defines entrepreneurship education as "When you act upon opportunities and ideas and transform them into value for others. The value that is created can be financial, cultural, or social." (p. 14). The recommendation of the European Parliament and of the Counil of 18 December, 2006 provides another definition of sense of initiative and entrepreneurship which is one of the key competences for lifelong learning.

> Sense of initiative and entrepreneurship refers to an individual's ability to turn ideas into action. It includes creativity, innovation and risk-taking, as well as the ability to plan and manage projects in order to achieve objectives. This supports individuals, not only in their everyday lives at home and in society, but also in the workplace in being aware of the context of their work and being able to seize opportunities, and is a foundation for more specific skills and knowledge needed by those establishing or contributing to social or commercial activity. This should include awareness of ethical values and promote good governance (European Union, 2006)

Although these definitions differ in their formulation, they are both action oriented defining entrepreneurship as using knowledge and skills to turn ideas into some form of action which has value for society, individuals or the workplace.

This study uses the terms internal and external entrepreneurship education, as defined by Seikkula-Leino et al. (2010) to differentiate between entrepreneurship education whose aim is learning general skills (internal entrepreneurship education) and entrepreneurship education whose primary aim is learning how to start new businesses (external entrepreneurship education). Because the terms enterprise

and entrepreneurial learning also refer to education that fosters the learning of general skills, these two terms are considered synonymous with internal entrepreneurship in this study

Mini-companies in secondary education in Europe

The JA Company Program is one of many programs in Europe that provide an educational project known as mini-companies to schools. This section presents a brief description of mini-companies and orients the JA Company Program among other organizations that organize mini-company projects in European schools. It also presents factors that the European Commission deem important for the success of mini-companies in schools.

A mini-company (also called a student company) is defined by the European Commission as,

> A student company is a pedagogical tool on practical experience by means of running a complete enterprise project, and on interaction with the external environment (i.e. the business world or the local community) (European Commission/Enterprise and Industry Directorate-Gereral, 2005, p. 14).

Starting and running mini-companies is a form of entrepreneurship education that is both recommended and encouraged in the European political arena (European Commission, 2010). The report adds that mini-companies sell real products or services but can include virtual companies as long as they are realistic enough. However, the report also states that the goal of mini-companies is not restricted to learning business skills, but also developing general skills that are important to live and work in society. General skills that students can develop include creativity, self-confidence, working in teams, taking responsibility and taking initiative.

A study by the European Commission on mini-companies in secondary education in Europe identified 82 programs in 24 European countries. Over half of these programs (52) were run by private organizations of which the largest was the Junior Achievement organization in Europe (26) (European Commission/Enterprise and Industry Directorate-Gereral, 2005). One recommendation of the report was to increase the

number of students and schools that participated in mini-company programs thus showing the intention of the European Commission to increase entrepreneurship education in schools using mini-companies as a pedagogical tool. The study found that only fifteen percent of the upper secondary schools in the 24 European countries that participated in the study had mini-company programs. This is in contrast to Sweden, where the JA Company Program alone was run in forty two percent of all Swedish schools in the spring of 2017 (Ung Företagsamhet Sverige, 2017).

The JA Company Program is one of several mini-company programs that was recognized by the panel of experts as best practice. The concept of best practice is based on an analysis of mini-companies in Europe that resulted in a list of eleven factors that the study found to be important for the success of such programs (European Commission/Enterprise and Industry Directorate-Gereral, 2005). These factors are; (1) working in teams, (2) qualified teachers and volunteers, (3) continued support by teachers, (4) student freedom, responsibility to make own decisions, (5) appropriate teaching material, (6) program is flexible and integrated into school activities, (7) advisers from the business community (8) external events such as fairs, (9) support from local community, (10) regular evaluation of the program, and finally (11) networking between teachers and other actors involved in the program. Achievement of these factors in a mini-company program indicates best practice.

Junior Achievement Company Program

The Junior Achievement Company Program (JA Company Program) is a school project that lasts for one school year in which students start and run a mini-company.[3] It is run by Junior Achievement Sweden (JA

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[3] The information presented in this section, that provides information about the Junior Achievement Company Program, has been compiled by the author of this thesis based on information from JA Sweden's homepage, brochures and other JA material and verified as accurate by JA Sweden through P. Ekstam (quality manager) and A. Pleiner (educational manager) through e-mail and telephone contact throughout 2017 (Ung Föregtagsamhet Sverige, 2017; Ung Företagsamhet Sverige, 2016a,

Sweden), a non-government, non-partisan organization that started in 1980.[4] JA Sweden is financed by both local and state government organizations, such as local municipalities and the National Agency of Education, as well as private companies and other private organizations. JA Sweden is responsible for the overall organization, supervision, rules and regulations of the JA Company Program, but it does not run the program in the schools where it is used. The JA Company Program is run by teachers who are responsible for instructing and supervising students who start and run mini-companies (called JA companies) with support from JA Sweden. JA Sweden runs the JA Company Program through its 24 regional offices at no charge to the schools that choose to run them.[5]

Although JA Sweden calls the JA Company Program a program, it is widely considered a school project (European Commission/Enterprise and Industry Directorate-Gereral, 2005; Johansen & Schanke, 2013; Karlsson, 2009). Students who start JA companies can attend any of the eighteen national programs offered in Sweden established in the school reform of 2011 (Skolverket, 2013). Twelve of the national programs are vocational programs and six are college preparatory programs. The JA Company Program is part of the students' upper secondary school education and is not an extracurricular activity. The program can be incorporated into one or several courses. For example, a teacher can use the JA Company Program to fulfill requirements in one course, such as entrepreneurship, or in several courses such as entrepreneurship, metalworking, Swedish, and marketing. Therefore, teachers can use the JA Company Program to fulfill course

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2016b, 2017). Specific references are provided in this section when references are made to statistical information.

[4] Junior Achievement Sweden is translated as Ung Företagsamhet which is abbreviated in Swedish as UF. The abbreviation UF is used extensively in Swedish upper secondary schools. Students who do JA companies are often referred to in Swedish as UF-elever (JA-students) and their teachers as UF-lärare (JA-teachers). Schools included in this study have school years that begin in the middle of August and end in the middle of June. However, JA Sweden requires students to send them a year-end report in the middle of May. Students in this study stopped activities in their JA companies in, or before, May. This is not uncommon for JA companies.

[5] Every JA company must pay a registration fee of approximately 33 US dollars. Schools can choose to pay this fee for each company or let the students pay for it. Schools can, if they choose to, also pay for all, or part of, students cost to attend UF-fairs.

requirements in one, or several courses, which is also the case for students in this study.

JA Sweden states that the overall aim of JA Sweden "is to give children and youngsters the opportunity to train and develop their creativity, entrepreneurship and to become more enterprising" (my translation) (Ung Företagsamhet Sverige (2016a)). "Entrepreneurship today", states Lindqvist (2014) in the JA Company Program course literature, "has a broader meaning than a person starting a company. Entrepreneurship is seen as the ability to turn an idea into concrete action, alone or together with others" (my translation) (p. 15). According to JA Sweden, skills that students can develop when they start and run a JA company include creativity, taking decisions, problem solving, and self-confidence (Ung Företagsamhet Sverige, 2016b).

A Swedish JA company is similar in most respects to an official, registered company such as a sole proprietorship or general partnership however there are differences. For example, JA companies do not collect and send value added tax (VAT) to the Swedish Tax Agency. In very general terms, students go through the process of deciding on a business idea, writing a business plan, procuring or creating a product or service, marketing and selling their product or service, and writing a year-end report. During the process of starting and running their JA companies, students can do many activities such as manufacture or purchase products, create logos, make flyers and posters, and go to fairs to sell their products. Most any product of service can be sold. Examples of services are arranging discos, cleaning cars, delivering groceries, and producing homepages. Examples of products include designer pillows, imported socks, mobile phone apps and personally designed and manufactured wrapping paper. The JA companies that students have in this study have either manufactured their own product, bought a product or have created their own service all of which they then sell to private consumers and/or companies. Students who start and run a JA company are responsible for the company's debts, losses and other liabilities. Students keep all the financial profits made by their JA-companies during the school year. All year-end reports are reviewed and approved by the JA regional

offices. At the end of the school year, all assets in the JA company must be liquidated and any profits or losses are divided among the students. The JA organization provides short courses for teachers who teach students to start and run JA companies. Completion of these teacher courses results in a certificate. These teachers instruct and advise students about all aspects of starting and running a JA company as well as make sure that students follow the rules and regulations of the JA Company Program. In most other respects, students decide over their own JA companies regarding, for example, what they sell, how much they sell and to whom they sell products and services. Other teachers are often involved who can help students with various aspects of their JA companies. For example, a teacher who teaches Swedish can help students when they write their reports, a teacher in the building program can help students build a sauna or a teacher in the technical program can help students build a computer program. Students are also required to have at least one advisor from outside of school.

Most JA companies consist of two or more students.[6] Students are encouraged to take different positions in their JA companies such as president, finance officer, marketing officer, and sales officer (Lindqvist, 2014). At the end of the school year, students receive a diploma from JA Sweden if they complete five obligatory tasks (such as business reports and sales events) and three elective tasks (such as doing a logo, homepage, or environmental analysis). Every year, JA Sweden arranges regional and national fairs as well as competitions in various business areas. These competitions include best product, best service, best stand, best logo, and best annual report. The winning JA companies receive prizes usually in the form of a modest sum of money.

The JA Company Program is done by a significant number of students in Sweden. Since the program was first introduced in 1980, approximately 360 000 Swedish upper secondary school students have started and run JA companies and it is clear that participation is growing (Ung Företagsamhet Sverige, 2017). In the last ten years,

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[6] Approximately 87% of all the JA companies consisted of two or more students in the school year 2016-2017 according to P. Ekstam, quality manager at JA Sweden (personal communication, June 9, 2017).

between the school year 2006-2007 and 2016-2017, the number of students who started a JA company in Sweden doubled from 13 907 to 27 769. (Ung Företagsamhet Sverige, 2017). However, JA Sweden's goal is higher. The goal of JA Sweden is that 33% of a graduating class of upper secondary school students will complete the JA Company Program annually by the year 2020-2021 (Ung Företagsamhet Sverige, 2016a). In regards to European schools, JA Europe stated in the *JA Europe Annual Report 2016* that their priority is to "ensure that all young people have a practical entrepreneurship experience before leaving compulsory education" (JA Europe, 2016).

Competency, skill, and knowledge

This section is divided into three parts. The first part provides definitions for key terms such as knowledge, skills and competencies that are used in this study. The second part explains why, and on what grounds, skills are categorized into general skills and business skills. This is a common practice in other studies and reports and is a central tool used in the analysis of the data in this study. Lastly, the *Curriculum for the Upper Secondary School* of 2011 emphasizes the role that schools have to help students learn general skills throughout their education. The last part presents, and discusses the role of upper secondary schools, as presented in the *Curriculum for the Upper Secondary School* of 2011, to help students learn general skills for all aspects of life.

Definitions

Scholars often use a multitude of terms, such as skills, competencies, abilities and knowledge each of which defines different aspects of that which is known or learned. However, much of the literature on entrepreneurship and entrepreneurship education does not offer clear definitions of these terms which leads to confusion (Bird, 1989; Furnham, 2008; Hayton & Kelley, 2006). "In general," claims Weinert (1997), "we know what the terms "competence," "competencies," "competent behavior," or "competent person" mean, without being able to precisely define or clearly differentiate them. The same can be

said for terms such as "ability," "qualification," "skill," or "effectiveness" (p. 4).

Taking into consideration the various definitions of skills, knowledge and competencies in entrepreneurship literature and government documents, this study uses the following definitions of these terms. Drawing upon the works of Williams Middleton (2014) and Chell (2013), knowledge is defined in this study as cognitive knowledge in the form of knowing what (often referred to as factual knowledge), knowing how (often referred to as procedural knowledge), knowing why and tacit knowledge. Skill is defined in this study as varying degrees of proficiency to use knowledge to complete tasks. These two definitions are also, in general, consistent with those used by the National Agency of Education to define skills and knowledge (Skolverket, 2012). Drawing from the works of Chell (2013), abilities are defined as traits or aptitudes that affect the acquisition and performance of skills. Competency is defined as having the knowledge, skills, and ability to do a task. This general definition of competencies is, in its overall formulation, in line with other scholars such as McClelland (1987) and Markman (2007). One difficulty with the terms skills and competencies is that both terms are defined in terms of having, and being able to apply, knowledge to do a task. Thus, the two terms are often used interchangeably as can be seen in the reports and previous studies presented in this study. Thus, the terms competency and skill will be considered synonymous and the term skill is predominantly used throughout this text.

Having established a definition for skill and competency, it is necessary to differentiate these terms from the term competence. As Hayton and Kelley (2006) point out, the term competency should not be confused with the term competence. A person's competencies can only be judged when observed in behavior when a person does a task. The term competence is defined in this study as "the proven ability to use knowledge, skills, and personal, social and/or methodological abilities, in work or study situations and in professional and personal development" (European Parliament, 2008, p. 5). As such, a competent person is someone who has proven themselves to be able to use their competencies or skills in order to successfully do specific tasks related

to work, study, personal development or other endeavors. It is important to note that this study investigates students' perceptions of their own learned skills or competencies and not students competences.

It is also important to define the term learning and explain how the term is used when exploring students' learning of knowledge and skills. This study uses Mezirow's (1990) definition of learning as "the process of making a new or revised interpretation of the meaning of an experience, which guides subsequent understanding, appreciation, and action." (p. 1). It is important to note the wording "new or revised interpretation" because learning can refer to learning a new skill for the first time, for example a business skill a student has never learned before, or further developing a general skill. Thus the term learning is used both to mean to learn something new or to further develop knowledge or skills (Mezirow, 1990, p. 1).

General skills and business skills

Studies and reports often differentiate between general skills and business skills. For example, in the report *Mini-Companies in Secondary Education*, conducted by the European Commission and experts in the field of entrepreneurship education; mini-companies are said to create activities for students that give them the opportunity to develop basic business skills as well as personal qualities and transversal skills (European Commission/Enterprise and Industry Directorate-Gereral, 2005). Transversal and personal skills refer to general skills such as creativity, self-confidence, teamwork, responsibility and initiative. These general skills are not bound to one context but rather have a "cross-curricular dimension" (European Commission/Enterprise and Industry Directorate-Gereral, 2005, p. 7). Business skills are consider specific skills used in business activities and include market research, budgeting, allocating resources, and advertising.

The ability to categorize skills into general skills and other more specific skills is based on how skills are used, and the contexts in which they can be used. According to Chell, (2013) skills and competencies

are grounded in both context and task. The contextual nature of skills is what allows one to identify business skills and differentiate them as a category from other categories of skills relating to other contexts (Spenner, 1990). The concept of dividing skills into two areas, general and specific, is also voiced by Solstad (2000) who argues that general or entrepreneurial skills such as curiosity, problem solving, and taking responsibility can be applied to many endeavors whereby specific competencies are associated with a specific task or occupation. Thus, this study will use the term general skills to describe skills that are not context or occupational specific and the term business skills to describe skills that are specific to business activities.

Skills in Swedish upper secondary school curriculum

According to The National Agency for Education, the *Curriculum for the Upper Secondary School* of 2011 represents a shift in education with greater emphasis on preparing students for work and higher education (Skolverket, 2012). The National Agency for Education points out that "requirements for general competences have, however, not been reduced but indeed strengthened in recent decades" (Skolverket, 2012, p. 13). It further points out that "general competences can be developed in specific contexts" (Skolverket, 2012, p. 13). The *Curriculum for the Upper Secondary School* of 2011, under the heading "Tasks of the School" names numerous skills that all students should have the opportunity to learn.

> The school should stimulate students' creativity, curiosity and self-confidence, as well as their desire to explore and transform new ideas into action, and find solutions to problems. Students should develop their ability to take initiatives and responsibility, and to work both independently and together with others. The school should contribute to students developing knowledge and attitudes that promote entrepreneurship, enterprise and innovative thinking. As a result the opportunities for students to start and run a business will increase. Entrepreneurial skills are valuable in working and societal life and for further studies. In addition, the school should develop the social and communicative competence of students, and also their awareness of health, life style and consumer issues (Skolverket, 2013, p. 7).

This passage reflects the importance that the National Agency of Education places on learning general skills. However, the *Curriculum for the Upper Secondary School* of 2011 also specifically points out the importance of general skills for starting and running businesses as well

as work and society thus emphasizing external entrepreneurship as well as internal entrepreneurship. The importance of learning skills in all school forms is further stated in another publication by the National Agency of Education, *Entrepreneurship in School* (my translation). In this publication, the Swedish National Agency of Education defines entrepreneurial learning as, "the development and stimulation of general competencies such as taking initiative, responsibility and transforming ideas into action" (my translation) (Skolverket, 2010, p. 3). It also emphasizes many of the skills named in the *Curriculum for the Upper Secondary School* of 2011.

Concluding remarks

Information provided in the introduction and background not only provide information needed to understand reports and previous research. It also provides information about what is known and questions that still need to be investigated. In general, we know that changes in the economy, and other social developments, prompted international organizations, such as The European Union, to promote the learning of general skills in schools and universities for work, personal development, and society (Mahieu, 2006). The European Union has also promoted mini-companies as a pedagogical tool to help students learn to start new businesses as well as a means of learning general skills (European Commission, 2010; EuropeanCommission/EACEA/Eurydice, 2016).

During the last few decades, national governments in Europe have increasingly worked to address the issue of how to promote the learning of general skills in all forms of education as well as how to promote starting more businesses. In Sweden, the school reform of 2011 emphasized the role of schools in helping students to learn general skills throughout students' education. The *Curriculum for the Upper Secondary School* of 2011 expressly states that helping students to learn general skills is a task for all upper secondary schools (Skolverket, 2013). Furthermore, while it states that these skills are valuable for work, society, and further studies it also specifically says that they should help increase individuals' opportunities to start and run

businesses. One pedagogical method that Swedish schools have adopted is the JA Company Program which is the leading privately run and organized mini-company project in European upper secondary schools(European Commission/Enterprise and Industry Directorate-Gereral, 2005).

However, despite the growth of entrepreneurship and enterprise educational programs, most research on entrepreneurship education is focused on higher education (Johansen & Schanke, 2013). Furthermore, little is known about what students learn or the factors that influence their learning in these entrepreneurship programs (Elert et al., 2015; Jones & Colwill, 2013). This appears to be even more the case regarding the JA Company Program in Sweden about which there are very few published, scholarly studies. Given both the popularity and impact of the JA Company Program in Sweden, and worldwide, it is important to gain further insight into what students perceive they learn and the mechanisms that students say affect their learning when they start and run JA companies.

Aim of research

As will be seen in the next chapter, results from previous studies on the impact of the JA Company Program in Sweden and other countries in Europe differ (Dwerryhouse, 2001; Jones & Colwill, 2013; Norberg, 2016b; Oosterbeek et al., 2010; Volery, Müller, Oser, Naepflin, & del Rey, 2013). Furthermore, the skills that these studies say students learn are usually presented as lists, in one form or another, leaving questions about what students mean when they say they learn different skills. Moreover, few studies investigate the mechanisms that influence how, and what, entrepreneurial skills students learn when they do entrepreneurship in secondary school (Elert et al., 2015; Jones & Colwill, 2013).

The aim of this study is to gain more in-depth knowledge and understanding into what Swedish upper secondary school students perceive they learn, and the factors that students perceive affect

learning, when they start and run JA companies that meet the minimum requirements established by JA Sweden.

Research Questions

1. What do students perceive they have learned when they start and run JA companies?

2. What factors do students say affect what, and how they learn when they start and run their JA companies?

3. How can we understand students' reflections on their learning when students start and run their JA companies?

Each of the research questions is designed to provide a different perspective of what students learn and how they learn. The first question lays the foundation for the study since one cannot investigate and analyze how and what students perceive they learn until one ascertains if students perceive that learning has taken place. The second question investigates and analyzes what students say affects what and how they learn. The third research question presents further ways students reflect on learning. The intention is that data obtained from all three research questions will provide more in-depth knowledge into what Swedish upper secondary school students perceive they learn, and the factors that students perceive affect learning, when they start and run JA companies.

PRIOR RESEARCH

The prior research presented in this study includes national and international published, peer reviewed articles and theses as well as rapports and published educational material. This body of literature was collected through internet searches on Google Scholar, DIVA, ERIC, Web of Science, Libris, and EBSCO as well as through reference lists in relevant literature. Those studies that have been selected investigate students' learning associated with starting and running JA companies. Because there are few peer reviewed, published studies in Sweden specifically focused on what, and how students learn when starting and running JA companies, three other Swedish studies have been included. These studies investigate learning that students associate with entrepreneurial project work that have many similarities to the JA Company Program. Studies from Europe are also included both as a supplement to the Swedish studies, and in order to gain a broader perspective of students' learning, when doing the JA Company Program. Europe was chosen because Sweden is a member of the European Union and is within a European context. Although the concept and execution of the JA Company Program is generally the same in Europe as in Sweden, it is important to note that European research is done in other educational and cultural contexts. This can affect the results of the European research compared to the results of Swedish studies.

The articles, theses and reports in this chapter contribute to our knowledge of what students learn when doing the JA Company Program, or other similar entrepreneurship programs, as well as to our knowledge of the mechanisms that affect students' learning. However, scholars often provide information about both areas of study; what students learn as well as the mechanisms that drive students' learning, from the perspective of students, teachers or others. This makes it difficult to present prior research thematically while still describing necessary information about the individual studies' methods, school and national or international context. As such, each article, thesis, report or other material are presented individually and geographically starting with Sweden followed by Europe. The chapter ends with a

brief discussion of the results from the articles presented which also provides a thematic overview of the literature.

Prior research in Sweden

The first Swedish study presented here is by Karlsson and Olofsson (2011) who investigate how the JA Company Program develops students' attitudes towards entrepreneurship. Data was collected between 2008-2011 using interviews, observations and surveys from students, school administration, JA representatives, politicians and other officials. The general view of teachers, politicians and school administrators was that the JA Company Program was a method of learning that led to students' personal development as well as their development as future entrepreneurs. Some, however, viewed the JA Company Program as being primarily a means of educating students to start a company. Teachers, and support from the school administration, were seen as being key factors in the success of the project. JA Company fairs and competitions were seen as important driving forces for students learning. The educational material provided by JA Sweden helped students by giving them freedom and empowerment to develop their own business ideas and work with tasks that they thought were appropriate such as marketing, or bookkeeping. Overall, students were enthusiastic and engaged in their JA companies. Sixty six percent of the students surveyed viewed the JA Company Program as educational and fun whereby a few students viewed the project as boring and not personally interesting. The study also concludes that there is no evidence that the students obtained more self-understanding about their future career choice.

A recent contribution to understanding learning when students do JA companies is by Lackéus (2016) in a conference paper for the 3E ECSB Entrepreneurship Education Conference in 2016. Seeking to understand the different kinds of value generated by entrepreneurship education, Lackéus (2016) investigated a total of six different student activities in primary, secondary and higher education. One of these activities is the JA Company Program done by students in a major Swedish city. Using data from a mobile app and semi-structured

interviews, Lackéus analyzes the data using a value creation model consisting of five types of value creation; economic, enjoyment, harmony, social, and influential. The data is also analyzed using an economic framework; educational, entrepreneurial and neoclassic.

Of particular relevance to this study are the factors that affected students learning when doing the JA Company Program. Lackéus comes to the conclusion that students who do the JA Company Program are primarily focused on economic value for personal gain and enjoyment value centered around customers. However Lackéus states that the "most important activities that triggered student learning were value creation for others, team-work experiences and interaction with outside world" (Lackéus, 2016, p. 17). Other factors that affected students learning were support from teachers and the JA-staff, positive feedback from customers, using their competencies in practice and a sense of personal ownership (Lackéus, 2016). In all six case studies, value creation for individuals outside of school who have a stake in students' activities "triggers high levels of student engagement, motivation and emotionality" (Lackéus, 2016, p. 19). Enjoyment as value is also found to be of significant importance to students' motivation. Enjoyment value is seen as more significant to students in an educational setting than personal economic gain. Value that was found to be less common in the study was harmony value. Social value, although common, was secondary to economic and enjoyment value.

Another recent study on entrepreneurship education in secondary schools in Sweden was done by Norberg (2016b) who investigates whether entrepreneurship activities fosters in students entrepreneurial or democratic citizens or both. Twenty-one students from all four programs in one school were chosen. Data was collected using focus group, semi-structured interviews. The school is part of an entrepreneurship learning program governed by Ifous (Innovation, Research and Development in Schools). All students do the JA Company Program all three years of their education as well as other entrepreneurship activities in school such as work placement. The results of the study reflect all entrepreneurship activities done by the

students however several students attribute much of what they learned through their activities in the JA Company Program.

In general, students said that they learned to take responsibility, develop new perspectives and develop as a person. They also said they learned to cooperate with others, however students working together in groups did not always have the same goals forcing compromise. Creativity in students was found to be often associated with freedom. The study found that students had the time to reflect and analyze which was facilitated by long lessons. In general, students seemed to have good self-confidence. The ability to take initiative and responsibility were also attributed to starting and running JA companies. In general, "projects that last for a long time create extra scope for freedom and possibility to influence" (Norberg, 2016b, p. 146). Students talk about other factors that are important for learning such as work that is transdisciplinary and contact with others outside of school.

In the absence of more studies that are specifically focused on learning through participation in the JA Company Program in Sweden, three studies are presented that investigate upper secondary school students' learning associated with other entrepreneurial programs or courses that have a strong connection to business practice. The first study is part of a thesis written by Svedberg (2007) whose purpose is to "describe, analyze and gain knowledge of what entrepreneurship in the Swedish upper secondary schools imply in practice" with particular focus on learning (p. 181). Information was obtained through observations, video recordings, and informal conversations with year two students and teachers, as well as formal conversations with headmasters, in two upper secondary school programs that participated in the project PRIO 1 which stands for Planning, Result, Initiative and Organization (my translation). The study focuses on courses, or other aspects, of two different programs in two upper secondary schools, Uppdragsskolan and Projektskolan, which are perceived by the researchers to have a strong link to entrepreneurship. Svedberg's (2007) investigation into the P-program in the Project School (my translation for the fictive name of the school 'Projektskola') is of particular interest because students' project work is similar to business ideas which students who start JA companies have used such

as designing and manufacturing a clothing collection, writing a brochure for young people looking for work or writing a cook book for students.

Results from Svedberg's dissertation (2007) which are of particular relevance to the results in this study concerns group work, motivation and leadership. Similar to JA companies, one student is asked to be the leader of the project chosen by students in the P-program however Svedberg (2007) notes that in practice, responsibility for various tasks are divided between students in the group. Svedberg (2007) makes the conclusion that students appear to prefer a flat organizational structure rather than a hierarchical one. Furthermore, when students are given the opportunity to choose and have responsibility for their own project it creates a situation in which students find it easier to work together. Most students in in the Project School that Svedberg investigates are satisfied with their group work but some felt that it was difficult to work together and some groups were dissolved and reformed with other students. Svedberg's (2007) analysis using Lave and Wenger's (1991) theory of situated learning led to the determination that each program was a community of practice sharing a joint enterprise, mutual engagement and shared repertoire.

Another study which is of particular interest is a thesis done in a phenomenographic research tradition by Otterborg (2011) titled *Entrepreneurial learning - Upper secondary school students' different perceptions of entrepreneurial learning*. The aim of the study was twofold: firstly to investigate the multifaceted types of entrepreneurial learning and secondly to study how upper secondary school students understand entrepreneurship learning. Data for the study was derived from 45 minute interviews with 16 upper secondary school students who attended a specially formed entrepreneurship program which, among other things, required the students to spend one day a week at a private company which became the student's host company during the student's upper secondary school education. The purpose of placing students at host companies was to help students learn more about entrepreneurship and to help the students learn to apply theoretical knowledge learned in school in an authentic environment. The interviews were specifically focused on the project

work that the students did for their host companies in their third year of school. Otterborg's study (2011) reveals that students' project work had positive effects on students learning regarding both team building and networking skills. It also showed the transferability of knowledge from school to company and vice versa. The authentic nature of the students' project leads to students taking more responsibility and being more motivated.

The last study to be presented is by Norberg, Leffler and From (2015) that investigates the fostering of citizenship in students who participate in entrepreneurship activities in school. The data collected includes various reports, curricula and interviews with pupils (otherwise referred to as upper secondary school students) and teachers. Of particular interest are the focus group interviews of ninety pupils ages 16-18 who were asked to discuss what entrepreneurial abilities they believed would be important in their future lives. Twenty-six groups of pupils were interviewed. The numbers after each ability indicate the number of pupil groups who talked about each ability; social competence (12), working with others (9), responsibility (7), working independently (6), communicative competences (4), self-confidence (3), and taking initiative (3). The pupils also talked about other abilities that Norberg, Leffler and From (2015) categorized as 'factual knowledge' such as English, mathematics, and Swedish. Only one pupil mentioned anything that was specifically business related, 'economics' and that was also categorized as factual knowledge. The study also investigates teachers understanding of entrepreneurial abilities. The list includes all of the skills named by pupils as well as creativity (6), curiosity (4), transforming new ideas into action (3) and solving problems (1). These lists provide some insight into the views of those pupils and teachers interviewed regarding what skills they believe should be placed within the category they understand to be entrepreneurial abilities.

Prior research in Europe

Oosterbeek, van Praag, & IJsselstein (2010) conducted a quantitative study whose aim was to investigate the impact of the JA Company

Program on post-upper secondary school students' entrepreneurial skills and intention to start a company. All the students studied in one large vocational college in the Netherlands and 93% of the students who did the JA Company Program were 21 years old or less. The study used an ESCAN self-assessment test that measured seven traits (need for achievement, need for autonomy, need for power, social orientation, self-efficacy, endurance, risk taking propensity) and three skills (market awareness, creativity, flexibility) that entrepreneurship research has revealed as important when determining whether individuals will be successful entrepreneurs. The test was completed by 104 students doing the JA Company Program and 146 students in a control group.

The study concluded that the effect of the JA Company Program on students' self-assessed entrepreneurial skills was insignificant and the effect on the students' intention to start their own business was negative. The researchers conclude that the negative effect of the JA Company Program on students' intent to start a business after school may have been due to students' better understanding of the difficulties of starting and running a successful and profitable business. The researchers point out that the students who did JA companies may "have obtained more realistic perspectives both on themselves as well as on what it takes to be an entrepreneur" (Oosterbeek et al., 2010, p. 452). Furthermore, these students may thus have further developed skills but may not have evaluated their own skills as highly after doing their JA Companies as they did before doing their JA companies.

In contrast to the study by Oosterbeek, van Praag, & IJsselstein (2010), the results of a qualitative study conducted by Jones and Colwill (2013) showed an overall positive perception of learning skills and abilities. Forty-four upper secondary school students who did the JA Company Program in Whales participated in semi-structured interviews. All of these students had won a JA regional final.[7] The focus of the study was to investigate the impact of starting and running a JA company on these students' knowledge, skills, abilities and future intent to start a

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[7] The JA Company Program in Whales, and in this study, is called the Young Enterprise Whales program.

business. The study found that the majority of students perceived they learned, or further developed, skills. Only 15.9% of the students gave negative comments. The skills that students perceived they learned, or further developed, were; self-confidence (81.8%), team-work (97.8%), understanding of their own personal strengths and weaknesses (97.8%), understanding of business operations (93.2%) and business planning (88.6%). When asked what the most significant benefits of starting and running a JA company had been, the students often pointed out the importance of their team, learning to sell and deal with money and knowledge of running a business. Other positive benefits mentioned by some students were having an opportunity to learn and develop skills, increased self-confidence, meeting new people and the entire experience of the JA Company Program.

Although the amount of negative comments were reported as being minimal, two to three students identified communication, lack of organization, business advisor support, and identifying and selling a product or service as areas that they had trouble with. Other problem areas that were mentioned by individual students were start time, large amount of time the project took, learning about finance, self-confidence and stock keeping. The study finds a strong link between the authentic nature of the JA Company Program experience and the students' learning. Furthermore, the authors state that the JA Company Program "benefits significantly from the provision of supportive mentors and advisors, the value of the entire experience and the final event specifically" (Jones & Colwill, 2013, p. 922).

Dwerryhouse (2001) investigated the impact of the JA Company Program and its possible role in the 16-19 curriculum in England, especially regarding the Advanced Vocational Certificate in Education. The study uses semi-structured interviews of a small number of students, teachers and business advisors all involved in the JA Company Program as well as a separate questionnaire to 50 schools. Many students talked about learning from experience, and how experience was used to modify their behavior in their company's operation. Students perceived they learned communication skills, numeracy, working in a team, and working independently. The study comes to the conclusion that the JA Company Program is an action

learning approach to learning business within a realistic working environment. Students talk about learning from their mistakes, realism, autonomy, and advisers acting in an advisory capacity as being key factors that affected their learning. Students overall positive attitude toward learning was also deemed as a significant factor that had a positive effect on learning when starting and running JA companies. Students were said to reflect on the success or failure of actions taken in their companies which helped them develop and improve their businesses. Having the ability to reflect over an extended period of time was considered as very beneficial to test new concepts. Lastly, teachers pointed out that students who had done the JA Company Program showed greater interest in working with others, and had developed better team skills in school thus showing a transferability of team skills learned in the JA Company Program to other schoolwork.

Most of the studies presented in this literature review have provided some insight into the skills that students learn when doing the JA Company Program or other entrepreneurship projects. However the European Commission came to the conclusion that there was no clear consensus on what competences entrepreneurship are comprised of (Bacigalupo, Kampylis, Punie, & Van den Brande, 2016). Therefore using a mixed methods approach including review of literature, case studies, and consultations with multi-stakeholders, the Joint Research Center of the European Commission created a list of competences that "identify the key components of entrepreneurship as a competence" (Bacigalupo et al., 2016, p. 7). The other two aims of the report are to create a "shared conceptual model" that others in the field of entrepreneurial learning can refer to as well as a reference "to suggest what European citizens should know, understand and be able to demonstrate a certain level of proficiency" (Bacigalupo et al., 2016, p. 7). The framework consists of 15 competences divided into three competence areas which are "ideas and opportunities", "resources", and "into action" (Bacigalupo et al., 2016, p. 10). Under the category 'ideas and opportunities' are the following competences; spotting opportunities, creativity, vision, valuing ideas, ethical and sustainable thinking. Under the category 'resources' are self-awareness and self-efficacy, motivation and perseverance, mobilizing resources, financial

and economic literacy, and mobilizing others. Under the category 'into action' are the competences taking the initiative, planning and management, coping with uncertainty, ambiguity and risk, working with others, and learning through experience. Furthermore, the report refers to reflection in learning especially in conjunction with learning through experience. Examples that are given include, "reflect on my (or my team's) achievements and temporary failures as things develop so as to learn and improve my ability to create value," and "identify and assess your individual and group strengths and weaknesses" (Bacigalupo et al., 2016, p. 27). The authors point out that at the date of its publication, the entrepreneurship framework presented in this report had not been tested in a real setting.

Discussion of prior research

A review of the previous studies presented in this chapter shows that all but one of the studies concludes that the JA Company Program had a positive effect on students' learning general skills. The one study that did not show a significant effect on students' self-assessed general skills was also the only purely quantitative study by Oosterbeek, van Praag, & IJsselstein (2010). A review of the qualitative studies reveals that each study presents their own list of skills that students' perceive they learn. Many studies state, or imply, that students develop skills in responsibility and working together (Dwerryhouse, 2001; Norberg, 2016b; Otterborg, 2011; Svedberg, 2007) . Otherwise the skills students perceive they learn, that are mentioned in the studies presented in this section include various combinations of such skills as networking, self-awareness, self-confidence, working independently, and communication skills. Jones and Colwill (2013) also provide some information about the business skills that students perceive they learn including learning to sell, dealing with money and overall knowledge of starting and running a company. Very little information is provided about possible problems students experienced while students do their JA companies. Some students in the study by Jones and Colwill (2013) talked about poor communication, lack of organization, business advisor support, and problems identifying and selling a product or service as areas that they had trouble with. Other areas of difficulty that

were mentioned by one student included learning about finance, too time consuming and self-confidence.

Previous research presented above also presents different combinations of factors that have a positive effect on students learning. Some of the factors that are discussed more often than others include teachers or advisors, students' autonomy over their own project, authentic nature of project, and action learning (Dwerryhouse, 2001; Jones & Colwill, 2013; Karlsson & Olofsson, 2011; Lackéus, 2016; Norberg, 2016b; Svedberg, 2007). Other factors that the above studies indicate have a positive effect on students' learning include value creation, enjoyment, positive feedback from customers, sense of personal ownership, long period of time, ability to reflect, and learning through making mistakes. Although there is more agreement as to the mechanisms that support students' learning than the skills students' perceive they learn, there are still considerable differences as well. This is perhaps due to the specific aim of the studies that focus on different areas of students' learning or on the sample of students in these different studies. As such, although these studies provide valuable insight into what students' perceive they learn, and the mechanisms that affect their learning in the JA Company Program or similar entrepreneurship projects, there appears to be further need of research in this area.

THEORETICAL FRAMEWORK

The chapter begins by orienting mini-companies within the progressivist movement and project-based learning. Many core concepts of the JA Company Program, and theories used in this thesis, are strongly connected to central ideas within the progressivist movement. Situated learning theory, experiential learning and Mezirow's theories on reflection on learning comprise the theoretical framework used to analyze and better understand the data in this study. Situated learning theory is a holistic theory of learning that provides a means of understanding learning through practical experience in specific contexts (Lave & Wenger, 1991). Situated learning theory, with its focus on learning through active participation in the environment in which activities normally occur, reflects the core concept of mini- companies as a pedagogical method of education that promotes learning through practical experience in environments outside of school. Experiential learning theory is an action-based theory of learning that helps explain the students' cognitive learning processes and the role of reflection in the learning process (A. Kolb & Kolb, 2009). Lastly, Mezirow's theories on reflection are presented to provide different ways of understanding and analyzing how students reflect on experience and how reflection can affect individuals' frame of reference and behavior.

Project-based learning and progressivism

The JA Company Program provides a framework for students' learning that reflect many of the principals of project-based learning.[8] Understanding some of these basic principles of project-based learning provides more insight into both the JA Company Program and the theories upon which the data in this study is analyzed. Project-based learning is firmly rooted in the progressivist movement whose arguably most well-known advocate was the American philosopher and educational reformer John Dewey (Labaree, 2005). Dewey (1902)

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[8] See Thomas (2000) for a review of the basic principles of project-based learning.

claimed that it was difficult for students to understand facts, concepts and theories without also teaching students how they are applied in real life situations. Teaching facts, concepts and theories isolated from the contexts in which they are used, Dewey claimed, creates a logical, step-by-step approach to teaching and minimalizes the importance of students' own experiences. In his book *Experience and Education* (1938), Dewey proclaims that some of the common principals of the progressive school of thought should be the cultivation of individuality, learning through personal experience, participation in one's own learning, and interaction with the real world.

Learning is a result of experience, claimed Dewey (1938), but not all experience is positive for learning. Students who are not given the opportunity, freedom and responsibility to pursue ideas that have meaning to them will fail to develop. Learning is a social endeavor and teachers should support students;

> to allow the suggestion made to develop into a plan and project by means of the further suggestions contributed and organized into a whole by the members of the group (Dewey, 2007, pp. 71-72).

Student projects, explains Dewey (1938) need to be carefully planned, investigated and reflected upon before students engage in them. Projects that have meaning to students will arouse curiosity and promote initiative. Progressive pedagogical education involves social contact thus depending on, and developing, communication skills while the teacher's roll is to support and guide students.

Situated learning theory

Situated learning theory is a holistic theory of learning that focuses on individuals' active participation in a social world in order to understand individuals' learning process (Lave & Wenger, 1991). When applied to this study, situated learning theory is used as an analytical tool to better understand students' perception of how active participation in their JA companies, which is situated in multiple contexts, affects their learning. Situated learning is a theory heavily influenced by social constructivism, especially Vygotsky's theory of learning in which learning takes place in the interaction of person and social

environment (Quay, 2003). The principal scholars of situated learning used in this study are Lave and Wenger, who view the learning process as the active participation of individuals who affect, and are affected by the social and cultural world in which they participate (Lave, 1991; Lave & Wenger, 1991). In contrast to cognitive theories of learning which focus on cognitive processes and which assume a separation between knowledge, culture and action (Barab & Duffy, 2012), situated learning is a holistic view of learning in which "learning is recognized as a social phenomenon constituted in experience" (Lave, 1991, p. 64). Lave and Wenger (1991) used the concept of situated learning to explain how apprentices learned the skills, language, rules, customs and traditions of an occupation, such as a midwife or tailor, when totally emerged in a community of practice. However, they point out that situated learning is not "an abstracted generalization of the concrete cases of apprenticeship – or any other educational form" (p. 37). Rather, it is an analytical perspective on all learning that "should provide the same analytical leverage as it would for any other educational form" (Lave & Wenger, 1991, p. 39).

Lave and Wenger (1991) claim that learning takes place through action in highly complex environments and as such is best situated in the environment in which the activity normally occurs.[9] Lave and Wenger (1991) coined the term "legitimate peripheral participation" as a means of expressing this learning process in which individuals actively participating in the normal activities of a community (p. 35). For example, learning to be a loan officer would be best accomplished by participating in the activities of a loan officer in a bank whereby the bank constitutes a legitimate community in which a loan officer normally works. The word peripheral, in the term legitimate peripheral participation, refers to varying degrees of participation in the ordinary practices of a community. Together, the three concepts of legitimate, peripheral and participation form a "community membership" (Lave & Wenger, 1991, p. 35). Complete peripheral participation and

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[9] The term authentic environment and authentic activity are often seen in literature. These terms are used to indicate environments, or activities, which are part of the ordinary environment, or practice of a community. See Brown, Collins and Duguid (1989).

legitimacy, according to Lave and Wenger, will lead to full participation and acceptance in the community. The concept of peripheral also allows for varying degrees of legitimate participation and belonging in a community. A business student, who learns the theory of loaning money to customers in a classroom while doing work practice as a loan officer in a bank, might be said to achieve a degree of legitimate peripheral participation.

Every community of practice carries with it, and is defined by, a complex mixture of norms, regulations, language, history, culture and social customs (Lave & Wenger, 1991). A community of practice can be a group of individuals, a bank, a government institution, or a school. Lave and Wenger (1991) view the interaction between the individual and the community of practice as interconnected. "The person is defined by as well as defines these relations" (Lave & Wenger, 1991, p. 53). The community of practice is able to regenerate itself by obtaining new members as the old members leave the community. Lave and Wenger (1991) refer to individuals who are striving to become members of a community of practice as 'newcomers' and those who are accepted as 'old-timers'. Newcomers are not viewed as individuals who assimilate all cultural practices of a community without question. Newcomers may question the practice, culture, language and rules of a community of practice and thus change in various degrees the community in which they seek membership. Hay (1996) challenges Lave and Wenger's view that newcomers can question, and affect change on, a community of practice. "Students have not "space" to create knowledge within the community of practice until they reach a certain station in relationship to the center of the community- by which time, most newcomers are transformed into old-timers" (Hay, 1996, p. 93). Furthermore, Hay claims that old-timers are less likely to challenge cultural practices in the community of practice in which they belong for fear of reducing or jeopardizing their position in the community.

Lave and Wenger (1991) postulate that "knowing is located in relations among practitioners, their practice, the artifacts of that practice, and the social organization and political economy of communities of practice" (p. 122). Thus what is learned, and the meaning of what is

learned, is located within a specific community of practice. "Knowing a general rule by itself", state Lave and Wenger (1991), "in no way assures that any generality it may carry is enabled in the specific circumstances in which it is relevant." (p. 34). This view is contested however by Anderson, Reder and Simon (1996) who site studies which demonstrate transfer of learning from one context to another as well as studies that are unable to show context in learning (Fernandez & Glenberg, 1985; Saufley, Otaka, & Bavaresco, 1985). Anderson, Reder and Simon (1996) claim that when classroom instruction does not provide learning which can be used in a job, it is not necessarily the inability to transfer classroom knowledge and use it in the workplace but rather an inability to design in-school education which meets the needs of the workplace. Singley (1989) proposes yet another idea that the extent in which learning is bound to context is dependent upon the knowledge which is learned. As such, both the design of classroom education as well as a better understanding of the impact of context on learning may have a significant impact on learning and the transferability of learning.

There has been much criticism against the individualism of education which many scholars claim often prevails in schools (Brown et al., 1989; Bruffee, 1995; Resnick, 1987). Resnick (1987) states that students work individually in school and even when they do work in groups they are still graded individually instead of on the collaborative work done by the group which, claims Resnick, is in contrast to the working environment which is found outside of school. Bruffee (1995) claims that collaborative learning "helps people learn to work together successfully " (p. 16). Collaborative learning can, claim Brown, Collins and Duguid (1989) improve students' collective problem solving skills, understanding of the need and function of roles in a group, and collaborative work skills as well as help students gain a better understanding of what they learn through discussions among the students in their groups. "In the collaborative conditions of the workplace, knowing how to learn and work collaboratively is increasingly important. If people are going to learn and work in conjunction with others, they must be given the situated opportunity to develop those skills" (Brown et al., 1989, p. 40).

In respect to newcomers, learning through peripheral engagement in practice may be improved when accompanied by information sharing and reflection in the classroom and classroom training (Wenger, 1998). The process of reflection allows one to gain further understanding and insight about tasks, experiences and thought processes. Reflection can be individual, within a group or within a community of practice (Brown et al., 1989; Wenger, 1998). Brown, Collins and Duguid (1989) point out that groups, "can be efficient in drawing out, confronting and discussing both misconceptions and ineffective strategies" (p. 40).

Experiential learning theory

Experiential learning theory is an action-based theory of learning that is closely related to situated learning theory (Quay, 2003). The core concept of experiential learning, as theorized by Kolb (1984), is that learning originates in experience mediated by reflection. Based on this core concept, Kolb (1984) formulated a cyclical learning theory of experiential learning based on previous models of learning by Dewey (1938), Piaget (1964), and Lewin (sited in Burnes, 2004), in which learning occurs through the process of concrete experience, reflective observation, abstract conceptualization and active experimentation (D. Kolb, 1984). Thus while situated learning provides a holistic theory of learning in which learning takes place in the constant interaction of individuals acting in a social world, Kolb's theory of experiential learning emphasizes the cognitive process of learning in which individuals reflect on experience to form new knowledge that can then be tested. Experiential learning theory is particularly relevant to this study because it helps analyze how students learn through reflection on activities they have done while starting and running their JA companies.

There are several aspects of experiential learning theory that are of particular interest to this study one of which is the cyclical nature of learning. Learning through repeated experience creates a 'spiral of learning' that can lead to learning of both specific skills and personal development (A. Kolb & Kolb, 2009). "The experiential learning cycle is actually a learning spiral. When a concrete experience is enriched by

reflection, given meaning by thinking, and transformed by action, the new experience created becomes richer, broader, and deeper" (A. Kolb & Kolb, 2009, p. 311). This leads A. Kolb and Kolb to quote the old adage 'practice makes perfect' meaning that repetition of doing the same, or similar activities, improves knowledge and skills. However, in order for individuals to learn through experience individuals require time. The amount of time is dependent on what is appropriate for individual tasks.

For an individual to understand whether they need to learn new knowledge or skills, or further develop the knowledge and skills already possessed, there needs to be some system of feedback. That is to say, a means of comparing an individual's own knowledge and skills in order to evaluate them. This is provided through reflection "with a mental model or explicit outcome" (A. Kolb & Kolb, 2009, p. 313). Thus, the degree of success that an individual has when doing tasks creates feedback for the individual and a means of evaluating, through reflection, their knowledge and skills.

The success or failure of the tasks individuals do also "trigger a reassessment of one's learning ability" say A. Kolb and Kolb (2009, p. 307). Believing one can learn develops a learning self-identity. A. Kolb and Kolb state that "most people don't understand their unique ways of learning and many have not thought about what learning is and about themselves as learners" (A. Kolb & Kolb, 2009, p. 305). It is important, says A. Kolb and Kolb, to understand how one learns and the learning process in the building of one's learning self-identity (A. Kolb & Kolb, 2009). A. Kolb and Kolb (2009) also state that individuals need to trust in the process of learning from experience, seek new experiences, learn from their mistakes and learn from others successes.

Instrumental and transformative learning

Whereby Kolb (1984) discusses the role of reflection on learning through experience, Mezirow (1990) provides a theoretical means of understanding different ways individuals can reflect on experience, the role of one's frame of reference to make sense of experience, and how

reflection can at times change individuals' frame of reference. To understand reflection on learning, one must first understand what is meant by learning. As mentioned earlier, Mezirow (1990) defines learning as "the process of making a new or revised interpretation of the meaning of an experience, which guides subsequent understanding, appreciation, and action." (p. 1). What we learn is dependent on our frame of reference. An individual's frame of reference is the amalgamation of all previous experiences. According to Mezirow (1990), our frame of reference is made of schemes and meaning perceptions. Schemes are "sets of related and habitual expectations governing if-then, cause-effect, and category relationships as well as event sequences." (p. 2). For example, if we touch a stove and get burnt, we understand that the stove was hot. Meaning perspectives are "higher-order schemata, theories, propositions, beliefs, prototypes, goal orientations, and evaluations, and what linguists call "networks of arguments" (Mezirow, 1990, p. 2). Meaning perspectives take knowledge based on previous experience and uses it to interpret new experiences. Mezirow refers to this previous knowledge as assumptions thus emphasizing that what individuals believe to be true is actually a constructed belief, or assumption of something. For example, if someone says they are a priest, we may have a preconceived idea of what that person is, how they behave and what they believe all of which is based on previous experience and knowledge. Schemes and meaning perspectives create a frame of reference through which people can understand and interpret new experiences.

Mezirow (1990) differentiates between instrumental and communicative learning. Communicative learning is validated through critical discourse whereby instrumental learning is validated through feedback in the environment where task-oriented actions are done. This thesis focuses on reflection related to action. Such reflection can be done in direct conjunction with experience through action or it can be done during a longer period of time. Reflection is defined as an "assessment of how or why we have perceived, thought, felt, or acted" (Mezirow, 1990, p. 6). What is important is to differentiate reflective action from non-reflective or habitual action. Acting habitually or without thinking is non-reflective action. Otherwise, all action is

thoughtful action in the sense that it involves using the knowledge and skills that one has to decide on the action to take. Thoughtful action is also reflective when, for example, one analyzes a problem and asks what is the best way of solving it. However when an individual not only asks what is the best way of solving a problem but also questions their way of knowing and understanding the problems itself, that is to say their preconceptions about the problem and perhaps themselves, then Mezirow (1990) calls this perspective ex post facto reflection.

Many theorist divide reflection on learning into different levels, 'lower-level' and 'higher-level' learning (Fiol & Lyles, 1985), 'surface, 'single-loop' and 'double-loop' learning (Argyris & Schön, 1978). While instrumental learning is often a learning process that takes place within an existent frame of reference, transformative learning requires critical reflection in which one questions, reevaluates and changes presuppositions so as to create a new or revised frame of reference thus transforming or developing an individual (Mezirow, 1990). "Critical reflection is not concerned with the how or the how-to of action but with the why, the reasons for and consequences of what we do"(Mezirow, 1990, p. 13). Because critical reflection has the potential of changing presuppositions, and as such an individual's frame of reference, it also has the ability to change an individual's future behavior and actions. Mezirow (1990) also uses the term perspective transformation to describe when individuals change their perspective due to transformative learning. Instrumental reflection and transformative learning can be useful in the analysis of the data to gain further insight in the role of reflection on learning when students talk about learning associated with starting and running their JA companies.

METHOD

This chapter describes the general context in which the study was initiated, the study's sample and the design of the sample. This is followed by a presentation of the selection process, an overview of the data and a presentation of the interview guide. The section on data analysis describes the method used to analyze the data. Methodological considerations are discussed throughout the chapter, however the dual role of the researcher, the credibility and objectivity of the research, ethical considerations and limitations of the study's design are primarily discussed in the sections devoted to these topics.

Origin and financing of research project

This study has its origin in a research grant received in 2013 to pursue a doctorate program at Karlstad University in collaboration with Dalarna University. The grant was one of six similar grants financed by the combined municipalities in one province in Sweden. One of these municipalities also employs me as a business teacher at an upper secondary school. The municipalities' purpose of financing these research projects is to gain more knowledge in certain educational fields and to further develop education in their schools. This thesis is thus part of my licentiate degree. The general aim of my research, as specified on the grant application, was to study entrepreneurial learning with specific focus on students who participate in the JA Company Program. The municipalities' aim in financing this research is to gain more knowledge about entrepreneurship education and entrepreneurial learning. Inspiration for this research originates from personal experience teaching entrepreneurship and the increased focus on entrepreneurial learning as a result of the Swedish educational reform of 2011. The specific focus of this study, within the general aim specified in my grant application, has developed over time during my studies. However, it has not been influenced by the municipality that financed this study, the school in which I work, or any other organization. The grant stipulated that the research would be conducted during a four-year period between 2013-2017 during which time I would continue to work half-time as a business teacher. As such,

my time has been divided equally between teaching and being a doctorate student. My dual role as both researcher and teacher, as well as my own experience in business, has had an influence on this study which will be discussed later in this chapter under the title "Dual Role of Researcher".

Student sample

Each of the eleven students who participated in this study attended one of six schools located in three different municipalities in Sweden during the school year 2014-2015. The students attended seven different programs of study, four of which are vocational programs and three of which are college preparatory programs. Each student in the sample started and ran a JA company, together with one or more other students, who met the minimum requirements established by JA Sweden. Four students did their JA companies in their second year of upper secondary school while the rest did their JA companies in their third year of upper secondary school (which is also their last year of school). Students' businesses varied; four ran service businesses, four bought products which they then sold while three sold products they manufactured themselves. The students had different roles in their JA companies including president, marketing manager and financial manager. Some students had multiple roles in their JA companies. The students who participated in the study are listed below in table 1 together with information pertaining to each student.

Table 1 Information about each of the students in the sample and their JA companies.

Coded Name	Year	Program	Program	School	Town	Type Business	Students in each company	Students' role in their company
Sofia	3	Hotel & Tourism	Vocational	1	A	Service	5	Administrator
Felicia	3	Hotel & Tourism	Vocational	1	A	Product	4	Marketing
Ida	3	Hairdressing	Vocational	1	A	Service	4	Finance & President
Peter	3	Technical	College Prep	2	A	Manufactured product	4	Finance& shared President
Johan	2	Electricity	Vocational	2	A	Product	2	President
Klara	2	Business	College Prep	3	A	Product	2	Marketing & shared President
Matilda	3	Business	College Prep	4	A	Service	2	President
Sara	3	Natural Science	College Prep	5	B	Product	2	President & Finance
Anna	3	Natural Science	College Prep	5	B	Service	2	Finance
Markus	2	Carpentry	Vocational	6	C	Manufactured product	4	President
Karl	2	Carpentry	Vocational	6	C	Manufactured product	5	President & Production

Sample design

The sample was kept small because small samples allow the researcher to study a phenomenon in more depth (Miles, Huberman, & Saldaña, 2014). If more students were needed in the sample a third student would be chosen from the schools already selected, instead of selecting students from a new school, because the time span to interview students was limited. The participants in this study constitute a non-probability sample. The sample is small and not statistically representative of the total population of students running JA companies in Sweden. As such, this study cannot generate results that can be generalized for the entire population. Non-probability sampling

was used in preference to probability sampling because a probability sample of a small number of students may have resulted in a biased sample of students in which some characteristics where marginally represented or not represented at all. A non-probability sample allows for the selection of a small sample of participants which embody characteristics which can influence the phenomenon being studied (Miles et al., 2014; Ritchie & Lewis, 2003). Ritchie and Lewis (2003) maintain that a non-probability sample can include such characteristics as socio-demographics, behaviors, specific experiences or roles (p. 78).

The following five characteristics were selected in order to reflect some of the variation that exists in the total population of students who start JA companies.

1. Students' companies – only one student was chosen from each company in order to include variation in JA companies.

2. Type of business – service, purchased product or manufactured product.

3. Students' role in their company (president, financial manager, marketing manager, other)

4. Students' schools – choosing six different schools guaranteed a variation in teachers and school environments.

5. Students' program of study (half vocational and half college preparatory)

These five characteristics were chosen to vary among the participants in consultation with other teachers involved in the JA Company Program and individuals working in the JA organization. Although the sample has been designed to reflect variations between students, there are three criteria that were deemed important to make sure that all students met.

1. Students' started and ran JA companies that met the minimum requirements established by the national organization for the Junior Achievement Company Program.

2. Students' JA companies were comprised of a minimum of two students.

3. Students were taught by a teacher who was certified by Junior Achievement Sweden.

The first criteria above was required because the aim of this study is to gain more in-depth knowledge and understanding into what Swedish upper secondary school students perceive they learn, and the factors that students perceive affect learning, when they start and run JA companies that meet the minimum requirements established by JA Sweden. The inclusion of the second criteria was necessary in order to see if students perceived any skills that were associated with working together with other students in their JA companies. This was deemed important because most JA companies consist of two or more students. The third criteria ensures that all the students in the sample are taught by a teacher who has been instructed in the rules and requirements that students must abide by when starting and running a company within the JA Swedish organization. Beyond this, the study does not assess the knowledge of each teacher regarding entrepreneurship or the JA Company Program.

Selection process

While the previous section describes the criteria used to select the students within the sample, this section describes how, and in what order, these criteria were used in the selection process. This section also explains how and why the final sample deviates slightly from the original design. The selection process included the following steps in the order given; selection of a province in Sweden, selection of municipalities within the province, selection of teachers within the three selected municipalities, and finally the selection of students taught by these teachers. The province was chosen because school

directors from this province expressed an interest in the study when it was presented at a conference in the spring of 2014 and because the province included three municipalities that combined included a number of upper secondary schools which, during the academic year 2014-2015, were offering the JA Company Program to students in a variety of vocational and college preparatory programs.

The study was originally designed to include two students from each teacher and only one teacher from each school. Thus, the next step in the selection process was to select teachers from six schools in the three municipalities already selected. A list of all teachers instructing students doing the JA Company Program from the previous school year 2013-2014 was procured from the JA regional office for the selected province in the fall of 2014. This list also showed which teachers had taken the JA company courses provided by JA Sweden. Although this was the most up-to-date list available, it was not always correct and was subsequently updated through e-mail and telephone contact with all upper secondary school administrators in the province and, when necessary, teachers during the fall of 2014. Six certified teachers (i.e. teachers who had taken the required JA company courses given by the JA Sweden) were then selected from the revised list of teachers taking into consideration what programs the students were enrolled in so as to achieve diversification with regard to programs of study among the final group of students who would participate in the study .[10]

After the teachers were selected, they were contacted by phone and informed of the study. During this initial contact, the teachers were asked if their students had formed at least four different JA companies, each company having at least two students, who had fulfilled the minimum requirements of the Swedish JA Company Program. There were two reasons for this condition. Firstly, if a teacher only had one or two JA companies in his or her class, students may have felt obliged to participate in the study. Secondly, participation in the study is voluntary and, as such, it was possible that none of the students in some

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[10] Not all teachers who teach students to start and run JA companies are certified. JA regional offices in Sweden are responsible for certifying teachers. Certified teachers have completed a course about the Junior Achievement Company Program.

companies would want to participate. Because the interviews needed to be done within a narrow time-frame, it was considered a good precaution to have a least four JA companies in every selected class. This condition however was unnecessary in that it was fulfilled by all the UF-teachers contacted. The teachers were then subsequently asked if they were interested in a personal meeting in order to discuss the study in more detail. Five of the six teachers were informed personally at their school to discuss the study and answer any questions that they might have. The remaining teacher discussed the study over the telephone. All the teachers who were contacted agreed to let me inform their students about the study. Of those teachers who were selected, three of the teachers taught students who attended college preparatory programs, two taught students attending vocational programs, and one taught students who came from both types of programs.

Thereafter the principals of each school were contacted and informed of the study. After receiving permission from the principals of each school, a meeting was set-up with each class to explain the study and its purpose. At that meeting, all the students were given a letter of consent explaining the aim and purpose of the project as well as ethical considerations. Principals and teachers had been provided with this same letter of consent before it was given to the students. The students were asked to read the document and sign it if they wished to participate in the study. Students under the age of eighteen were given a consent form for their parents to read and sign in the event they were chosen to participate in the study. Information was also collected from each student about the role they had in their company, the number of students in their company, and the company's type of business (product or service). All together 49 students wanted to be interviewed and signed a letter of consent. Sometimes no students from a JA company wanted to be interviewed. Otherwise it was common that only one or two students chose to participate from a JA company and not all the students.

The final phase of the selection process involved selecting two companies from each of the six schools. One student was then selected from each of the twelve selected companies. Selection of the students took into consideration the type of business that the students had and

the roles they had in their companies. This was done so that the final group of students would create a sample including students with different types of businesses (product and/or service) and different roles in their companies (president, financial manager, marketing manager, other). The selection process was otherwise random. This selection process resulted in a preliminary selection of twelve students from six upper secondary schools.

The selected students were subsequently contacted in order to inquire if they still wanted to participate in the study and to decide on a time and place for each interview. During this stage of the selection process five students opted not to participate in the study and one parent did not give their consent and as such the student could not be included in the sample. These students were replaced with other students in the same class/school except in two schools in which no other student in the same class wanted to participate when called. As such, two students from the other remaining four schools were requested to participate. A last minute cancellation by a student at the very end of the school year reduced the number of participants to eleven instead of twelve. However, the data already collected, and partly analyzed, in the eleven interviews was so rich that eleven interviews was judged sufficient to fulfill the aims of this study by myself and my supervisors. The difficulty in procuring students resulted in another slight deviation from the original design of the sample with regard to the students' roles in their companies. The students who took the role of president in their companies are more represented in the sample then students who took other roles (see table 1). In two of the companies, the students divided the role of president among themselves opting not to have one single leader of the company. Although the mix of roles that students had in their companies deviated from that which was originally planned, the final sample of students included at least two students with the three primary roles (president, marketing manager and financial manager) which students took when starting JA companies during the school year 2014-2015. (J. Hernhe, private communication, Februari, 2015). This was deemed sufficient for this study.

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Data and interview guide

The data is comprised of eleven transcribed interviews resulting in 206 pages of single spaced text. Each transcribed interview includes general information collected from each student in the beginning of the interview (for example student's name, age, program, number of students in the company, name of the company). Each student was interviewed once and the interviews were scheduled to coincide with the date in which the students were finished, or nearly finished, with their companies. All the interviews were conducted in a quiet, small school conference room. The interviews were recorded with a professional dictaphone with a special 360 degree microphone for optimal recording. The students sat in chairs usually on the other side of a small table. This distance was thought to provide enough space between the interviewer and the student being interviewed so as to allow the students to have their own space while being close enough to allow for engagement with the interviewer. Table 2 below presents a list of students' code names, the date and length of each interview and the number of transcribed pages that each interview resulted in. Male students were given male code names and female students were given female code names.

Table 2 – Code names of students in study, time and length of interviews and length of transcribed texts

Coded Name	Date	Length of Interview (min)	Number of Transcribed Pages
Sofia	150306	96	31
Felicia	150430	85	20
Ida	150506	58	16
Peter	150522	60	16
Johan	150601	42	13
Klara	150506	67	21
Matilda	150402	105	28
Sara	150508	43	17
Anna	150511	64	19
Markus	150508	70	14
Karl	150527	49	11

The semi-structured interview, which Bryman (2011) states is often called in-depth interviews or qualitative interviews, was selected as the most appropriate means of collecting data for this study for several reasons. Firstly the in-depth interview, according to Ritchie and Lewis (2003), allows the researcher to "achieve depth of answer in terms of penetration, exploration and explanation" (p. 141). The in-depth interview is also interactive giving the researcher the possibility to probe the interviewee with follow-up questions to "obtain a deeper and fuller understanding of the participant's meaning" (p. 141). Legard, Keegan and Ward (2009) identify four key features of the in-depth interview; combining flexibility with structure, the ability for interaction between the interviewer and respondents, the ability to explore topics fully and its ability to create new knowledge or thoughts. Thus the in-depth interview allows for the creation of a basic structure of questions aimed at exploring what and how students perceived they learned while providing both flexibility and follow-up questions to explore other relevant factors that influenced such learning.

Furthermore, it creates opportunities to clarify misunderstandings which often arise in conversations. Conversation, in the form of interviews, is considered here as the basic mode of knowing and of constituting knowledge (Kvale, 1996).

Cohen, Manion and Morrison (2011) point out that there are also unavoidable features of interviews that the interviewer must be aware of such as: degree of mutual trust, interviewer control, degree of interest, degree that the interviewee desires to share information, ability to understand the interviewee and the ability of the interviewee to express ideas and thoughts into verbal conversation. In these interviews, it is necessary to be aware of the possible barrier between the interviewer and the interviewee which in this case can be seen as adult versus youngster and teacher versus student. What is important, say Cohen, Manion and Morrison (2011), is to be aware of the problems that can, and often do, occur in interviews and to have methods to avoid, or reduce, these problems. There is always the risk of dominating the students in the interview situation because of the power asymmetry between interviewer and interviewee (Kvale, 2006). Some possible ways of reducing problems that can occur in an interview, and that were adopted in this study, state Cohen, Manion and Morrison (2011) is to think about the aims of the study, the depth of answers that can be expected, the level of education of the interviewee, the clarity of the questions asked and the degree of structure necessary in the interview. In the interviews, I have strived to be aware of these possible problems and to use various methods, such as those discussed above, to avoid, or limit, them as much as possible. I have tried to gain a rapport with the students before starting the interview and make them feel as comfortable as possible during the interview.

An interview guide was used by the interviewer to ensure that the general structure and content of the interview questions would be the same in all the interviews. The interview guide is a document made up of four parts. Each student was interviewed individually. The first part of the interview consisted of repeating the information which the students had received in writing such as the aim of the research and the students' right to discontinue the interview at any time without consequence. The students were also encouraged to ask for clarification

if they did not fully understand questions and to go back to previous questions if they thought of anything new which they wanted to add to their previous statements. The students were told that their interviewer was American who spoke Swedish with an accent but that the interviewer had been living in Sweden for 25 years and that they should feel free at any time to interrupt the interview if they did not understand something said and ask for clarification. Furthermore, the students were told that the interviewer had taught students to start and run JA companies and that the interviewer was aware of the structure of the project. The second part of the interview consisted of basic information about the students and their companies. It provided the interviewer with a little more information about each of the students' companies and it provided time for the interviewer and the students to gain some rapport with each other. The third part of the interview consists of three questions about learning. The students were informed that what they perceived they learned could refer to something new or something which was further developed. The first of the three questions asked the students what they perceived they had learned while starting and running their JA companies. The second question asked the students if there was anything that the students perceived they should have learned, or learned more about, when starting and running their JA companies. Follow-up questions were asked to further investigate what students said about what they learned and to gain more insight into perceived causes, or influences, students said affected learning. Finally, the students were asked if there were aspects of learning which arose from the interview which they had not previously reflected upon. At the end of the interviews, the students were asked if they understood all the questions and if, during any part of the interview, the interviewer said something they did not understand and if so how they reacted. All the students replied that they understood all the questions put to them and that if they had not fully understood a question that they had requested clarification. Furthermore, the interviewer often asked follow-up questions to ascertain whether the responses had been understood correctly or were as complete as possible.

Methods used to analyze data

The data is in the form of eleven transcribed interviews. Tholander and Thunqvist Cekaite (2009) state that the transcription process is part of the analysis process and is always selective and dependent upon the aim of the research being done. All verbal responses were transcribed as well as other utterances that were perceived to have possible significance to the aim of the study. The method used to transcribe the interviews is based on Research Methods in Education by Cohen, Manion and Morrison (2011). The data was coded in the qualitative analysis program NVivo 10 which was used to analyze and find various ways of understanding the data. The coding process was divided into two distinct phases; first-cycle coding and second-cycle coding (Miles et al., 2014; Saldaña, 2013). In the first-cycle phase of coding, segments of data were clumped together and assigned codes whereby in the second stage those codes were analyzed and grouped into "smaller number of categories, themes, or constructs" (Miles et al., 2014, p. 86). The aim of the coding process was to code any responses that appeared to be relevant to the aim of the study with particular focus on the research questions and the theories used in this study to analyze the data. Data that was not pertinent to the objective of the study was not coded. As Silverman (2010) points out, in coding the data one makes "analytical choices" which creates "a specific way to see and understand the phenomena" (p. 280).

Different methods were used to analyze the data for each of the three research questions. First and second coding was used to identify what students said they learned in the program NVivo 10. These codes were later classified as general and business skills. Two methods of analysis were used to analyze the second research question on factors that students say affect learning. The first method was a coding process in order to identify all instances students said something (later called factors) that affected their learning. Secondly, situated learning theory by Lave and Wenger (1991) and experiential learning theory (1984) were used to investigate students' learning through doing tasks situated in different contexts and the contextual nature of the learning factors that students talk about. The third research question investigates how one can understand students' reflection on their

learning when students start and run JA companies. This is partly analyzed using Mezirow's (1990) theories on instrumental and transformative learning and concepts within the theory of experiential learning by Kolb (1984) and A. Kolb and Kolb (2009) to understand how students' learn through reflection on new experiences through active participation in their JA companies. Coding of the data for instances of reflection also revealed other themes. The theories used in the analysis process were found to best analyze and further understand the data. Action based theories of learning such as experiential learning theory, and the situated nature of learning reflected in situated learning theory, can be found in previous research on learning associated with doing companies and mini-companies (Dwerryhouse, 2001; Svedberg, 2007).

A constant awareness has been necessary in the coding of the data so as to allow the data to guide the coding process rather than "force-fit the data into preexisting codes" (Miles et al., 2014, p. 81). When applicable, the same text was given two or more codes. This method of simultaneous coding can provide insight into any discernable links between codes as well as possible causality between codes (Miles et al., 2014). In some cases, a code contains statement from all, or most of the students, who said something that was relevant to that code (learning to work together, for example) while in other cases only a few, or perhaps one, student said something which created the code. In order to check that false codes were not created, or that some codes were missed, all of the interviews were recoded from the beginning. Although this process confirmed, in large part, the credibility and dependability of the codes found in the first coding procedure, the recoding procedure did result in the elimination of some of those codes. It also found statements from students that were incorrectly coded.

Methodological choices and considerations

This section discusses choices that were made in the design and execution of this study and the effect, or possible effect, of these choices on the study's results. The section begins with a background of myself, as researcher, and a discussion of how I have dealt with being both

researcher and teacher. It is followed by a description of various methods used in this study to maximize its objectivity, dependability and credibility. The section then ends with a presentation and discussion of limitations of the study resulting from the study's aim and design.

Dual role of researcher and teacher

In 2013, I began my research in the field of entrepreneurship education focusing specifically on Swedish upper secondary school students' learning associated with starting and running a JA company. During this study, and even previous to it, I have been teaching students to start and run JA companies. I have completed the courses provided by JA Sweden and was certified by the organization in 2010. My education also includes a bachelor's degree in business. Previous to teaching, I worked for several private companies in various positions one of which involved managing and running a small company. Because my background has provided me with specific knowledge about entrepreneurship, the JA Company Program, and students who start and run JA companies, it is important to discuss what affects it may have had on this study.

On the one hand, my previous knowledge and experience has assisted my research on many levels. It has helped me to better understand other research in this field and to understand the business terms and activities that students talk about in their interviews such as income statement, balance sheet, annual report, and marketing strategy. Having a better understanding of how students start and run JA companies has helped me to formulate follow-up questions during the interviews as well as analyze the data acquired from the interviews. As Kvale (1996) states, "good interviews require expertise – in both subject matter and human interaction" (p. 103).

However, having previous knowledge in a field that the researcher is studying can have an adverse effect on the research process and results. For example, there is a risk that during the interview process questions are not asked, and possible avenues of inquiry are not pursued, that other interviewers with no background in entrepreneurship or

entrepreneurship education may find worthy of pursuing. Being aware of my own preconceptions is an important step in minimizing their effect on this study. Johansson (1997) refers to this as reflexivity which is a process in which "researchers become more self-aware, and they monitor and attempt to control their biases" (p. 284). However, there is a degree of subjectivity in any qualitative study. For example, the creation of themes and sub-themes, although based on the interview transcriptions, is a subjective process. This subjectivity can be limited through various means such as peer review, participant feedback and inference descriptors which will be discussed in the following section.

Objectivity, dependability and credibility of the study

One of the primary concerns of any study is whether it has been designed and carried out in such a way that the findings are credible. In simpler terms, Lincoln and Guba (1985) ask the question: "How can an inquirer persuade his or her audiences that the research findings of an inquiry are worth paying attention to?" (p. 290). In this study, a number of steps were taken in an effort to increase the study´s objectivity, dependability, and credibility. This study adopts Miles, Huberman and Saldaña's (2014) definition of these terms whereby objectivity refers to the studies relative impartiality, neutrality and confirmability; dependability refers to the study's quality and auditability; and credibility refers to its trustworthiness.

Objectivity and confirmability have been addressed on many levels. All aspects of the study, such as method, data collection, and means of analysis have been described thoroughly, and in detail, which enables the reader to follow step-by-step the study's design and confirm its findings. The background of the researcher has been presented and the researcher has disclosed, to the best of his knowledge, how it may have affected the study. The transcribed interviews have been analyzed often and at different intervals in order to check for other ways of understanding the data that may not have been seen in earlier readings. Students were sometimes asked to confirm the interviewer's understanding of statements in order to minimize misconceptions during the interviews. Kvale (2006) refers to this technique as an "attempt to obtain consensual knowledge" (p. 485). When students did

not agree with my interpretation of their statements, they made corrections or further developed their own statement thus providing a more complete description or explanation. Johansson (1997) states that while checking the statements of participants "is not perfect, because some participants may attempt to put on a good face, useful information is frequently obtained and inaccuracies are often identified" (p. 285).

Various strategies were used to increase the study's dependability and credibility throughout the study's design and execution. Four informal pilot interviews, which were not recorded, and one formal pilot interview which was recorded and transcribed, gave a strong indication that the chosen method of inquiry was suited to the aims of the study. Feedback from the students who participated in the pilot interviews confirmed that the questions were clear and easy to understand. Furthermore, in addition to the eleven students interviewed in the spring of 2015, four more students were interviewed in the spring of 2016 in order to see if these students would provide other significant data that was lacking from the first eleven interviews. Although the students' companies from 2016 interviews had different business concepts, and had differing learning environments, an analysis of those interviews revealed that the data provided by the students was in line with data from the interviews from the previous year. Miles, Huberman and Saldaña's (2014) refer to this type of dependability of data as when "findings show meaningful parallelism across data sources" (p. 312). Because of these strong parallelisms, the interviews from 2016 were not included in this study.

Descriptions of students' accounts in the form of quotations, sometimes referred to as inference descriptors, have been used extensively throughout the results chapter so as to give an accurate depiction of students' original statements (Johnson, 1997). Quotations allow the reader to experience the students' statements for themselves and compare the interpretation of students' statements provided in this thesis to their own interpretation. The quotations from students presented in the results chapter have been spot checked by colleagues to check for accuracy. When applicable, different variations of students' views have been presented, as well as conflicting views from students.

These variations, or conflicting statements, have been examined and accounted for. When the meaning of students' statements is unclear to the researcher, several alternative interpretations of the data are presented. The study has been reviewed by supervisors, other researchers and colleagues who have checked the quality and accuracy of the study as well as its assertions, theoretical constructs, and conclusions.

Limitations of the study

The aim of this study is to gain more in-depth knowledge and understanding into what Swedish upper secondary school students perceive they learn, and the factors that students perceive affect learning, when they start and run JA companies that meet the minimum requirements established by JA Sweden. However, there are several limitations that are a consequence of the study's aim and design. Most importantly, the results of this study can only reflect the views given by the eleven interviewed upper secondary school students and are not representative of the total population of students who participate in the JA Company Program. This study cannot ascertain what these students actually learned but only present and analyze what they perceived they learned. Thus, the study investigates and reports the perceptions of students' skills and does not investigate or measure their competence in the sense of what they can actually do. Students' ability to articulate their thoughts, and their desire to share information with the interviewer, also affects the quality and content of the students' information. Furthermore, learning may have occurred which students could not remember at the time of the interview or which students were not aware of.

The variables used to include, or exclude, students from being selected may also have had an impact on the results. There is a small portion of students who start and run JA companies by themselves (P. Ekstam, personal communication, June 9, 2017). Exclusion of these students may have had an effect on the data. Furthermore, although the selection process did ensure variation of variables such as the students' schools, municipalities, types of businesses, programs, and roles they had in their companies, the sample of students in this study is small

and does not represent all the possible variations of JA companies in Sweden. The time lapse between various stages of the students' participation in the company and the interview can also have an effect on the data. The interviews were conducted at the end of the school year approximately seven to eight months after students started their JA companies. As such, the students may have forgotten events and actions that took place earlier.

Another limitation of this study is the geographical area in which students were selected which was one province in Sweden. It is unknown whether the results of this study would have been affected had students from other provinces in Sweden been selected. It is also important to note that the participants in this study are Swedish and attend Swedish upper secondary schools. As such, these students are influenced by the local and national context in which they live and study. Thus although the JA Company Program is done by students world-wide, the results of this study are limited to each individual participant within local, regional and national boundaries. Lastly, it is important for the reader to remember that only students who fulfilled all the requirements set forth by JA Sweden were included in the sample. Thus, students who did not complete all parts of the JA Company Program were excluded. This limitation is intentional because the study only investigates students who have completed all aspects of starting and running a company as defined by JA Sweden. If the study included any student who started the JA Company Program, but did not necessarily do all parts of the JA Company Program, the results may have been different.

Ethical considerations

The study has been partly financed by the municipality in which I am employed and the Center for Pedagogical Developmenat at Dalarna University. Although the municipality and the Center of Pedagogical Development at Dalarna University have periodically been informed of the general progress of this research, they have had no influence on the direction this research has taken, its design or it's execution. All interviews have been treated confidentially and in accordance with the

Swedish Research Council's ethical guidelines (Swedish Research Council, 2017). Information about the study was discussed, and given in writing, to the students' teachers, and their principals, in all of the selected schools. The consent of the principals, and the students' teachers who were responsible for the students' JA company projects, was procured before speaking to the students. Letters of consent were procured from all of the students who participated in this study as well as from their legal guardians when the students were under the age of eighteen. The students, and when relevant, the parents were informed about the intention of the study and how the results of the study would be used in the future. Furthermore, I had no professional or social ties with any of the students who were interviewed or with students in those classes who were informed about the study and who could have been selected for inclusion in this study.

The students were informed that steps would be taken in order to minimize the possibility of being recognized as a participant in this study as well as any other future publications or presentations based on this study. The names of the interviewed students have been changed as well as any other names of people or places that could possibly alert the reader as to their identity. Furthermore, some other information has also been altered or omitted, such as names of products or services, in order to protect the identity of the interviewees. As Miles, Huberman and Saldaña (2014) state, it is better to "err on the side of protecting anonymity, if it has been promised, and to rely on dialogue and negotiation for corrective action" (63). However, the changes that have been made to the data do not, in the opinion of the researcher, influence the readers' ability to understand its meaning. The recordings of the interviews are kept in a secure location and the transcribed interviews are kept in a computer that is protected by a security program.

Another issue that has been taken into consideration in all contact with students is the issue of power between interviewees and interviewer. In this study, there are several significant differences between the researcher and the interviewees for example; student versus teacher, interviewee versus interviewer, and adolescent versus older adult, all of which may create a power issue between the interviewer and the

interviewee. The qualitative research interview, states Kvale (2006) "is a one-way dialogue, an instrumental and indirect conversation, where the interviewer upholds a monopoly of interpretation" (p. 484). Therefore, it is important for the researcher to be aware of the issue of power between researcher and interviewee with all contact with potential interviewees and later with those individuals selected for the interview process.

RESULTS

The results chapter is divided into three parts. Each part focuses on one of the three research questions presented in the introduction. Students' transcribed interviews comprise the data that has been analyzed and presented in this chapter. The data was coded using the computer program NVivo 10. Situated learning theory (Lave & Wenger, 1991), experiential learning theory (A. Kolb & Kolb, 2009), and Mezirow's theories on reflection on learning (Mezirow, 1990) presented earlier in this study have been used to analyze and better understand the data. The purpose of this chapter is to provide an analysis of the data to gain more in-depth knowledge and understanding into what Swedish upper secondary school students perceive they learn, and the factors that students perceive affect learning, when they start and run JA companies.

The analysis is based on my interpretation of the data. Specific examples and quotes from students that I have translated into English are added throughout the chapter. Quotes provide support for my analysis of the data presented in this chapter. They also provide the reader the opportunity to interpret students' statements themselves, and to compare my interpretation of students' statements with their own interpretations. Quotes from students also provide insight, and information, about individual students in the study in contrast to broad statements that summarize many students learning. Furthermore, examples and quotes can provide other information such as the context in which learning took place. As such, quotes can provide the reader with a broader or deeper understanding of what, and how, students perceive they learn when starting and running their JA companies.

The grammar and sentence structure of the quotations presented here have not been significantly changed. This allows the reader to experience not only the content of the statements given by the students but also the language. However, minor changes have been made from the original transcribed texts in order to make the quotations easier to read. These changes include the omission of double words or phrases as well as utterances such as 'ahh' and 'mm'. When text has been omitted in the middle of a quotation, the symbol '...' is used. When

students state the name of another person, the person's name has been replaced with the letters 'xxx' to protect the anonymity of both the students who were interviewed as well as the person or persons named by the students. Furthermore, the names of other things such as products, services, and companies have also been changed or replaced with 'xxx' for the same reason. In some cases, it is not clear what a word means in a quote because the quote has been taken out of its full context in the transcribed interview. In these cases, the word is explained within brackets [ ] directly after the word. Larger quotes are placed as a separate paragraph with smaller margins. In those cases that a dialogue between the interviewer and a student have been presented, students' statements follow the letter S and the interviewer's questions or statements follow the letter I.

What students perceive they learned

An analysis of the data reveals that students say they learn a profuse number of skills. The skills were identified using the definition of skill as varying degrees of proficiency to use knowledge to do tasks. Thus, everything students say they learn through doing activities in their JA companies has been coded as a skill. Students were asked what they learned, or further developed, so the word learn in conjunction with skills can mean new skills such as how to do bookkeeping or the further development of a skill such as communication or planning. The word skill and competency, which are considered synonymous in this study, were not used in the interviews by the interviewer so as to avoid any misinterpretations on the part of students as to their meaning. An analysis of the students' transcribed interviews reveals that the students never use the terms skill or competency. Furthermore, only four of eleven students use the term knowledge, and this term is only used once by two students, twice by one student and three times by one student.

These skills were further analyzed based on the concept by such scholars as Chell (2013), Spenner (1990) and Solstad (2000) who contend that skills are grounded in both context and tasks, and that skills can be thus divided into general skills that apply to many tasks

and context specific skills that apply to specific tasks and contexts. This further analysis showed that the skills identified in the data fell within two distinct categories: general skills and business skills. General skills are defined as skills that are not specific to a business context such as planning, working together, and communication. Skills that are specific to starting and running a business such as accounting, marketing and finance are presented under the category business skills.

General skills are presented first starting with an overview of the general skills each student says they learned. Each general skill is then presented with examples and quotes in order to show different aspects of the skill that students say they learned. How each skill was coded as that particular skill is also described and has been checked against lists of general skills in pertinent literature (Bacigalupo et al., 2016; European Commission/Enterprise and Industry Directorate-Gereral, 2005; Falk-Lundqvist et al., 2011; Skolverket, 2010). Business skills are only briefly presented and defined in this section in order to provide the reader with a complete picture of what students perceive they learn when they start and run JA companies. Definitions of business skills are based on various literature on entrepreneurship and business (Chell, 2013; du Toit, Erasmus, & Strydom, 2011; Lindqvist, 2014; Schlais, Davis, & Schlais, 2011). Examples of what students say they learn regarding business skills are not presented with each business skill in this section because these examples are presented in the next section of this chapter titled "Learning resulting from doing tasks". An overview of the business skills students say they learned is not provided because all the students said they learned, to some degree, something about each of the business skills that are presented. Although there is one example of a student who did not do accounting or financial reports, the student does describe some involvement in these activities even if it is minimum.

General skills students perceive they learned

This part begins by presenting a table that provides an overview of the general skills each individual student perceived they learned. Each general skill is then presented separately beginning with a definition of

the skill followed by a presentation of different aspects of learning the skill provided by students. The purpose of this in-depth description of general skills is to present variations and nuances of learning students associate with each skill that was revealed during the analysis of the data.

Overview of general skills students perceive they learn

The table below indicates with an (X) when a student talked about learning a skill in the interviews. If a student does not talk about learning a skill then the square is blank. There are cases in which it is evident from the transcribed interviews that a student used a skill but did not talk about learning, or further developing the skill. In these cases, it is assumed that the student did not further develop the skill during the process of starting and running their company and as such the square for that skill and that student has been left blank.

Table 3 Skills students perceive they learned when starting and running their JA companies are indicated with an (x).

Code names of students	Johan	Anna	Matilda	Felicia	Klara	Sara	Karl	Peter	Sofia	Markus	Ida
Working together	x	x	x	x	x	x	x	x	x	x	x
Oral Communication	x	x	x	x	x	x	x	x	x		x
Written Communication			x		x	x		x	x	x	
Problem Solving		x	x			x			x		
Creativity			x			x		x	x		
Oversee	x					x	x				
Meticulous		x		x			x				
Planning	x	x	x			x	x	x	x	x	x
Taking responsibility	x			x	x		x	x		x	x
Self-awareness		x		x		x	x	x			x
Self-confidence	x	x	x	x	x	x	x	x	x	x	x
Perseverance			x								

Working together

An analysis of what students talk about when talking about learning to work together revealed three different types of skills; cooperation, managing conflicts and motivating others. Cooperation here is defined as all instances when students talk about learning to work with one or more students in their JA companies. Students who talk about cooperation talk about learning to share control, responsibility and decision making with the other students in their company. "It's about giving and taking," says Sofia. Some students explain that it is difficult not to have control.

> … I have always been pretty strong-willed. I often get my way. But now when we are working together in a group, I have learned that perhaps one needs to take a step back and that it is not just my will that counts (Felicia).

Some students explain that it has not been necessary for them to cooperate in past projects. They state that it has been possible for them to do their own work and then present their part of it afterwards. Lastly, students also talk about learning to come to agreement with each other, and not just say yes to avoid a conflict. When speaking about the process of finding a business idea, Felicia states, "I don't say yes just so the others can get what they want but because I also want it."

The need to learn to manage conflicts is another skill that is attributed to working together. Managing conflicts refers to any situation in which a student talks about finding solutions to disagreements with other students in their JA companies. Students in this study express learning to have a reduced fear of conflicts, an increased understanding of how to work together with others despite conflicts, and a better understanding of how to deal with conflicts. For example, Sara talks about learning to deal with conflicts with her partner because her partner had a higher sales goal then she did. Conflicts arose when Sara did not want to spend as much time on sales as her partner. Klara exemplifies another situation. She was good friends with her partner but conflicts brought an end to their friendship.

> We are not good friends any more. … One learns to work with people even if they perhaps do not get along so well with each other but you know that one must still do it … You focus mostly on what you need to do and not on the person. … This is not something you would have learned in another school project … because you are not forced to work together in the same way (Klara).

While Sara and Klara say they learned how to manage conflicts in their JA companies, Ida did not. However, Ida says she learned to be less afraid of confrontation and the importance of thinking about what she wants out of working together with others when choosing future partners. Some students, such as Felicia, also said they learned the importance of setting in place a procedure, agreed upon by all the students in the group, that would be set in motion if a conflict between members of their group occurred.

Lastly, several students talked about the importance of motivating each other in their JA companies. Motivation is defined in this study as the act of persuading another individual or individuals to do something. Students talk about learning different methods to motivate other students in their JA companies. Sofia describes speaking nicely to other students in her company in order to avoid conflicts and motivate other students to do their work. Felicia, in the passage below, speaks about putting pressure on other students while also giving them compliments.

> I can feel more that one puts pressure on each other more. But also that one praises each other in a better way. Not just in a negative way but also in a more positive way too. That's fun (Felicia).

In his role as president, Karl speaks about learning to adapt how he approached each student when he wanted to motivate them in his JA company.

> You need to adapt to each person. They function differently. Some may need more encouragement, other perhaps need a firm hand… You can't say the same thing to everyone in the group. That's something I have learned (Karl).

Peter, on the other hand, speaks about the connection between developing self-confidence and motivating students in his group. Peter says he further developed his self-confidence while starting and running his JA company which in turn helped him to motivate students to do their work; something he had not dared to do in previous school projects.

Communication

When students talk about communication, it is always in terms of either oral communication or written communication. Oral communication refers to spoken communication and written communication refers to expressing thoughts, information or ideas in written form. An analysis of what students talk about in relation to oral communication shows that they refer to learning three things: (1) learning the importance of communicating (both in terms of the need for communication and the importance of how one communicates information to others), (2) learning different ways of expressing information they wish to convey, (3) learning what to say, and not say, and to listen to others. When students talk about learning oral communication skills, they can talk about one, or several, aspects of communication presented above. For example, several students talk mostly about the importance of listening to each other and learning not to dictate their own ideas and wishes on others in their JA companies. "You learn to listen to each other. Take a step back," explains Felicia. Matilda talks about the process of reaching new ideas and joint decision making with her partner. The success of their joint cooperative work, according to Matilda, is also the willingness to discuss problems that arise in their company. Sofia talks about how she learned to communicate with others in her JA company in the following passage.

> It's more intensive when we work like this, close to each other. One starts to nag at each other. So one needs to be careful with what one says, in another way then if it had been a regular school project. Yes. So that has been something new actually (Sofia).

Sofia also talks about learning the importance of communication as well as collaborations skills. "I have learned that it is important to talk," says Sofia, "and that one has to see things from both sides and not just from one's own perspective".

However not all students were able to develop communication skills necessary to solve problems encountered when working together. As described earlier, members of Ida's company experienced substantial difficulties working together which led to the outcome that they eventually split-up. "It was mostly communication that causes it to collapse," says Ida. Ida also explained that much communication in her group was done through facebook which she learned was insufficient

to meet the communication needs of her group. Klara also says she had difficulties working together in her group but learned that it was important to communicate in such a way that did not make problems worse.

Students speak more about learning oral communication skills then written communication skills, but they also say that writing business reports took a great deal of time and effort. When students talk about learning written communication skills they do so in reference to writing business reports such as a business plan, half-year report and year-end report. When students talk about marketing, they do mention doing brochures, flyers, and facebook (all of which require writing) but they do not talk about learning written communication when doing those activities. Students speak about learning what information was included in business reports and how they were structured. Regarding the style of writing these reports, what students say the learn differs. Matilda talks about finding a balance between "professional but not too serious," adding that she learned that slang was inappropriate in these reports. Sara says she learned to be more meticulous about what she wrote and Peter speaks about learning, "how to express oneself" but says that he is use to writing reports because he has done so a lot in the technical program he is enrolled in. Many students say that writing about what they themselves did in their own JA companies was a new experience for them. Sara sums up what several other students say about writing these reports.

> Ordinary written work in school. Then you find facts that already exist. These reports that we write ourselves [business plan and year-end report]. There are more facts that we know about. … So we can go deeper and really explain what led to that and that. Because one has experienced it oneself (Sara).

When students talk about writing about their own JA companies, they talk about it affecting how they write their reports compared to other school reports. Few students talk about how this affected their writing but being more meticulous and being able to write an analysis of one's own successes and failures were mentioned.

Problem solving

Instances in which students talk about learning about the act, or process, of finding solutions to problems in their JA companies are presented here as problem solving. When students talk about learning to solve problems they do so as a general statement or in relation to problems they solved in a specific context such as finding ways to motivate other students who do not want to work, learning how to solve conflicts in their group, or learning how to get more customers to buy their products or services. Problem solving is associated with a myriad of other skills such as communication, social skills, business skills and creativity. As such, examples of problem solving are found throughout the results chapter. The nature of problems varies greatly which students attribute to the complexity of starting a business. Sofia, however, states that in her company many problems demanded immediate solutions and decisions which was a new experience for her.

Creativity

Learning creativity refers to any instance in which students use the word creative, or uses other words or phrases such as thinking in new ways, being innovative, or being imaginative, in reference to starting and running their JA companies. Students talk about creativity in reference to solving problems. These problems can be very simple or complex. Sofia talks about being creative when solving a simple problem of fixing the lights on the ceiling. Matilda, on the other hand, talks about the need to think of new variations of her business idea when they thought that the original business idea was not going to work. Marketing is another area in which students talk about finding creative solutions to more complex problems. Sara talks about finding a way of explaining what advantage buying her company's product was for potential customers. Matilda talks about finding creative solutions to attract customers to her event.

When students talk about the process of being creative, they can talk about a single act, such as fixing a lamp on a ceiling, or multiple acts that requires a longer creative process. Sara exemplifies this more complex creative process when she talks about learning to be creative when she developed her product.

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> You see a xxx [Sara's product] without a picture. Maybe it's boring. So then we thought, what can we do to make it more attractive. So then we thought, well. If one puts a picture on it. Then maybe it would be more attractive. But then there are so many xxx that have a picture on them … How can we make it even more special? These days, it's popular with quotes. OK, we'll put some text on the picture that has to do with the environment. … And then… we tried to find a picture. But then we thought that someone else may already have it on their xxx. So I have a friend who is really good at sketching. We created the picture ourselves. In this way, our product became more unique (Sara).

The statement above from Sara shows how one problem can require several steps to solve, each one requiring Sara to think about her product in relation to other similar products in the market place and then make decisions about the design of the product.

Oversee

One of the Swedish expressions that most often arises in the transcribed interviews is the expression 'ha koll'. For simplicities sake, the English word oversee has been used but this is an over simplification. The Swedish expression ' ha koll' means to 'to control'(my translations) (Allén et al., 1999) and, in these interviews, often has the connotation of being in control, to oversee and to have a holistic view of what is going on in the JA company at all times. The Swedish expression, ' ha koll' is often used either as a general reference as stated by Johan, "one needs to know everything that is going on" or in regards to a specific task such as the budget, money, or sales as Sara says, "you have to know how much you have sold".

Meticulous

Meticulous refers to when students talk about learning to be more detail-oriented or learning the importance of details when one starts and runs a business. The need to be meticulous is a skill that students refer to in regards to the entire project of starting and running a company and to specific tasks. Anna talks about having learned to have meticulous control over income and costs. Felicia, on the other hand, talks about learning to be meticulous when setting up her table at a sales event. "You have to think of everything. Every little space on the table," says Felicia adding later that developing this skill has helped her to be more meticulous in the papers she wrote for school.

Planning

Students often use the word plan when speaking about planning which is often described by students at thinking about what needs to be done in their JA companies, when and how. Students talk about planning in relation to all aspects of their JA company. "I have learned to plan better," says Karl who adds, "that has absolutely affected me in my everyday life." Students talk about planning all aspects of their JA companies including production, events, and sales. Many students talk about learning not to be overly optimistic about how long tasks take and learning not to wait too long before starting tasks. Planning is sometimes even associated with being meticulous.

Taking Responsibility

Like planning, students use the word responsibility when speaking about learning to take responsibility. Learning to take responsibility is expressed by the students in different situations and in different forms. Felicia talks directly about learning to take responsibility for marketing and sales.

> I have become more responsible. Now that I am responsible for marketing and sales and have responsibility over something …. I feel important in some way. I feel that I am needed (Felicia).

For Felicia, learning to take more responsibility is associated with having responsibility over part of the company and the feeling of being needed. Other students talk about learning other skills in which responsibility can be implied. For example, Klara talks about learning to work with her partner despite not getting along socially with her. Klara says this was necessary because she realized that she had a responsibility to customers, suppliers and others who were linked to her JA company. In some cases it is not possible to know whether the development of one skill is linked, to some degree, to further developing responsibility or not. For example, some students say they became more mature and one student says doing the JA company gave her the feeling of being a teacher in her role as president. Whether being more mature is linked to learning to be more responsible or not cannot be ascertained from these statements.

Self-awareness

All instances in which students talk about what they learned about themselves have been categorized as self-awareness. What students say they learn about themselves often differs. Sara talks about learning her own boundaries. As an example she says, "How much I dare to do things. Do I have the courage to go up to this person or not and ask if they want to check-out my product?". Felicia talks about discovering that she liked being a marketing manager. "It's fun that one gets to think, and prepare, and get people and things (for a job) … It's fun. And I discovered that I like doing things like this that I have not thought about before". Karl, on the other hand, talks about having insight about himself that he could start a business in the future. Peter explains in more detail what he has discovered about himself. "I have to say that I have learned a whole bunch both about myself and how I react in a company". When asked what he learned about himself, Peter talks about personal responsibility, learning to set aside time to do tasks and organizing work. Peter also says he learned about his strengths and weaknesses and how he reacts in different situations. Furthermore, Peter explains, "you have to learn to understand yourself before you can understand others," says Peter. "If you don't know how you function in a certain situation, you can't really understand what others want or can or whatever". Anna gives another way of interpreting self-awareness. Whereby the other students in the study talk about becoming aware of new found skills and abilities, Anna talks about the realization that she can be persistent and not give up when facing problems and set-backs in her company but is unsure whether being persistent was something she developed while starting and running her JA company, or already had but had not used to this extent before. "I don't know if I couldn't but I have never needed to before. I have never needed it in that way but I needed it then," explains Anna.

Self-confidence

Self-confidence refers to a belief in oneself and is usually expressed by students in conjunction with doing tasks. Students can use the actual word self-confident or self-confidence, or they can use words to express the meaning of believing in oneself such as 'dare to' or 'feel that I can'. The self-confidence to carry out tasks and communicate with people

outside of their school reoccurs often in the students' transcribed interviews. Students describe talking to people they do not know as a new experience. Anna talks about daring to instruct adults and calling people and fixing problems with a bill with a corporate customer. Sofia has a similar learning experience, "To actually dare to take that step and try to sell xxx. When we talk to our sponsors also. That is also when one steps outside of one's bubble and really dares". Johan says the experience of talking to people while starting and running his JA company has made him less shy.

Students also talk about gaining self-confidence in relation to their roles in their JA companies. Felicia talks about becoming self-confident in her role as market manager while Peter talks about self-confidence in relationship to his leadership role. "But leadership role. You have to sometimes feel that you have to undertake responsibility to get something done and that is definitely something that I have gotten more self-confidence doing this year that one has to dare tell them and get people to understand that this has to get done". Peter refers especially to the ability to get others in his company to realize what needs to be done and to get it done. Sofia does not talk about being confident in a particular role, but rather in being able to start a company in the future. "I feel that if I can manage this then I can manage my own company too," says Sofia. Other students are less specific such as Ida who expresses self-confidence as "taking more space and showing who I am kind of".

Perseverance

Perseverance is any example of a student talking about learning not to give up. One student, Matilda, says she was the type that wanted to win and gave an example of her determination to win in her sport but in her JA company she describes developing and understanding this skill more. The experience of overcoming obstacles in her JA company further developed her perseverance.

> Of course, I understand that you shouldn't give up without trying… But now it is so real. It is a real example that one, if one doesn't give up it will pay off. Often in any case. Which it did for us. So it is really good that we got this experience (Matilda).

Matilda also describes not giving up with finding new ways to solve problems. There is also the concept of a reward involved for not giving up. "It will pay off," says Matilda. From other statements by Matilda, the reward that she may be referring to is customer satisfaction, pride in the accomplishments in her company and the service her company provided and satisfaction of successfully overcoming obstacles.

Business skills students perceive they learned

The business skills students say they learn have been arranged in categories. Each category is presented below with an explanation for the composition of each category of business skills. Examples presented by students that provide further insight into the business skills that students say they learned is presented in another part of the results chapter titled "Learning resulting from doing business tasks".

Leadership

Leadership is considered a business skill in this study because students associate leadership with the role of president in their JA companies however it is acknowledged that leadership could also have been categorized as a general skill. Leadership is defined as leading other students within the JA company as well as the organization itself. Students who have the role of president of their JA company talk about learning skills such as how to motivate other students, keep track of all aspects of their JA company's business activities, planning and communication skills. Students who do not have the role of president in their companies usually do not talk about learning leadership skills but some students talk about not having the opportunity of learning leadership skills because they did not have the opportunity take on the role of president.

Marketing

Marketing is defined as any task that involves or affects selling a product or service to customers. Students talk about learning marketing research, advertising, pricing, sales, customer relations, service and exhibitions. They also talk about understanding the

importance of having a product or service that customers want to buy and further developing their products and services to meet customer demand.

Business reports and financial skills

Business reports are written reports that provide such information as a JA company's business idea, organization, product or service, marketing, and finances. There are three types of business reports in the JA Company Program: business plan, half-year report and end-of-year report. All students in this study did a business plan and end-of-year report while some also did a half-year report. This category also includes all financial statements such as liquidity report, income statement, and balance statement. Students perceive having learned, to different degrees, these skills but learning is often described as insufficient for the needs or expectations of the students and in some cases learning is described as being very limited. Financial skills is a term which in this study refers to skills that involve learning how to do financial activities such as banking, financial calculations and assessments, accounting, and sending bills to customers.

Business Idea

The definition of a business idea is the process of finding, evaluating, and choosing a product(s) and/or service(s) students decide to sell to customers. A business idea can consist of one or several products and/or services or even a combination of products and services, however in this study students' JA companies sell either products or services. One of the first tasks students must do when starting their JA companies is to decide upon a business idea. When talking about the task of finding a business idea, students talk about the process of finding a product(s) or a service(s) which they can sell to individuals and/or companies.

Product and service

A product is a physical good that students either produce themselves, such as a salad bowl or table, or a physical good that students buy and

then resell. A service is work that students do for customers. Examples of services are changing tires, repairing computers, or helping other students get summer jobs.[11] Business skills related to product and service refer to business skills that students say they learn related to creating, or improving their products or services. When students speak about business skills associated with product and service they talk about such areas as production, product design, control of costs, and design of their service. Because a company's product and service is directly related to customer demand, most business skills learned in the creation of students' JA companies are also marketing skills.

The Entire JA Company

Many times students describe learning the entire process of starting and running a JA company. Students talk about learning different stages a company´s development, learning and understanding what a company is, learning what is involved in starting and running a company or understanding the complexity and difficulty of starting and running a company as a result of doing their JA companies.

What students say affects learning

When students talk about what influenced them when they learned skills while starting and running their JA companies, they talk about a myriad of factors such as time, joint ownership, money, teachers, and deadlines as well as the business tasks they did. All the factors students spoke about were analyzed and subsequently grouped into two categories; learning resulting from doing business tasks and factors that students perceive affect their learning when doing business tasks. Business tasks are defined as all the activities students do in order to start and run their businesses. The first section presents in more detail a description of each of the factors students say affect them when starting and running their JA companies together with statements that explain how and why these factors influence students learning. The

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[11] None of the examples given here reflect products or services sold by students in this study.

second section presents the different business tasks students say they did and the business and general skills that students say they learned while doing these different business tasks. Examples of the business skills students say they learned are provided in this section.

Factors that students perceive affect their learning

Many times during the interviews, students talk about developing skills such as taking responsibility, solving problems or being creative when starting and running their JA companies. Other times they speak about learning a new skill that they had not learned before such as writing a business plan or selling a product or service. When asked why they learned, or further developed, these skills, they often replied that the JA Company Program was different from other projects they had done previously. They talk about factors such as time, pride of ownership, money, division of labor and responsibility. Students' perceptions of the JA Company Program, in this study, refers to how the students perceive the project and not the actual rules and regulations that the JA organization has established to govern the JA Company Program. However, it is evident from the students' statements that the JA organization does have an impact on how students perceive the project in that they create rules, regulations and standards for the JA Company Program.

When students explain why they perceive that the JA Company Program is different from previous school projects they had done, they compare the JA Company Program to all other projects that they had done in school (i.e. from the time they started school to before they started the JA Company Program). Therefore, it is necessary to present students' perceptions of the JA Company Program in relation to their perceptions of other school projects in order to better understand the students' point of view. Table 4 below presents a summary of the students' perceptions of the JA Company in comparison to their perceptions of other school projects they had done previously in school. Some students talk about all of the points in table 4 below while others do not, however it is important to note that none of the students contradict any of the information provided in this table. The adjectives less, more, and much more are used to reflect the students' account of

the differences between the JA Company Program and other school projects they had done in school. The students were not asked to rank, in order of importance, different aspects of the JA Company Program. As such, all the factors that students talk about are presented in no particular order in table 4.

Table 4. Summary of students' comparison of the JA Company Program and other school projects previously done in school.

Aspects of school projects students talk about	Students' perceptions of previous school projects	Students' perceptions of JA Company Program
Project's time span	2-5 weeks	One school year
Amount of work	Less work	Much more work – especially work done outside of the classroom
Number of tasks	Less	Much more
Degree of complexity	Less	Much more
Assessment of the project	Some say grade, no other comments	Grade, money, competitions, customers, self-assessment, pride of ownership
Deadlines	Can be flexible, often not enforced	Less or not flexible, enforced by JA organization or feel pressure from customers and others outside of school
Engagement in project	Less	A great deal
Joint ownership	Can work individually if group not functioning or if one wants to. Do not have to be dependent on others in group.	Students able not able to control project alone, requires more joint decisions. Members of group more dependent on each other
Division of labor	No pre-assigned roles such as president or marketing manager.	Students decide together who should have different pre-assigned roles such as president, or marketing

	Students decide on division of work.	manager. Division of work often influenced by students' role in JA company.
Autonomy of decision making	Less	Much more
Responsibility to others	Less	More – to customers, to partners in company, etc.
Learning by trial and error	No data	Learn through trial and error
Seriousness of project	Less – regarded only as school project	Much more – regarded as both school project and real company. Involves money, customers, business people
In school/out of school	In school	Both in school and out of school- much learning is associated with doing tasks outside of school
Solutions to problems	A correct solution exists to be found by student	Multitude of solutions. No single correct solution.
Teachers	No data	Provide support, advice, and some instruction. Desire for more instruction.
Teaching Material	No data	Previous student reports, teaching material from JA Sweden
Parents /mentors	No data	Provide support

An analysis of the students' statements summarized in table 4 above reveal that there is a notable difference between how the students perceive the JA Company Program and how they perceive other school projects they had previously done in school. How this affects what tasks students do, and how the students view those tasks, will be presented below. Each factor that students talk about in table 4, are presented below in more detail together with statements from the students that illustrate their own view of the importance of these factors on their

learning. Sometimes when an analysis of the factors revealed that they coincide with, or are mutually dependent on, each other they are presented together.

Time, amount of work, number of tasks, complexity of tasks

Many students mention in their interviews that their JA company was much longer, involved more work, involved more tasks, and was more complex (complex meaning having many parts) than other projects they had done earlier in school. In fact, none of the students who talked about the issue of time had ever experienced a project that had been longer than five weeks making the JA Company Program a unique school experience for these students. Students' descriptions of learning are most often linked to doing tasks so there is a relationship between the number, and complexity of tasks, and the skills students say they learn or develop. Students also link the number, and complexity of tasks, in their JA companies to the large amount of work they say they do. Students' statements also reveal that these factors also affect students' learning both in a positive and a negative way.

Students perceive starting and running a company is a project that entails many different types of tasks such as developing products and services, trying new marketing strategies, and developing customer relations. In the process of doing these tasks during one school year, students talk about learning, or developing skills such as improving their communication, developing group work skills, developing their creativity and learning business skills. Having a school year to do their JA companies is, according to students, an important factor of learning skills as is the large number of tasks students do. Furthermore, students often talk about the need to do tasks simultaneously which, according to students, is a major driving force for the division of work in their companies. Students attribute learning the skill working together with the large number of tasks they need to do. They describe the need to discuss, coordinate, follow-up, and collaborate upon all the tasks that need to be done in the company during the school year. Some students also talk about learning the importance of keeping track of all the tasks that are being done, and that need to be done, in a company.

These students say they learn to have a holistic picture of their company and to have control over all the tasks being done.

Time, and the large number of tasks, are also factors that students say limited their ability to do tasks. Some students say that there isn't enough time to do all the things they want to do when starting and running their JA companies because of demands on their time from other school subjects and non-school activities. Other students give specific examples such as Markus whose JA company made their own product which they then sold. Since Markus, and the other students in his JA company, wanted to get income in their JA company as quickly as possible, they did not further develop their product as much as they wanted to. "The order came so quickly so they wanted it (the product) right away. After that we were satisfied with it (the product) too," explains Markus. Other students describe limited time as a reason for choosing a business idea too quickly. Some students say they were so concentrated on selling their products or services that they didn't write down all their sales transactions which led to problems doing their financial reports. Finally, students say that there is limited time to reflect on learning because they are too busy learning and doing all the tasks related to starting and running their JA companies.

Assessment of the project

The word assessment has been used here to mean how others judge the work students do in their JA companies, or how students judge themselves. Students speak primarily about grades when speaking about other school projects as well as self-assessment in the sense of wanting to do a good job. However, students' statements indicate that they put more importance on the success of their JA companies than on other projects. Furthermore, students speak little about grades but a lot about money, competitions, customer satisfaction, and pride of ownership when speaking about their JA companies. As Sofia says:

> Now it's not just about grades. It's about money. It's about our free time. It's about sacrifices we make. There is more at stake than if we had done a [regular school] group project (Sofia).

The phrase, "there is more at stake," that Sofia uses sums up what other students often say in different ways when talking about their JA

companies compared to other school projects. It is not just about grades according to Sofia. It's also about profits, her free time and other sacrifices she makes. Some students talk about feeling great satisfaction winning competitions that the regional JA organization arrange. A central issue for many students was that they perceive that it was their own business. As Anna points out, "But then it [the JA company] becomes your own trade mark ... so you want to take responsibility for it. How do you say, it represents you". Since a trademark identifies a product or service, I interpret Anna's usage of the business term to mean that her company is a reflection of her own work in her company and what she has accomplished. Students also talk about the importance of customers being satisfied with their JA companies. Feedback from customers provided an assessment of their work and in turn of themselves.

Deadlines

Other factors that students mention when explaining their perception on differences between their JA company compared to other school projects are deadlines. Students speak about two kinds of deadlines in reference to their JA companies. They speak about deadlines created and enforced by the JA organization such as deadlines for sending in business reports, competition submissions, and registration form. Students also perceive deadlines in their own companies. These deadlines are coupled to the different types of businesses which they are running and can entail production deadlines or promises to customers for services or merchandise. For example, Karl talks about the importance of keeping deadlines in regards to sales in his JA company. "It's because we need to make money on it (the product). If we don't produce it (the product) here now, then we won't get it sold because they (the customers) need it tomorrow." Students perceive both JA organization's deadlines, and their own deadlines, as inflexible, or much less flexible, than other school deadlines. Students talk about learning several skills in relation to deadlines such as group work, planning and responsibility. One example of this are students whose JA companies produced products. They talk about needing to work together, plan their work and take responsibility to get the work done and meet deadlines.

Engagement

The degree in which students are engaged in JA companies can, according to some students, also differ from other school projects. Anna states that for her, it is important that all the students are engaged in their JA company in comparison to other school projects in which this is not always the case. "It's like, how do you put it, both are engaged in a way that perhaps one is not always when one does project work in class," explains Anna.

Joint ownership

Students perceive joint ownership of their JA companies as being different from other school projects they do with other students. Students talk about owning a JA company together as opposed to doing other school project together. Ownership in JA companies is associated with profits and losses and a sense of the JA company being their own and not a school project created by their teacher. Students talk about being unable control, and do, everything that needs to be done in their JA companies because there are too many tasks to control and because everyone in the company has to be active in making decisions that affect the company's operations and finances. Students talk about learning skills such as communication, planning, and cooperation that are coupled to the way in which they perceive joint ownership and working together in their JA companies. For example, Sara says that their group needed to communicate a lot with each other because they had different opinions regarding their JA company. Students' perceptions of joint ownership in JA companies can be seen to be linked to many other skills that students say they learn such as leadership, conflict management and collaboration.

Division of labor

Students speak about learning skills while doing tasks that are associated with specific roles in their JA companies such as president, financial manager, and marketing manager. Students say that the roles they have in their JA companies give them specific responsibilities and tasks to do in their companies. For example, students talk about financial managers doing financial reports and keeping track of costs and income while presidents keep track of everything, plan, and

motivate other students. Students connect their roles in companies to learning. For example in his role as president, Karl talks about learning how to motivate other students, take more responsibility and keep track of everything that was constantly happening in his JA company. In her role as marketing manager, Klara talks about developing her self-confidence to meet customers and selling her product. Felicia has a similar experience.

> Since I am responsible for marketing and such…. I have had responsibility for our stand for example that we had at (our school's) open house. To design it (our stand) so it would show our product in the best way. I didn't know that I could do these kind of things. And meet customers and the like. Talk to them and get them to be interested (in our product) (Felicia).

Most students talk about learning in relationship to a specific role they had in their JA company, but some students say they divided all the work evenly despite different roles they say they had taken. Others say they shared work that was part of another student's role. Sofia even says that she took more responsibility than the president in her company and thereby learned a lot that she otherwise would not have learned.

Dividing work between students can also have a negative impact on learning. Students who are not given the chance, or take the chance, of doing tasks allotted to other students say they do not learn how to do them. Felicia suggests that students change roles so they can learn different skills associated with specific roles.

> … if we had different roles in our company so that we could experience a little of everything. For example, experience accounting or buying products or being president. Because these things I am not going to learn…(Felicia).

The skill set that most students specifically talk about not learning to their satisfaction, because they did not have the role of financial manager, was financial reports, book keeping and other aspects of their companies' economy. As Anna says, "I haven't done much accounting either. It's mostly xxx who has, you know, accounting. She's the one who is responsible for accounting".

Autonomy of decision-making

Students perceive that they have the freedom and responsibility to make their own choices in their JA companies. Students associate being able to make their own decisions with taking more responsibility in their JA company and having a stronger identification of self with their JA companies' accomplishments and failures. Autonomy of decision-making that students talk about include who to work with, choosing their product or service, choosing how to market and where to sell their products or services and what sales goals they want to have. Students in this study never say that teachers, mentors, parents or other individuals made decisions for them. As Felicia states, "We are the ones that decide how it goes for us." That students perceive that they can make their own decisions is something that many students say is important to them. "I think that it was rather good that we got to test and fix things for ourselves for a while," says Johan. Students talk about different ways in which this perceived freedom of decision making affected them. In the statement below, Markus relates freedom of choice in his JA company to an increase in students' ambition.

> JA is much freer. You can, in principle, do whatever you want. Start a company that you always wanted to start and make products that you want to make. It can be whatever you make it. You can make as much money as you want and … But school work. Regular school work. It's often the teacher who says what you are going to do and then it's just a matter of doing it. But I think that one's ambition is raised if you get to choose for yourself what you want to do (Markus).

Felicia talks about the need to think more for herself. Felicia notes that she can't get study questions from her teacher the way she does in other school endeavors. "We need to learn it ourselves," says Felica. "Get it done ourselves … It's a big responsibility."

Responsibility to others

Students talk about responsibility to others, outside of school, that they do not have in other schoolwork. When speaking of this kind of responsibility, students often refer to customers but can also refer to suppliers or other individuals with whom they are doing business. As Anna says, "You also learn that things need to get done. We can't ignore them. Even if it is hard. … You learn that you really need to take responsibility". One student even talked about having a legal

responsibility when running a JA company. Students can also talk about responsibility to others in their JA company because they were given a special task to do and role to play and other students in their company depend on them to do these tasks. Felicia was given the role of marketing manager in her company. "I have become more responsible. Now that I am responsible for marketing and sales and have responsibility over something…" Students who had the role of president of their JA companies expressed a similar feeling of responsibility.

Learning by trial and error

Students often speak about learning resulting from mistakes they made or tasks that they believe that they did not do well enough. The ability to do tasks again or improve on tasks appears, from the data, to be an important aspect of learning. Some examples are Sara who improved her product, and Sofia who improved her service, in order to increase customer satisfaction and sales. Another example is Johan who improved how he sold to customers when he realized that another approach was necessary in order to attract customers and sell his product.

Seriousness of the project

Many students also perceived their JA companies as being more serious and having more at stake than other school projects they had previously had in school. As Ida states, "Actually for me it feels as if working life is bigger than school … It feels more serious when one, like when one is an adult. There is not so much play." The word 'serious' is often used by students to describe how they perceive the JA Company Program. When students talk about the JA Company Program as more serious, or having more at stake, they often give reasons such as money, producing their own product, sales, customers and even legal obligations. Students have different ways of expressing their feeling of the seriousness of their JA companies. Klara describes her feelings about her JA company in the following way:

> S: It feels as if JA is more serious because it is a company that you own. You have to take care of a company and not. Schoolwork is like. Then you can go to the

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teachers and say what has happened and then they can say, "Oh ja. You can do it (the schoolwork) by yourself". Or you can get a new partner. But that you can't do in the JA course. Instead you have to finish what you started.

I: Because?

S: Because you have a company together. We wrote a contract that … It feels more real than other. … You manage money. Other people's money. You collect money. You can't just take money and run. … That's illegal. There are real laws that are involved. … You can be sentenced for that if you don't do what's right (Klara).

Whereby Klara associates many aspects of her JA company to her feeling of the seriousness of the project, other students focus on one aspect. Anna relates seriousness to the service she provides and the customers who have purchased her service: "Especially because we have had xxx [activities], we have been leading those xxx. And then we have been forced, and we have had them for adults. You have to be serious..."

School and out of school

Doing work outside of school has numerous effects on how students say they work and what they learn. Some students talk about group work being different in their JA companies because they do a lot of work independently outside of school and then they need to talk to the others in their group and tell them what they have done. Students often talk about learning skills doing tasks for their JA companies outside of school. For example, Klara explains why there are some things that she does not believe she can learn in school.

> You want to build up a sense of trust between you and the customer. It's not like that [in school]. That kind of training you don't get, … except when you are out in a company or are selling things or are doing such things (Klara).

Some students view their JA Company Program as something different from school while still being part of school. Matilda talks about this when she says, "It would have been another thing if we did this full-time, the company, but now school, job (job after school), and JA company get all mixed together." Ida also expresses the idea that her JA company is part of school and yet something separate.

S: … School is school I feel and then our company is something else over and beyond school. It's something else.

I: How is it something else?

S: Ah. I don't know really. It feels like they are two different things, although it (JA company project) is a school project actually because everything is part of JA.

Solutions to problems

Some students state that when they do school work, or projects, they feel that there is a correct solution to the problem or problems that they have been assigned to solve whereby in their JA companies they feel that their teacher does not have a preconceived solution to their problems or challenges but rather that there are multiple possible solutions that provide different results.

Teachers and teaching material

When speaking about their school, students often speak about their teacher or the methods and material their teacher used. Students talk about teachers providing two kinds of help: firstly support and advice to help them start and run their JA companies and secondly instruction in terms of business factual and procedural knowledge such as how to write reports or how to do a balance sheet or income statement. Although some students talk about the importance of teachers' support and advice on how to develop their JA companies, students do not talk about learning general skills from such support. Students mostly talk about learning business knowledge in form of factual knowledge and procedural knowledge from their teachers. In regards to learning business knowledge students' views differed.

Overall, students say teachers assisted them in learning about starting and running a business but some students wanted more information. Johan and Anna talk about wanting more information about how to do a logo as well as training in a computer program that would make their logo more professional. Sara, Ida and Felicia talk about wanting to learn more about different ways of marketing a product or service. Ida states that her teacher named different types of media for marketing like Facebook but did not discuss them. One student even talks about

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wanting more information about the different rolls students take in their JA companies.

> Teachers could have informed us a little more about each role. Not just which roles were available but a little more details about… So that one can find one that suits one best instead of, 'If you like to talk then you can be marketing manager. And if you are good at math you can be the financial manager' (Felicia).

Since teachers were not interviewed, it is not possible to ascertain their teachers view as to why some students perceived that teachers did not, at times, provide enough business knowledge. There are a multitude of possible reasons students give, or imply, that can account for what students say they do not learn enough such as the enormous size and complexity of the project, lack of time, lack of knowledge, or even that some students had more difficulty than others in understanding the information that teachers provided. One student, however, does suggest that teachers should bring in business people from outside of school with expert knowledge and experience that they could then share with the students.

In regards to educational material, students talk about getting different kinds of material from their teachers such as internet based instructional material and exercises published by JA Sweden, templates, reports and contest submissions written by students in previous years and finally a textbook on how to start and run a JA company written by Michael Lindqvist in cooperation with JA Sweden (Lindqvist, 2014). Anna talks about doing exercises on the JA organization's home page that, together with instructions and tests by her teacher, helped her learn how to do economic statements such as the income statement and balance sheet. Many students, on the other hand, talk about having trouble learning bookkeeping and economic statements.

> Teachers could go through it (economic statements) a little more thoroughly and such. Because we have not had so much of that. We had to learn a lot by ourselves. And then there is that economic educational material on JA's home page too but I don't think that one learns so much from them (Sara).

Many students say that they used reports written by students in previous years to construct their own reports. Reports done in previous years from other students, such as the business plan or year-end-report, or contest submissions (such as best product, best service, or

best logo) were provided by their teachers or by JA Sweden that publishes such reports from previous years. Students say that these reports were helpful in that they provided information about content, organization and style expected in such reports. Students such as Klara also voiced concerns about using previous reports.

> We get to read the reports from those (students) who won (competitions) in the previous year. … And it is really difficult to write something by reading someone else's work. … Partly from these previous reports and partly from a book we get. (Klara).

Most problems that students talk about in regard to using previous reports were learning financial statements that are included in the business plan and the year-end-report. Many students say they replicate these financial statements but they do not feel they understand them. This was confirmed during interviews when students could not explain the purpose of a liquidity report or a balance statement. Some students explain that they felt that the reports were similar to other school written reports in the sense that they were required by their teacher.

Although almost all information students provide in the interviews about teaching and teaching material revolve around business knowledge, Matilda talks about being taught to communicate with business people. Matilda needed to contact people in order to acquire resources for her company. In class, she was given a sales manuscript which was meant to help her learn how to structure this kind of communication but Matilda found the manuscript of limited value.

> What I thought was difficult was that, the sales manuscript. To make it personal. … to know how I was going to adapt it so that it worked for me. Because it (the manuscript) told you what you should say and a little how you should say it, but it didn't always fit those situations. It was just that I didn't feel that it gave me anything because I couldn't use it (Matilda).

Matilda explains later that experience contacting people in different businesses, interacting with them, and negotiating a contract helped her gain skills and abilities that she could not learn in school.

Parents and mentors

A few students talk about help they received from a parent or mentor but the information is, in most cases, very limited. One students talked extensively about the help she received from her father when she needed to contact someone about renting a location for an event. The assistance the father gave, according to the student, was very helpful to her.

Learning resulting from doing business tasks

When students talk about learning general and business skills, they relate learning to the overall task of starting and running their JA companies or to specific business tasks such as marketing, writing reports or working together. The exception to this is when students describe lectures from teachers about, for example, marketing, accounting or business reports or help they received from a parent or mentor. When students talk about learning business skills, they talk about, and give examples of, learning or further developing business skills, not learning business skills fully or not learning business skills as much as they wanted to. Students occasionally say they didn't learn a business skill at all but follow-up questions reveal that the student does talk about learning some knowledge and skill, however little, about the skill in question. This is often the case regarding financial statements.

I have organized the business tasks that students talk about into six specific tasks working together: leadership, marketing, business reports, financial statements and activities, business idea, product and service and the overall task of starting and running a JA company. Each business task consists of a description of the task followed by a presentation of what general and business skills students say they learn when doing the task. These categories of business tasks have been constructed based on my interpretation of what business tasks students speak about when they are speaking about learning a skill. For example, when students talk about learning how to talk to customers to convince them to buy their services or products, learning to talk to customers has been coded as communication skill and sales skill and these skills have been associated with the task of marketing.

Working together

Working together is both a skill that students say they learn and a task that they do. When students talk about the task of working together they talk about activities such as discussing, listening, coming to agreements, making decisions and doing tasks together with other students in their JA companies. Students do not talk about working together with other people outside their JA companies. Students give examples of working together at meeting, through e-mail and when doing tasks such as selling products, doing a service or writing reports. Students talk about learning general skills such as cooperation, managing conflicts and motivating others while working together. These general skills have already been presented earlier in this chapter. Students also talk about learning what working together means such as good communication, how to motivate other students in their company and further developing their listening skills. Through the task of working together with other students in their JA companies students say they gained more self-confidence and self-awareness.

Leadership

In this study, leadership is considered a task some students have in their JA companies when they have the role of president, or if they perceive they have taken on the role of leader without having the title president which was the case with one student. This student talks about taking an informal leadership role in her company and learning leadership skills. Students associate learning several kinds of skills with their role as president of their JA company. For example, Karl talks about learning to take more responsibility, learning to oversee what is being done and needs to be done, and learning to adapt how he communicates to students in his group. Peter talks about learning similar skills adding that the experience of being president of his JA company increased his self-confidence. "You have to dare tell them," says Peter, "and get people to understand that this has to get done." For these students, there is a definite connection between being president (or taking an informal leadership role) doing tasks associated with being president and learning leadership skills and general skills as a result of doing tasks associated with being president. Some students who did not have the role of president in their company expressed a

desire to have been president so they could have learned leadership skills.

Marketing

When students talk about tasks associated with marketing, they often talk about activities such as creating, distributing and/or publishing flyers, posters, home pages, facebook pages, logos, business cards, and marketing surveys. They can also talk about marketing as part of the process of creating and developing their product or service. Marketing skills that students say they learned through marketing activities vary. The following examples provide more insight into these variations.

Peter talks about learning that facebook was the best media to advertise his product while Johan talks about learning the importance of promoting his products. "You have to perhaps show yourself more ... put up flyers on notice-boards and make some advertising films," Johan points out. Felicia on the other hand says she knew that selling was part of marketing but also learned that having a logo and a business card was also part of marketing. Students also talk a great deal about personal direct contact with customers for example selling their products or services to customers at market places or over the phone. Some students talk about learning to sell as a set of steps to take. "You go out and stand there and check around and say, 'Have you seen our product?' Instead of just standing behind [a table] and let them go by. ... [you need to] catch their attention," says Johan explaining one thing he learned about selling. Students also talk about learning the importance of building relationships with customers and learning that sales sometimes do not occur as much as they expect.

Students who manufactured products talk about learning about the relationship between costs, production and price. As Peter states:

> You need to be with [the product] from raw materials to selling it. ... How can we save money and material so we have. For example, we have made them in two pieces so that one is able to use different dimensions and save a little money there. And when one thinks about saving time and how much longer time it takes to make it [the product] (Peter).

Peter explains a new understanding of not only how to save money on production but also how production costs affect pricing and thus sales. Markus, Karl, Peter and Sara talk about learning the importance of designing their products. Sara explains how she and her partner tried to think how to attract customers. "It got me thinking a bit more. What can I do to make my product more attractive," explains Sara.

Students also talk about developing general skills such as communication, creativity, solving problems as well as improving their self-confidence when doing marketing activities. Klara, for example, talks about learning how to communicate with customers when selling later providing an example of her sales pitch in the interview, "Hi. Have you bought? Are you going to buy a xxx [Matilda's product]? Are you interested?" Matilda explains how she developed her ability to solve the problem of too little sales at an event by using creative solutions to attract customers. Many of the students talk about developing their self-confidence to meet and talk to adults they do not know when selling products or services outside of school. As Klara says:

> Otherwise there are lots of barriers in your head that tell you, 'No, don't approach them. Don't do it. Don't say that.' But now I have gotten to practice it [talking to people] a great deal. So that is a personal development. That I have gotten better at talking to other people (Klara).

Students also speak about other skills such as planning when doing marketing processes. "You have to plan for the future and say who is going to buy what. ... Where should one be when one is going to sell? How can one make oneself seen and heard? No one is going to drive to your house and buy [your product]", explains Johan when talking about planning a selling strategy. Sara and Karl talk about learning the importance of understanding the market while Johan says that he learned about the weakness of market surveys which in his JA company gave a false positive indication of sales.

Business reports, financial statement and activities

Business reports refer to the three reports students did and talked about; business plan, half-year report and year-end report. All the students wrote a business plan and year-end report. This is a requirement from the JA organization. In addition, some students

wrote a half-year report often as a requirement for a competition but none of these students talk about their half-year reports specifically perhaps because these reports are short up-dates on their companies' progress. As described earlier, a business plan describes all areas of a JA company's business such as a business idea, description of product or service, organization, market and marketing strategy, and economic reports such as an income statement and liquidity statement. A year-end report states, and explains, the JA companies' major activities such as production, purchasing, marketing, sales, and organization. It also should include an income sheet and balance statement (Lindqvist, 2014). When students talk about learning what to write about in these reports, they talk about learning what information to include in the reports and how to organize the information included in these reports. These statements were often unstructured, incomplete, and not very detailed. Students often say they had a hard time remembering the different parts of these reports that they had written. For example, when talking about her business plan Ida says:

> I don't remember but it is like this ah. Yes every ahm, what is it called, role in the company. And then it is well the business idea then. And then kind of that it was. One should guess how much money one should make and … then I don't remember (Ida).

Students also talk about learning the financial statements included in the business reports such as the balance sheet, income statement, and liquidity report. Again, students' descriptions of these reports and their content were often unstructured and incomplete. Many students had trouble explaining what information was provided in these financial reports. Furthermore, students often gave incorrect information about the purpose of these financial reports. The category financial activities includes all other activities students talk about, other than financial reports in the business plans, that revolve around money such as banking, calculating prices, receipts and bills to customers. Karl describes learning the importance of keeping track of income from sales but also says that no one in his company fully did that task. He also describes opening a bank account on his own and paying bills as a learning experience saying that his mother had opened his own account. Students whose JA companies produced their own products talk about learning to calculate how to reduce production costs by choosing different material and production methods.

An analysis of all the business skills that students say they learn when starting and running a JA company reveals that financial reporting and other activities is the area students say they do not fully understand and want to learn more about. Anna says her JA company had no system for keeping track of receipts. Matilda says she would have liked to learn more about accounting and billing. Felicia says that the only economic activity she was involved in was getting start-up capital from investors. Otherwise, she said that she just heard that others in her company did the economic activities. However since Felicia says she was involved in doing all the business reports, that include financial statements, it is hard to know what Felicia means she did, and did not do, regarding financial activities. Follow-up questions also revealed gaps in students' financial knowledge. When Sara was asked whether she understood the purpose of a balance statement she replied, "I don't know. That was a good question. I don't think that I was told." When Matilda was asked whether she could do an income statement she replied, "No. Not really. I still have to really think about what I'm doing. I need to have a template next to me to use." One reason students often gave for not learning financial statements and other financial activities sufficiently was an over dependency on using templates and financial statements from reports done in previous years. Another reason was not enough classroom instruction and practice. Thirdly, students say that financial activities and reports were done by the student who had been given the role of financial manager. However, some students who did not have the role of financial manager did say they did some of the financial reports and other activities. These students were often presidents of their JA companies.

There are few general skills that students associate with business reports, financial statements or other financial activities. However, one general skill that students do talk about is learning various aspects of written communication when writing their business reports. For example, students talk about learning a new style of writing that is more detailed and professional. They also say that writing from their own experiences is different from writing other school reports. As Klara says, "You write in a whole different way. You write something that you have done yourself". When asked how this kind of writing was different

from what she had done before in school Klara replied after some deliberation, "Other things you write in school you set-up differently than how you write your report. ... It isn't the usual, first we need to write what kind of search we have done and all that stuff but rather this is something completely different". Matilda expresses a similar idea from a slightly different point of view. "I feel that I have learned to express myself like an entrepreneur. That I, as an entrepreneur, sit and write about my company. ... Before I wrote about some subject and [was told how to] from up above. Now I am right in the middle of it [running a company] but I still know how to express myself about my company." In regards to other financial activities, some students talk about developing their self-confidence when talking to customers about billing problems or bank personnel about opening a new bank account for their company.

Business idea

One of the first tasks students must do when starting their JA companies is to decide upon a business idea. When talking about the task of finding a business idea, students talk about the process of finding a product(s) or a service(s) that they can sell to individuals and/or companies. Students say very little about learning how to choose a business idea. Karl and Sara talk about learning the importance of surveying the market before choosing a business idea. As Karl says, "Now I know that I need to check things carefully if there are a lot of different things being sold. Put prices on everything. Otherwise one risks that one just does it later and then nothing gets sold." Learning that is associated with developing a business idea is presented in the section "Product and Service" later in this section of the study. Otherwise students talk about general skills they learned in the process of finding a business idea such as cooperation, creativity, problem solving, and self-awareness. For Felicia, the process of deciding on a business idea was part of learning to negotiate, discuss and cooperate with other students in her JA company. Matilda and Anna were both forced to reevaluate the business idea that they had originally chosen. Solving this problem helped Matilda become more creative as she herself states, "I dare to think in new ways you can say. Not getting stuck in one's first business idea." Anna had a similar experience however she talks about learning the importance of having

determination and flexibility in the search for a business idea. She learned the importance of letting go of one business idea in order to find a better one. Whether she had this ability or developed it while starting her JA company, she could not say for certain.

Product and service

The category product refers to any tasks which students talk about which involve producing a product or acquiring a product and the category service refers to any tasks which students talk about which involves creating, developing or doing a service. Of the eleven students interviewed in this study, four students sold a service, three students manufactured their own product, one student added something to a product they purchased, and the other three students bought a product that they then sold.

An analysis of what students say they learned in relation to products and services can be divided into three categories. Firstly, students who manufactured products learned specific skills related to manufacturing such as what materials to use, what tools and machines to use, solving production problems, designing the product, and how to make the production process more effective. Students who provided a service talk about learning, or learning more, about how to do the service they provided. Secondly, students talk about learning business skills in conjunction with the development of their product. Peter talks about learning the connection between production, sales and earnings. "Partly you have to sit down and calculate how much the material costs and how much is used. That is a very big part of manufacturing that it (the product) doesn't get too expensive to manufacture. Because one needs to compare what [other products] is already out in the market." Sara says she learned the importance of designing her product in order to be more unique which would make the product easier to market and sell. Students who provided services talk about learning how to market their services, make changes in their services so that they would be more attractive to customers as well as pricing their services. Some students say they would have wanted to learn more marketing and sales skills, as well as marketing research skills, in relation to their product or service. These students say they would have desired more classroom

instruction as well as lectures and training from people who work in marketing and sales. None of the students talk about learning about the purchasing process. Lastly, students talk about learning general skills such as problem solving, creativity, cooperation, motivation and leadership skills. These skills have already been described and exemplified earlier in this chapter.

Lastly, it is important to present one student who says that her service did not give her the opportunity to learn everything she wanted to learn when starting and running her company. Klara talks about wanting a more complex business idea. As Klara states, "The only thing we needed to do was to take orders from people, make an order with the other company [their supplier], and they send it… and get payment." For Klara, buying and reselling a premade product did not give her the same pride in her business. Furthermore, Klara states that she was unable to learn other aspects of entrepreneurship that are linked to production of one's own product such as product construction, production costs, and patent laws.

The entire JA Company Program

This category has different connotations for different students. It is whatever students mean when they talk about the entire task of starting and running their JA companies. Many students, such as Johan, talk about learning the different tasks that need to be done.

> Then we loaned money. Went in to the JA-home page and fixed insurance. And then we started to write. I think we started writing a business plan and such. Then we started a half-year report. Then we sold. Then we started our year-end report. We were at markets a little here and there (Johan).

Most students talk about an image they have developed about having started and run their own company. They say that starting and running their JA company was more difficult than they had previously thought. They speak about higher expectations, a great deal of work, everything taking more time than expected and that many things can go wrong unexpectedly. However, they also associate starting and running a JA company with pride of accomplishment, a feeling of being engaged and the satisfaction of having happy customers.

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There are also numerous general skills that students say they learn when talking about the entire task of starting and running their JA company rather than in relation to any specific task they did. Examples of these general skills are being more meticulous and creative, solving problems, keeping track of everything, taking responsibility, self-awareness and self-confidence. Students' descriptions of these skills will not be presented again here since they have already been presented earlier in this chapter.

Reflection on learning

Those parts already presented in this chapter describe what and how students perceive they learn when they reflect back on their learning during the school year that they started and ran their JA companies. This part of the results chapter provides other insights into how students reflect on what they learn and the effect of reflection on learning. The first part investigates how students describe different learning processes when they reflect on what, and how, they learn. The second part presents students' descriptions of changes in their preconceived way of thinking about themselves, others or other aspects of their lives through reflection as a result of their participation in their JA companies. The third part describes skills that students say they learned while doing their JA companies and used in other school, and non-school activities. The forth part describes students' perception of the importance of the interview as an opportunity for the students to reflect on their learning and possible problems and barriers students say prevented more reflection on what, and how, they learn while they are starting and running their JA companies.

Different descriptions of learning when doing activities

When students reflect over what, and how they learn when starting and running their JA companies, descriptions of their learning process differ. One difference is related to time. There are many situations that students say occur, when they are running their JA companies, that require them to act with little time for reflection. Students often say that this is the result of problems that occur that require a quick

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solution. These problems are often outside of school. Examples students give include situations when selling products or doing a service for a customer. Although there is little time to reflect, the data showed that some reflection took place either while evaluating the situation, thinking of different solutions in order to find the best one, or asking for advice thus acquiring new information to solve the immediate problem. Several students explained that this kind of reflection could also require some creativity in order to reach a satisfactory solution. Students expressed being unaccustomed working in this way. As Sara says, "You need to find quick solutions to problems all the time and this was rather new". Sara goes on to say that this is not something she had previously learned in school.

Most business activities that students describe doing in their JA companies were not done in haste. How students describe what they did, and how they thought, when learning skills differs. These descriptions provide different information about how students reflect on learning and students' learning process. For example, Markus talks about learning to calculate costs, to choose materials and to decide on an appropriate price that customers are willing to pay. This kind of reflection describes what he learned and why but provides no information about whether he got any feedback during the process in order to judge whether what he did was the best way of doing these business tasks. The task Markus talks about appears to be done once and there is no description of further learning of skills apart from those learned doing this task. This is in contrast to other examples that describe how external feedback provided information to students that helped them to evaluate, and subsequently make improvements, to their knowledge and skills. For example, Sara describes trying to sell her product without success. She provided reasons why customers and friends did not want to buy her product and how this feedback from customers made her think about her marketing, selling and communication skills. "That got me thinking again a bit and how I can make my product sound more appealing", says Sara. She then describes changes she made in both her product, her communication and her sales technique. These changes, says Sara, led to a better product, more sales and perhaps more satisfied customers. Sara's ability to reflect on

why customers did not buy her product resulted in a reassessment of her skills and knowledge.

There are also examples of students who talk about learning a skill because they repeat a task often. This is often in relation to such skills as cooperation, self-confidence and oral communication. For example Klara talks about learning to talk to people she does not know and building up her self-confidence and communication skills because she had contact with many customers. Anna has the same learning experience but through meeting lots of people when providing them with a particular service. There are also examples of students who talk about learning a skill when doing a task once but having wanted to learn it more. For example, Felicia talks about learning about doing business reports but would have wanted to learn more. Business reports, such as the business plan and year-end report, are done only once and there are no more opportunities to do this report again in order to gain more proficiency in this skill. Other tasks that most students say they did once and would like to improve their skills in are finding a business idea, doing a liquidity report and doing a balance sheet. Students reflect on what they do not know, but they do not appear, from the data, to use this acquired new knowledge because these tasks are not repeated.

Changing presuppositions through reflection

When students talk about what they have learned during the process of starting and running their JA companies, they sometimes talk about changes in how they view themselves, others, or certain preconceived ideas they have had. For example, Sara explains in her interview how she learned that people in market places often looked at her merchandise and then walked away. Sara states that this experience taught her to reevaluate how she perceived herself and her own limitations. "How much I dare to do things. Do I have the courage to go up to this person or not and ask if they want to check-out my product." Anna describes a similar experience in which she is forced to reevaluate her presuppositions about working together with other students. Anna says she was not able to work together with other students in her JA company as she had previously worked together with students in other

school projects. The design of the JA Company Program, says Anna, forced her to delegate responsibility, depend on others, listen to others and take joint decisions. Prior projects allowed for a complete division of work and individual evaluation, according to Anna.

> When I was an entrepreneur, I had to let go of being responsible for some parts [of my company]. … I couldn't do everything myself. We are two in our company … I was forced to learn that some things I just can't do. I have to let someone else do them (Anna).

Anna's statement indicates a change in presuppositions such as how she thinks of her own role when working with others, how she thinks about others' role, her own skills related to collaboration in a group and her image of group work and other students. This reevaluation not only results in changes in Anna's way of thinking about herself and others but also in her behavior when working together with her partner. Students' statements suggest that different experiences have the potential of triggering different ways students reflect on preconceived concepts of themselves or others. Ida describes how working with a student she did not believe would contribute to her JA company had caused her to feel worse and worse. The experience caused her to reevaluate how she thought about, and needed to react to, some people. Markus describes how he learned to motivate other students in his JA company. His experience changed his previous understanding on what motivates people which subsequently changed his method of motivating the other members of his JA company. Felicia explains how her self-confidence changed because other students in her company trusted her with the responsibility of marketing their product. She explains that the experience of starting and running a company in general helped her to reevaluate several aspects of herself as well as reevaluate how she viewed other activities she did such as going to school.

Using learned skills outside of JA company

During the interviews, some students reflected over skills that they had developed while starting and running their JA companies, and used in other school, or non-school, activities. These skills are presented in table 5 below. Some statements by the students are given after table 5

to provide examples and more insight into how students say they use skills in other school, and non-school activities. This is followed by a presentation of skills that students say they applied to their JA companies that they had previously developed before starting and running their JA companies.

Table 5 – Perceived skills students learned in JA Company Program and their effect on these students in other school or non-school tasks.

Skills learned in JA Company Program	Effect on student(s) in other school and non-school tasks
Taking responsibility, self-awareness	Realization that school is one's own responsibility
Planning Taking responsibility	Understand the need to start school work earlier. Not waiting until the last minute to start an essay or study for a test
Meticulous	Doing less sloppy school work
Written communication - learn to structure writing	Improvement of the structure of other written school work
Self-confidence and communication skills	Improved ability to call people and do personal errands over the phone Improved ability to communicate with customers at work outside of school. Less shy.

Not all the students talk about transferring skills they learned when starting and running their JA companies to other activities they did in- and out of school. The following examples from the interviews provides more insight into different skills that were transferred and the contexts in which they were used.

Felicia states that she has become more mature and has come to understand school in a new way.

> If you compare me now and in year one, I am like a completely different person. Now I am more mature. I have developed more. Teachers say that they don't recognize me almost because before I ignored all my assignments … I was absent from school a lot and now I hardly have any absenteeism. … And it is because I have become more responsible and come to understand that I decide over how my future is going to be. And I can believe. It occurs to me now. This year I have developed. And it can very well be because of my JA company project (Felicia).

For Felicia, maturity entails coming to school all the time, doing her assignments, being more responsible and the realization that her success, or failure, at school is a consequence of her own actions. The combination of becoming more mature, more responsible and changing certain views about herself and school Felicia believes can be attributed to her experience with her JA company. Her use of the phrase, can be, does however leave a question as to how much her JA company is responsible for the changes she experienced and how much other factors may have also had an impact on the changes she perceives. Felicia also states with more certainty that her schoolwork was a little sloppy previous to doing her JA company but that the experience from her company taught her to pay more attention to details. This improved skill has, according to Felicia, helped her to be more meticulous when writing essays towards the end of her school year.

Peter speaks about learning a lot about taking responsibility and planning while doing his JA company and how that has helped him plan other school work. "We just hand in written assignments that we give to our teachers in the subjects we have now and I have learned that it is much better if I start doing the work earlier. That is something that one takes with you in any case." Matilda says she further developed her self-confidence and communication skills while starting and running her JA company. Now she states that she can call people and conduct personal errands over the phone whereby previously she depended on her parents to do this. "Before this [doing a JA company], it has always been mom and dad who have called the hospital or dentist," Matilda explains. "Now I can call someone without thinking what I need to say. But … Sometimes it's like, 'No, I don't want to.' I still don't want to [call people] and to let this [feeling] go completely." Sara states that her experience in her JA company had a positive effect on her part-time job after school and vice versa. "I found that I had an easier time of it than my partner… contacting customers … but I still feel that because of my JA company that I dare to contact customers even more." Sara further states that even her boss noticed the change in her. "My boss at xxx company also says it. 'You have become more outgoing and dare to talk more now'. I guess that this is because of JA. Or it feels that it is so."

Sara is not the only student that says that skills that they learned before doing their JA Company Program helped them in various ways when starting and running their JA companies. Other students talk about skills they learned outside of school that they benefited from when starting and running their JA company. Klara talks about how her experience taking care of horses taught her responsibility which was needed in her company while Markus talks about how his experience being captain of a team helped him develop leadership skills which he used in his role as president of his company. However in Markus' case, he goes on to describe how his experience as president of his JA company helped him to further develop his leadership skills; "Getting others to be ambitious, push them or motivate them… Then I think that it is important to explain why."

Students also talk about their thoughts about being able to use, or not use, skills learned in their JA companies in future endeavors. Ida talks about the possibility of using communication skills to resolve problems which may occur in a future job. Klara speaks about how she perceives that her increased skill in conflict management will be a valuable skill for her to have in future jobs when she is no longer a student. Sofia states that although she has learned a lot about how to deal with people in her JA company, she is uncertain how much this will help her in other future work because her company was in one particular branch and other companies will be in other branches. Sofia, on the other hand, says she is doubtful that certain skills that she has developed in her JA company are transferable to other work she is contemplating doing in the future.

Opportunities and obstacles for reflection

Students say that they had not reflected much, or very little, on what or how they had learned before the interviews, either by themselves or together with others, during the process of starting and running their JA companies. It is difficult to know what the students mean by the expression not much and very little. However, only one student describes sitting down with other members of his company at the end of the school year to discuss what they had done and learned. Otherwise students say that the only time they talked about what they learned was

to write something in their end-of-year report about what they learned. There are also many examples in which students say they reflected on learning skills that they had not thought about previous to their interview.

Thus, the interview process was not only an opportunity for me as a researcher to gain insight into what students perceived they learned, and factors that affected learning, but also an opportunity for students to reflect on their own learning. Many students state that the interview gave them new perspectives and understanding about what they had learned, what affected their learning, and the affect starting and running a JA company had on them. The interview may have forced students to reflect on experiences, or changes in themselves, they had not reflected on, or put into words, before. For example Sara exclaims, "I have really developed as a person. That's it. I have not thought about how much I have done." Felicia comes to a similar conclusion about the interview process. "Yes, for example how much I have developed myself. That's something I have not thought of before. Something I have not realized. That it can depend on, it can actually depend on this [JA Company Program]".

All the students say that the interview was a good opportunity to reflect over their learning. "One doesn't think things through," comments Sara. "What have I learned during this year. You learn and then you know how to do it". Nonetheless, students state that the interview was a good opportunity for them to reflect on learning. "I think it was good," says Sara about talking about what she learned when doing her JA company. "One should do it more often." Thus, there is an indication from the students that more reflection on learning would have been positive. The question then is why this did not occur.

One reason that students often give, or imply, when they explain why they didn't reflect more on learning is perceived time constraints. Klara blames both lack of time and the division of work between her partners for a lack of reflection on learning.

> Now we are in such a rush, you write later. Then we just write. We divide it up. Then we write different parts of it and then we only read through each other's work, so we kind of approve what the others have written. … It feels as if we don't have time to sit and discuss (Klara).

The process of writing reports is described by many of the other students in a similar manner, i.e. they wrote different parts of the reports, put the parts together, read through them, made some changes, and then submitted the reports. Anna gives us another perspective of reflection on learning and reports.

> No. Or yes maybe we discuss a little. I don't know. No. Maybe when we write the business plan and those kind of things. About what we have learned. We have also written a half-year report. Then I think we mentioned it [what we learned] a little (Anna).

These students' statements provide some insight into how some students wrote their reports and possible implications that it has on reflecting on learning.

Logbooks are another possible tool that can assist students when reflecting on past experiences. In this study, only one student, Anna, said that she had written a logbook but she makes no connection between writing in her logbook and using it as a means of reflecting on learning. When Anna is asked if writing in her logbook was beneficial for her in any way she replies; "No. Not directly I think. No. It was just a matter of remembering, remembering what I had done." Sofia offers another reason why reflecting on learning associated with the JA Company Program may be hampered. "We have been so focused on reaching our goals, we have not taken the time to stop and think." Students' comments suggest that the large amount of work they need to do and the complexity of starting and running a JA Company Program divert attention away from the process of reflection on learning.

DISCUSSION

In the previous chapter, data has been presented that describes, and presents multiple examples of general and business skills students say they learned. It also presented the factors students say affect their learning, various ways in which students reflect on what they learn, and the importance of the interview as a means for students to reflect over what, and how they learned. In itself, the results provide information that, in part, answers the three research questions. It also, in part, achieves the aim of the study which is to gain more in-depth knowledge and understanding into what students perceive they learn, and the factors that students perceive affect learning, when they start and run JA companies. However, the results chapter only offers a partial analysis of the data. In the discussion chapter, the results are further analyzed, examined and discussed in light of the theories and previous research presented earlier. Applying theoretical concepts to the data provides other ways of seeing and understanding what and how students perceive they learn and the roll of reflection on their learning.

This chapter is divided into several parts. The first and second part is directly related to the first research question providing further analysis of, and a discussion about, various ways one can understand what students perceive they have learned. The third part relates to the second research question using situated learning theory as a means of understanding the factors that students say affect what and how they learn. The fourth part relates to the third research question and discusses various ways of understanding how students reflect on learning using Mezirow's (1990) theories of reflection on learning and various concepts regarding reflection on learning in experiential learning theory (A. Kolb & Kolb, 2009). This is followed by a reflection on the design of this study in relation to the results, pedagogical implications, contribution to the research field and a final section on areas for further research.

Understanding what students say they learn

A further analysis of the results provides different perspectives on what students learn when they start and run JA companies, and how their learning can be understood. This analysis is divided into two parts. The first part provides general conclusions that can be drawn from the data while the second part provides further insight into how one can understand what students have learned.

Perhaps the most fundamental conclusion that can be drawn from the data is that students in this study perceive that they have learned, or further developed, both general and business skills when they start and run their JA companies. This result is in contrast to the quantitative study conducted by Oosterbeek, van Praag, & IJsselstein (2010) who concluded that students did not significantly improve their entrepreneurial skills, but in support of other studies such as Lackéus (2016), Jones and Colwill (2013) and Dwerryhouse (2001) whose results show that students do say they learn skills.

The second general conclusion that can be drawn from the data is that while students stress learning both business and general skills, the specific business and general skills that students say they learn, and the degree in which they say they learn these skills, differ from student to student. Most prior research present the individual skills students say they learn when doing JA Company Program as lists but Jones and Colwill (2013) provide more information by giving the percentage of students who say they learned particular skills. When the result of Jone and Colwill's study is compared to the results in this study, it can be seen that in both studies self-confidence, team-work, overall understanding of business operations and planning are skills that most students said they learned. However only five of eleven students in this thesis said they learned self-awareness while 97.8% of the students in the study by Jones and Colwill (2013) said that they learned about their own personal strengths and weaknesses. This difference can be because students in this study didn't perceive they learned more about themselves or because some students didn't think about it during the interviews. On the other hand, all but one student in this study say they

further developed their oral communication skill while this was not mentioned in the study by Jones and Colwill (2013).

There is also a strong correlation between the results in this thesis and other studies previously reviewed (Dwerryhouse, 2001; Norberg, 2016b; Otterborg, 2011; Svedberg, 2007) regarding the skills working together and taking responsibility while there is some correlation with such skills as self-awareness, self-confidence, and communication. No mention was made of learning to work independently or networking in this study which is found in other research. This may reflect students' lack of learning of these two skills. It can also be the case that students had not heard terms such as networking before and did not understand the concept. When the results of this study are compared to the fifteen competences that the European Commission say that all individuals should know (Bacigalupo et al., 2016), none of the students in this study talk about learning, doing or having the competences vision, ethical and sustainable thinking, mobilizing resources, coping with uncertainty, and ambiguity and risk. Since this study was focused on what students say they learn and not on what they knew, many of the students may have had knowledge in these areas however this could be an interesting area of investigation for future research.

It is also interesting to compare the results of this thesis to those results from Norberg, Leffler and From (2015) who studied what entrepreneurial skills students believed would be important in their future lives. The skills that are presented in the study from Norberg, Leffler and From (2015) are social competence (12), working with others (9), responsibility (7), working independently (6), communicative competences (4), self-confidence (3), and taking initiative (3) in which each number represents a group of students. All but two of these skills, taking initiative and social competence, are skills that all, or many students, said they learned in this thesis. Social competence, which is not seen in this thesis, can be said to be reflected in how students talk about learning to work with others in their JA companies and in the communication skills they say they learn. The category, social skills, was not created in the results because none of the students used the actual word social skill and there was insufficient data on which to create, with relative certainty, this category. The fact

that there is a strong correlation between these two studies may provide some insight into the possible importance these skills (working together, responsibility, communication, self-confidence) had for the students in this study.

Another general result of this study is that many of the general skills that students perceive they learned such as working together, communication, problem solving, creativity, taking responsibility and self-confidence are also skills that the Swedish National Agency of Education express are important to learn in the *Curriculum for the Upper Secondary School* of 2011 (Skolverket, 2013). The importance of learning general skills in all school forms is further emphasized in the publication, *Entrepreneurship in School* (my translation) also published by the Swedish National Agency of Education (Skolverket, 2010). In light of the wide spread use of the JA Company Program in Swedish upper secondary schools, further research is needed to study the value of JA Company Program as a pedagogical tool to learn general skills that are also deemed valuable by the Swedish National Agency of Education.

When students describe using skills they learned when starting and running their JA companies in other activities both in, and out of school; students appear to show an understanding that some skills are not bound to one particular activity, but can be used in other activities and other contexts. The concept of transferring what is learned in one context to another is supported by some proponents of situated learning such as Anderson, Reder and Simon (1996). As presented earlier, Singley (1989) states that the ability of individuals to transfer knowledge and skills to different contexts depends on the nature of the knowledge and skills themselves. General knowledge and skills are more easily transferred to other contexts. The skills that students talk about using in other contexts are general skills that appear to have use in many contexts thus supporting Singley's (1989) concept of the transfer of knowledge and skills.

One difference between this thesis and other studies that have been presented earlier is the detail in information provided in this thesis about what students learn. According to A. Kolb and Kolb (2009),

concrete experience accompanied by reflection and action can lead to learning which is broader and richer. There are many examples in which students' statements reflect a more holistic or deeper understanding of what they learn. One example of this is seen in students' ability to talk about various components of skills, especially business skills such as marketing, financial reporting, bookkeeping and leadership. For example, students talk about learning marketing research, advertising, pricing, product design, and sales techniques when they talk about marketing thus showing knowledge of many of the components of marketing.

Students' ability to say how some skills can be used in different situations reveals knowledge of their practical application in different business situations. Students also have different ways of understanding the connection between skills and tasks. On one level, students talk about using a single skill for multitude tasks. For example, creativity is described as being used to find a new design for a product, finding a new business idea, fixing a lamp or finding new ways to sell or attract customers. On another level, students talk about learning and using specific general and business skills to do specific tasks in their JA companies. For example, students talk about improving general skills such as communication skills and self-confidence as well as learning business skills such as sales technique to do the task of selling products and services. This appears to indicate that students understand the interrelationship of general and business skills to achieve business tasks in the overall operation of their JA companies.

Students are also able to talk about, and appear to understand, the interrelationship between different tasks needed to achieve goals in their JA companies. For example, students describe the relationship between the task marketing and the task manufacturing. They describe the importance of design, function, material, and production costs of the product with their ability to market and sell the product to reach their sales' goals. Thus, they not only say that they learn about production and marketing, but they also talk about them in relationship to each other. The ability for students to describe these interrelationships gives the impression that students have, to some extent, learned how various aspects of their businesses affect each

other and the overall success of their JA company. This is another indication that these students have, to some degree, a holistic understanding of the tasks they do, and the skills they learn. These different ways that students show a deeper or more holistic knowledge of skills reflect A. Kolb and Kolb's (2009) concept, as described earlier, of deeper learning through reflection on experience gained through active participation.

Lastly, students appear to understand that there are different levels of knowing or being proficient in skills. For example, students show some ability to understand whether a skill they use, or have learned, was sufficient to do tasks in their JA companies or whether they perceived that they needed to further develop a skill. When students talk about the level in which they know a skill (i.e. enough or not enough), they do so in relation to tasks they have done. As such, the data shows that the process of learning skills by doing tasks can provide feedback to students regarding their proficiency in a skill, a concept that is also supported theoretically by A. Kolb and Kolb (2009). This being said, the degree in which students can assess their own skills, and the proficiency students acquired in different skills when doing their JA companies, was not investigated and cannot be determined in this study.

In summary, the data reveals that students learn business and general skills on many levels. Based on the data one can surmise that students acquire a more in-depth understanding of many skills through their ability to talk about the complexity of many skills, to provide numerous examples of how the skills were used when doing business tasks, and the relevance and importance of learning skills in order to do particular tasks and for the overall success of their JA business. Students are often able to talk about interrelationships between different skills and business tasks. They also show a certain ability to assess their own skills and understand whether skills they know, or have learned, are sufficient to do certain tasks. Furthermore, some students show that they understand that some of the skills they learn when starting and running their JA companies can be used in other school, and non-school activities thus showing an understanding of the ability to

transfer skills learned through one activity to other activities and contexts.

Internal and external entrepreneurship

The data shows that students speak extensively about learning both business and general skills. Furthermore, the analysis above reveals different ways in which students say they know and understand both general and business skills, as well as how these skills are interrelated when doing tasks. As such, one can draw the conclusion that learning is not, for these students, restricted to learning mostly business or general skills. Starting and running a JA company, for these students, can be said to provide education in both internal entrepreneurship and external entrepreneurship. As such, what students perceive they learn is in line with the overall aim of the JA Company Program (Lindqvist, 2014) and the European Commission report on mini-companies (European Commission/Enterprise and Industry Directorate-Gereral, 2005) which is to learn both business and general skills.

There is no clear data to suggest whether learning business or general skills was more important to students, however there are two indications that learning general skills may have had a greater impact on students at the time of the interview. Firstly, the skills that students talk about further developing while doing their JA companies, and later using in other school, and non-school activities, are general skills. Secondly, the skills that students talk about that appear to have led to transformative learning (which will be discussed later in this chaper) were general skills. This being said, what students talk about learning during their interviews was fairly equally distributed between general and business skills.

In light of the data, I would like to revisit the terms internal and external entrepreneurship. These two terms provide a means of investigating, and talking about, learning related to entrepreneurship

education.[12]   However, these two terms also create a dichotomy of learning between general and business skills that, to my knowledge, does not have its equal in other school projects. There is a question whether the creation of these terms, internal and external entrepreneurship education, create the idea that learning general skills is a separate process from learning business skills, an idea that is not supported by the results in this study. On the contrary, in the process of doing different tasks, students perceive learning different combinations of both general and business skills. Thus in many cases, students seem to learn general skills together with business skills when doing many business tasks. By dividing learning into two different categories, internal and external entrepreneurship, there is the possibility that one loses sight that general and business skills, according to these students, are often used, and learned, together when doing tasks in JA companies. By speaking about general and business skills or internal and external entrepreneurship, it is possible that one does not see their interdependence that is shown in the data of this thesis. Thus, although one needs means of categorizing and discussing what individuals learn, it is also important to discuss how such terms as internal and external entrepreneurship affect how we understand and talk about learning.

A community of practice

When students talk about factors that affect their learning listed in table 4, they do not talk about any comprehensive theory or concept of learning that ties all these factors together. Students give information about the factors that affect their learning in fragments without providing an explanation of how they may be tied together. One way of further understanding how students learn while starting and running JA companies, and the nature of the JA Company Program itself, is

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[12] These are not the only ways in which scholars divide learning in relation to entrepreneurship education. Hytti et al. (2002) states that "entrepreneurship has three different meanings in Europe: (i) (external) entrepreneurship that is about setting up and managing small businesses and/or growth-oriented, entrepreneurial ventures; (ii) intrapreneurship, that is understood as an entrepreneurial way of action within an organization; and (iii) enterprising behavior that deals with the behaviors, skills and attributes of any individual in all spheres of life" (page 5).

through situated learning theory by Lave and Wenger (1991). Situated learning theory proposes that learning takes place in the constant interaction between individuals, the actions individuals take (called active participation) and the community in which the individuals actively participate. For Lave and Wenger (1991), community entails all aspects of the social world in which action takes place such as rules, laws, culture, language, customs, and people. Community of practice is the community in which activities take place. Using this definition of community of practice, one can say that all the factors that students perceive affect their learning (listed in table 4) are all part of one community of practice that students associate with doing their JA companies. Examples of these factors include rules, activities, teachers, customers, market places, fairs, state laws and educational material. Using Lave and Wenger's concept of community of practice, all of the factors that students perceive affect them while they are doing business activities in their JA companies can be interpreted as defining one large, complex community of practice.

This community of practice is made up of a multitude of factors, many of which students describe as originating from different contexts such as their school, JA Sweden, or the business environment where they buy, market and sell their products and services. For example, students associate teachers, some teaching material, and classrooms with school. On the other hand, selling products at Christmas markets or doing services for customers can be said to be part of the business environment. Other activities that are outside of school students connect directly with JA Sweden, or their regional offices, such as registering their JA companies, sending in financial reports, deadlines, contests and the JA regional and state fair. Thus, the factors that students identify that affect their learning, and that can be said to create a complex community of practice, originate from a multitude of different contexts such as school, JA Sweden, or outside of school were students do various business activities.

When individuals first begin to participate in a community of practice they are called newcomers by Lave and Wenger (1991). Newcomers can, according to Lave and Wenger (1991) not only be affected by the community of practice but have the ability to question, and affect

change, on it. There are instances in the data in which students question certain factors that affect their learning. These factors, on the whole, originate from the students school context. Examples include a desire for more instruction about financial statements, advertising or selling strategies. There are no examples of students questioning state laws and regulations or the business environment in which they do activities such as the purchase of products, marketing, contract negotiation and sales. Hay disputes the idea that newcomers can question a community of practice because, as Hay says, they lack the knowledge to do so. Hay (1996) offers a possible explanation why students don't question factors that have their origin in the business environment. In the business environment, students do not have a voice because they lack the knowledge to question that which is new to them. On the other hand, the data supports Lave and Wenger (1991) that these students, as old-timers, are able to question aspects of learning that originate from their school environment such as teachers and teaching material.

Another concept that Lave and Wenger (1991) coin is the concept of "legitimate peripheral participation" in which legitimate refers to doing activities in the environment in which they are normally done, peripheral refers to different levels and ways of being engaged and located in the environment where activities are done, and participation refers to taking an active part in the community. Used in this study, the concept may provide another way of understanding what students have said about their learning. There is an indication, expressed directly or indirectly by students, that they do not take certain activities as seriously as others. Activities that they perceive are done for school, or JA Sweden, such as business reports, accounting, and financial reports seem to be taken less seriously than some other activities such as fulfilling obligations to customers or paying bills. Many students say they did not keep proper track of their receipts. Lave and Wenger's concept of legitimate peripheral participation can provide one possible reason for this phenomenon. Students' JA companies have a separate set of rules and are not the same as other registered Swedish companies. Students do not send their financial reports to the Swedish Tax Agency nor do they report value added tax (VAT) to them because JA companies do not add VAT to the sales price of products and

services. In regards to the concept legitimate peripheral participation, students' JA companies are only partly legitimate, in the sense that they only partly follow the normal activities and regulations of a Swedish company. Another words, in some instances JA companies are not authentic or real companies that need to follow the rules, regulations and laws that other 'normal' companies need to follow in Sweden. This can offer a partial explanation why students talk about not keeping track of their sales receipts or not learning financial statements, accounting, and financial reports to the degree that they perceived they need to, or should have, when doing their JA companies.

The concept of community of practice may also offer some explanation for two other results from this study. Firstly, students talk about, and can identify, many differences they perceive exist between their JA company project they do in school and other school projects they have done before. One reason that can explain why students perceive this difference is that many of the factors in table 4 that students say affect them when doing their JA companies originate, or are located, outside of school. Students even say that certain skills cannot be learned in school such as learning how to sell to customers. Secondly, students express confusion as to the nature of the JA Company Program in relation to school. Some students say that the JA Company Program is different from other projects without understanding why. As Ida says, "School is school I feel and then our company is something else over and beyond school. …I don't know really. It feels like they are two different things, although it [JA Company Program] is a school project actually because everything is part of JA". Students' uncertainty about the nature of the JA Company Program in relationship to school creates confusion for students who try to make sense of how the JA Company Program fits in to their preconceived ideas of school and school projects. However, given that students perceive that starting and running a JA company is comprised of many elements that they do not associate with school, should the JA Company Program be viewed as something different from a traditional school community of practice, as it is sometimes viewed, and perhaps seen by these students, or should it be redefined as a new school community of practice?

I would argue the latter, that the school community does not have to be viewed, in the traditional sense, as being something apart from other communities outside of school as it is often depicted in numerous studies and reports that emphasize the need for students to venture outside the boundaries of schools in order to further learning (European Commission, 2001; European Commission/Enterprise and Industry Directorate-Gereral, 2005; EuropeanCommission/EACEA/Eurydice, 2016). School is often viewed as its own community of practice apart from other communities of practice outside of school as reflected in this quote by Lave and Wenger (1991).

> The organization of schooling as an educational form is predicated on claims that knowledge can be decontextualized, and yet schools themselves as social institutions and as places of learning constitute very specific contexts (p. 40).

However, the idea that school constitutes "a very specific context" is, to some degree, both substantiated and invalidated by the results of this study. The JA Company Program is a school project used to fulfill requirements in one or more courses. Thus, when students place their JA companies in multiple contexts such as school, the business environment in which students buy and sell products and services, the JA organization and state laws and regulations, they invalidate the idea that school is comprised of one specific place and context. There JA company is a school project that encompasses a multitude of contexts outside of the physical confines of their schools. On the other hand, when students compare their JA company school project with other school projects, they appear to be conveying the idea that other school projects have a particular form and context that can be interpreted as the traditional school context that Lave and Wenger refer to in the quote above. The implication based on statements from these students is that the JA Company Program created a new school community that was different from other school projects they had previously encountered.

Reflection on Learning

There are different ways of analyzing and gaining further insight into students' reflection on what and how they learn. In this chapter,

reflection on learning is understood mostly within the framework of experiential learning and Mezirow's theories on reflection on learning. Three aspects of reflection on learning are presented in this chapter. The first part of this chapter provides ways of further understanding students' reflection on what they have learned based on Mezirow's theory on instrumental and transformative learning. The second part analyses what students say about their learning in relation to reflection on experience based on concepts of learning expounded by A. Kolb and Kolb (2009) in experiential learning theory. Lastly, students' reflection on what, and how, they learn is discussed in relation to students' image and understanding of themselves as learner or what A. Kolb and Kolb (2009) call learner self-identity.

Instrumental and transformative learning

One way of analyzing how students reflect on what they learn is through the concepts of instrumental and transformative learning as defined by Mezirow (1990). As described earlier, Mezirow (1990) instrumental learning involves reflection on the what, how or why of experiences. Transformative learning is a process of critical reflection in which an individual questions, reevaluates, challenges and changes prior ways of "perceiving, knowing, believing, feeling and acting" through new knowledge that does not fit in to the individuals' existing frame of reference (Mezirow, 1990, p. 13). Students' descriptions of their learning in the data indicates that learning occurs on both levels, instrumental learning and transformative learning as defined by (Mezirow, 1990).

An analysis of the statements by students reveals that most learning is instrumental learning while occurrences of transformative learning are more infrequent. Instances in which students talk about doing actions on the spur of the moment, often to solve unexpected problems, are generally seen to involve a certain amount of reflection. Students often talk about evaluating what is known, what has been done, and what different actions to take to arrive at an optimal solution to a problem. Some students state that solving problems immediately, sometimes under pressure, is not something they have had training to do in school.

Previous research has not, to my knowledge, investigated this phenomenon which could be an interesting area for future research.

In some cases, students say that the experience of starting and running their JA companies caused them to question and change presuppositions about themselves, about others and even preconceived ideas such as the meaning of school. This in turn, according to students, led to new ways of understanding and new behavior. Mezirow (1990) calls such transformative learning perspective transformation. Mezirow (1990) maintains that critical self-reflection that leads to reevaluating how we understand the world and ourselves is "by far the most significant learning experiences in adulthood" (p. 13). Although instrumental learning that does not involve critical reflection could be identified much more frequently in the data than transformative learning, the frequency that transformative learning was identified does indicate that the JA Company Program had a significant impact on some of these students, especially in reference to further developing general skills such as taking responsibility, self-awareness and self-confidence.

Experience as motor for reflection and learning

The data supports the general concept of situated learning as stated by Lave and Wenger (1991) that learning takes place in the constant interaction of the students, the active participation by the students, and the social world in which active participation takes place. Using various concepts from experiential learning theory, it is possible to further investigate reflection on experience gained through active participation by students in their JA companies. To reiterate concepts of experiential learning, A. Kolb and Kolb (2009) state that learning occurs in the transformation of concrete experience through reflection, conceptualization and active experimentation. This cycle of learning is thus called the experiential learning cycle. Concrete experience is the basis for new experiences that can be reflected upon and conceptualized. Actions taken by individuals are validated through experience (A. Kolb & Kolb, 2009). Thus, it is through experience that individuals are provided feedback on what they know. Individuals learn through the process of experience, reflection, conceptualization

and action. When this cycle of learning is repeated again and again, a spiral learning process occurs that has the possibility of improving an individuals' knowledge and skills (A. Kolb & Kolb, 2009). Many aspects of learning that students talk about can be further analyzed using these concepts of learning described by A. Kolb and Kolb above.

Students often talk about doing activities, accessing how well the activities were done, reflecting on what could have been done better, what new knowledge or additional skill were needed, and then doing the activity again. A. Kolb and Kolb (2009) refer to this process of learning as a learning spiral. Feedback received from the social world in which the activities are done validate, or invalidate, students understanding of their knowledge and skills which they perceive are needed to do various business activities. The data indicates that by doing the activities many times students are able to reflect many times on what they know and, each time, acquire more knowledge which through more activity improves their skills. The success or failure of business activities students do appear to act as a trigger for students understanding of what they know and what skills they need to improve. Many skills students talk about learning such as selling techniques, oral communication, aspects of working together, planning, taking responsibility and self-confidence are also skills that students talk about, or imply, that they do repeatedly providing one explanation for why most of the students talk about learning these skills.

One of the core factors within experiential learning is learning by experience through action (D. Kolb, 1984). Leaning through action (often called learning by doing) is also a core concept in situated learning described by Lave and Wenger (1991) as active participation. While the concept of learning by doing, or active participation, explains most of the data, the degree in which students learn skills is dependent upon other factors. There are examples in which students state that certain business skills were not learned to the degree they perceived they needed to learn them to do certain business activities in their JA companies. Examples of these business skills are doing financial statements, business plan, end-year report and logos. Factors such as lack of time, the partial authenticity of the students' JA companies, and the roles students have in their JA companies are some of the reasons

that have already been discussed. Another reason that can explain this phenomenon is that certain activities are not repeated. They are done once or only a few times and, as such, there is not enough opportunity for students to obtain more factual knowledge, procedural knowledge or to improve certain skills through repetition. In part, this is perhaps due to the nature of certain tasks. A business plan for a new business is normally done once. In part, this is because the JA Company Program is a school project run normally for one school year. Thus certain business activities such as writing a year-end report, doing a liquidity report and balance statement, or producing and designing a product were usually only described, or implied by the students, as being done once. The benefits of repetition of A. Kolb and Kolb's (2009) learning spiral appear to be lacking in certain business activities thus limiting students' opportunity to better learn certain business skills.

The students almost never say that they would have wanted to learn more general skills while starting and running their JA companies but that they do point out some business skills they would have wanted to learn more. A. Kolb and Kolb's (2009) learning spiral provides a partial explanation for this phenomenon. Many of the general skills students say they learn they say, or imply, they do often. Some business skills students say, or imply, they do once or seldom. Students also talk about other factors that offer partial explanations for not learning business skills as much as they wanted that have been presented in the results. However, there may be other reasons that explain why students point out certain business skills they would have liked to further develop but do not talk about general skills they would have liked to further develop when starting and running their JA companies. When students talk about wanting to have further improved some business skills, they often talk about factual or procedural knowledge that they are lacking. For example, one student talked about wanting to know how to use a media program to create a professional looking logo. Students often talk about wanting more instruction in how to do financial reports. Students say, or imply, that it is a teacher, or school in general, that should have helped them acquire this business factual or procedural knowledge. Although there is no data to support this supposition, it is possible that students do not feel that it is a teacher's, or school's, responsibility to help them further develop many of the general skills

they talk about in this thesis but that it is the school's responsibility to help them learn the factual or procedural business knowledge they perceive they are lacking. One student did talk about wanting help from teachers to further develop her communication skills but she also says that the teaching material that her class was given for this purpose did not help her.

Importance of reflection on learning self-identity

A. Kolb and Kolb (2009) state that "those individuals who believe that they can learn and develop have a learning self-identity" and that this learning self-identity is strengthened by understanding what and how one learns (p. 306). Seeking new experiences and challenges, making one's own choices, and learning through personal experience are some key ways in which individuals create a self-identity. However, one problem that A. Kolb and Kolb (2009) point out is that "many people have not thought about what learning is and about themselves as learners" (A. Kolb & Kolb, 2009, p. 305). This problem is one that appears to be reflected in the statements by the students in this study who say that they have reflected little before the interview on what or how they have learned while starting and running JA companies. This is despite the long period of time that the students have to do the JA Company Program compared to other school projects that students say lasted only two to five weeks. Students say the longer time span of the JA Company Program was an important factor that led to learning more skills, but it did not, according to the students, lead to considerable reflection on their learning.

The students said that the interviews were an important opportunity for them to explore different aspects of their learning. This, according to A Kolb and Kolb (2009), should also help students build their learning self-identity During the interviews, students provided profuse information about the skills they perceive they learned and factors that they perceived influenced their learning. Moreover, they described various learning processes through their examples of how they learned various skills such as the learning through action validated through experience and the learning spiral. They showed the ability to compare their JA companies to other school projects they had done before and

to talk about how certain experiences changed their frame of reference. Finally, students could identify some skills that they learned in the JA Company Program and used in other school, and non-school activities. All this shows a potential for students to reflect on their learning and yet students said that they reflected little, or very little, on their learning prior to the interview.

When students were asked why they did not discuss their learning with other students in their JA companies, or with others such as teachers, parents or friends, they often replied that they concentrated on getting things done. Although they say they had much more time to do the JA Company Program than other school projects, they also say that the JA Company Program is much more complex, has many more tasks, and require much more work than other school projects they have done. Students' reflection on experience appears to be focused primarily on how to solve problems or achieve goals in their JA companies and not on what or why they learn. Some prior research on the JA program substantiates this. Dwerryhouse (2001) states that students talked about the importance of having long periods of time to reflect over the successes and failures in their company as a means of optimizing company performance. Lackéus (2016) states that the JA Company Program is primarily focused on economic value for personal gain and enjoyment value centered around customers.

The European Commission report, *EntreComp: The Entrepreneurship Competence Framework* emphasizes reflection both as a means for individuals and team to learn and improve their ability to create value, but also as a means for self-assessment and learning (Bacigalupo et al., 2016). A. Kolb and Kolb state that in experiential learning theory, individuals' "primary focus is not on immediate performance or goal achievements but on the ongoing process of learning from these experiences" (A. Kolb & Kolb, 2009, p. 304). In this study, the data indicates that students mostly reflect on questions regarding the operation and optimization of their JA companies rather than their learning process.

Collaborative learning, states Brown, Collins and Duguid (1989), can provide individuals opportunities to discuss and gain a better

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understanding of their learning. However according to the students in this study, they talked very little about what or how they learned with each other. This does not mean that there are no examples of collaborative learning in the data. There are examples in the data in which students talk about working together to collaboratively do business activities and solve problems in their JA companies. In this sense, collaborative work may have had many benefits that have been associated with collaborative learning by scholars such as helping students to work together successfully (Bruffee, 1995), solving problems (Brown et al., 1989) and the need to divide work between individuals thus learning the importance of creating roles in groups (Brown et al., 1989). However, collaborative learning, according to these students, does not, on the whole, include discussing what and how they learn. Students do say that the year-end reports did provide some opportunity to discuss learning at the very end of the students JA companies, but such discussions they say were limited. Thus, these students provide some insight into the possible need for more focus on what, and how, students learn throughout the entire process of starting and running their JA companies as one means of helping students to build their self-identity as a learner.

Methodological reflections

The following section presents and discusses the impact that the methodological choices made in this study may have had on the results. It is important to reflect upon, and discuss, the results and the analysis of the results in relationship to the various steps in the research process in order to ascertain their trustworthiness and to account for uncertainties, negative evidence and other possible explanations (Miles et al., 2014). Although the question of validity in qualitative research is debated by some scholars, Miles, Huberman and Saldaña (2014) state that the credibility of research lies in its ability to make sense and to portray an authentic portrait of what is being investigated. This is especially important, state Miles, Huberman and Saldaña (2014) since the majority of qualitative research is done alone; "Each is a one-person research machine: defining the problem, doing the sampling, designing the instruments, collecting the information,

condensing the information, analyzing it, interpreting, and writing it up" (p. 294).

In regards to the method of data collection, the results reveal that individual interviews provided students the opportunity to talk freely about their learning experiences while starting and running a JA company with other students. Students can be seen to talk about sensitive information regarding, for example, difficulties they had working with partners or information about their personal development that was linked to how students developed certain general skills such as working together, self-confidence and self-awareness. However, it was noted that when some students talked about difficulties with other students in their JA companies or about their teachers that they appeared to take more time and choose their words carefully. However, the interviews in general reflect a level of trust between the interviewer and the students which can account for the profuse information provided by the students. Trust between interview and interviewee Cohen, Manion and Morrison(2011) stress is an important element in the interview process. However, there also appears to be some evidence of distance between interviewer and interviewee in the interviews that can occur because of what Kvale (2006) refers to as power asymmetry between interviewer and student. It is not possible to know what data may have been lost due to power asymmetry.

Miles, Huberman and Saldaña (2014) talk about triangulation as a means of validating data and providing more data. The students were interviewed once at the end of the school year but more information may have been provided by students if they were interviewed several times during the school year. It is also possible that more information would have been provided in group interviews because of the possibility students would have had to help each other remember events and situations (Bryman, 2011). However in group interviews, students may not have been open with information about how they perceived working with other students in their JA companies and problems that they perceived occurred that affected them which is seen in the data in this thesis. An analysis of the students' reports may also

have provided more information and is a possible avenue for future research.

In the selection process, decisions were made regarding various selection criteria in order to ensure both diversity and commonality in the sample. Diversity in the sample included students' JA companies' business ideas, students' roles in their JA companies, and students' program and school. Those criteria that ensured a commonality in the study were teachers' qualifications and having at least two students in every JA company. The analysis of the data reveals that the impact of these criteria differed. Students' roles often had a significant impact on what students perceived they learned. Furthermore, students said they learned several skills because they worked together as a team of two or more students. Even the nature of the students' business idea was shown to have an impact on what these students' say they learned, as was the students' program of study, since this criteria influenced at times the type of business idea that the students chose to do. However although the data does reveal that teachers affected students' learning, it is not possible from the data to ascertain whether that effect was related to teachers' having had training in the JA Company Program by JA Sweden. As such, this criteria may, or many not, have had an impact on the data and could therefore have been excluded completely. Furthermore, the data does not show whether students' schools had an impact on students' learning. In conclusion, most of the criteria that were included in the selection process were shown to have an impact on the results, however it is unknown whether other criteria, that was not included in the selection process, would also have had an impact on what and how students perceive they learn. There is, in fact, some evidence in the results that indicate that there is at least one other criteria that did affect students' perceptions on learning. Some students in this study said that their previous work experience had an impact on their learning but this was not a criteria that was considered in the selection process.

Interviews as a method of obtaining information about how students reflect on their learning provided students with an opportunity to talk about what they had already reflected on as well as provided a new opportunity for them to further reflect on their learning. However,

students' statements of what and how they learn differ. These differences may occur because each student has a different learning experience from their own unique JA companies as well as their own background, previous experiences, knowledge and skills. However as Cohen, Manion and Morrison (2011) state, there are many variables such as communication, time of interview, and how questions are interpreted by the interviewee that can affect the responses provided in an interview. Some students in this study explained that it was hard to give further examples because it was hard for them to remember. In other cases, there are some examples of students who said it was hard to put into words what they learned or how they learned it. Thus, students' ability to articulate their thoughts can be seen to have some effect on the results in this study. Furthermore, there is also the possibility that students may only have talked about learning skills that they deemed important despite the instructions given in the interview.

My background as business teacher and interviewer was discussed earlier in this thesis. The danger of having too much knowledge about what is being studied is that one may overlook areas that others with less knowledge would find worthy to investigate, however good knowledge of the subject matter and of human interaction are necessary elements of a good interview (Kvale, 1996). During the transcription process, there were a few instances in which it was noted that some information was taken for granted and that more inquiry may have provided more data. However, these instances were not frequent. There were many instances during the interviews in which expertise in entrepreneurship was valuable in obtaining more information from the students about what, and how they learned business skills. An understanding of the JA Company Program was also valuable in being able to ask follow-up questions to the students.

One method of evaluating the creditability of data according to Miles, Huberman and Saldaña (2014) is to evaluate whether it makes sense or seems plausible or convincing to others and whether the data can be linked to previous research and theories. Presentation of the data in seminars, as well as national and international conferences, has not revealed any questions in the data's authenticity or validity.

Furthermore, the data and discussions in this study are on the whole substantiated in previous research and grounded in theory often associated with entrepreneurship learning. However those instances in which the data in this study conflict with other studies (such as students' reflection on learning or transformative learning) or instances in which this study reveals further information about learning (such as the balance between students' perception of learning general and business skills) have been explained and/or accounted for.

Pedagogical implications and contribution to research

An analysis of the students' transcribed interviews provides further insight into what they learn and factors that affect their learning when they start and run their JA companies. The study validates the importance of active participation in contexts in which activities are normally done asserted both theoretically (A. Kolb & Kolb, 2009; Lave & Wenger, 1991) as well as in prior research (Dwerryhouse, 2001; Jones & Colwill, 2013; Lackéus, 2016). It also provides more insight into other factors that students say affect learning, of which there is only some degree of consensus in previous studies discussed in this thesis, as well as more insight into the transfer of skills discussed in some studies (Dwerryhouse, 2001; Otterborg, 2011). This thesis also provides more understanding of how factors that promote learning can also, in some cases according to the students, deter learning. By using the concept of a learning spiral by A. Kolb and Kolb (2009), it has also been possible to point out possible advantages of doing tasks repeatedly in the JA Company Program and possible disadvantages of doing some tasks only once or a few times to students' learning process. Lastly, while some studies do discuss the importance of reflection for students to analyze, solve problems or reach goals in their JA companies (Dwerryhouse, 2001; Norberg, 2016a), this study illuminates what students say about reflection on their own learning during the process of starting and running their JA companies and the desire for more reflection on learning voiced by the students in this study. As such, this thesis can provide valuable information for the JA organization and other mini-company organizations, as well as a starting point for further investigations.

The study also has pedagogical implications for education on a broader plane. Learning general skills is important for students' education not only in Sweden according to the Swedish National Agency of Education (Skolverket, 2011a, 2013) but in all European schools according to numerous reports from the European Union and the European Commission (European Parliament, 2008; European Union, 2006; Mahieu, 2006). Most of the factors that students identified as affecting their learning when starting and running their JA companies students said had a positive effect on learning both general and business skills. A few of these same factors were also said to hinder learning some skills. Studies such as this can provide valuable information for schools, as well as national educational agencies, in their effort to understand and create pedagogical methods and tools that help promote the learning of general skills in students' education.

The comparison that students made between doing their JA companies as a school project, to other school projects, (listed in table 4) is another area taken up in this thesis that can have general pedagogical implications for education. Students in this study identified factors that they perceived had a positive effect on learning skills when doing their JA companies. In contrast, students perceived that other school projects did not have, or did not have to the same degree and form, those factors that had a positive influence on their learning they associated with the JA Company Program. Students also said that their JA companies provided them with new learning situations that they did not perceive having experienced previously in school. As such, this thesis may not only provide further insight into factors that affect learning in the JA Company Program but also insight into the effect on projects when these factors are not present. Put another way, this thesis provides insight into the importance of how projects are designed and how the design of a project can affect the opportunities the project provides for the learning of general skills.

Lastly, it is interesting to note that although students described learning skills, they never used the actual terms skill or competency.[13]

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[13] As noted earlier in this thesis, the terms skill and competency are used synonymously.

This is in spite of the fact that the Swedish National Agency of Education uses terms such as skill and competency in curriculum documents for 2011 and in other documents pertaining to entrepreneurial learning (Skolverket, 2010, 2011a, 2013, 2014, 2015). Furthermore, these terms are used extensively in research and international reports on both internal and external entrepreneurship (Chell, 2013; European Commission/Enterprise and Industry Directorate-Gereral, 2005; European Union, 2006; EuropeanCommission/EACEA/Eurydice, 2016; Jones & Colwill, 2013). Thus, although the terms skills and competencies are used to describe what students should learn or know in Swedish policy documents, EU documents and research on entrepreneurship; these students did not use these terms once during any part of their interviews. Whether these students were unable to use these terms, unaccustomed to using these terms, did not see fit to use them or did not know them is impossible to say. Nonetheless, there are pedagogical implications that terms, such as skills and competencies, are not used by the students in this study. Knowledge of pedagogical terms that describe what and how students learn can also help students better describe and perhaps understand their learning thus helping them further build their learning self-identity.

Further research

This thesis uses a qualitative study on a relatively small sample of students to gain more in-depth knowledge and understanding into what Swedish upper secondary school students perceive they learn, and the factors that students perceive affect learning, when they start and run JA companies. Quantitative research of a large sample of students could provide more information on the degree in which students perceive they learn skills, what skills they learn most and least, as well as the importance these skills have for students. One of the major results of this study is that it shows that the students in this study can reflect on what, and how they learn. However, these students also say that reflection on learning was limited before the interview. Further research is necessary to investigate the extent of students'

reflection on what, and how they learn. One could also investigate the role of teachers regarding students reflect on their learning.

This study has also raised many other questions that require further research. One such question is the ability of other school projects to help students learn general skills. Based on the students' comments other school projects do not offer as much opportunity for students to learn certain skills. More research is necessary to investigate whether this view of other school projects is held by a wider group of students, and if so, to further investigate the factors that affect learning in other school projects. An analysis of the rules, regulations, culture, customs and other factors that comprise these other school projects could generate new insight into factors that support, or hinder, the learning of general skills in other school projects.

This study also raises the question of the knowledge that upper secondary students have of such terms as skills and competencies and their ability to use these terms. Furthermore, one could study to what extent teachers discuss both general and business skills with students while they are starting and running their JA companies. Finally, some information about teachers and educational material was provided by students, but this information was rather limited and raised many other didactic questions that require further research. For example, what support do students perceive they need from teachers and what form should this support take? Furthermore, what support do teachers perceive they can provide for students and in what form?

SAMMANFATTNING PÅ SVENSKA

Ekonomiska och sociala förändringar har ofta åberopats som drivkrafter bakom växande internationellt och nationellt fokus i Europa för att främja entreprenörskap inom utbildning (Gibb, 2007; Mahieu, 2006). Huvudmålet med entreprenörskap i Europa har traditionellt varit att främja starten av nya företag. Dock har lärande av entreprenöriella färdigheter blivit ett allt mer allmänt mål för entreprenörskapsutbildning för individuella behov liksom för samhällets behov (Europeiska kommissionen, 2010, Europaparlamentet, 2013; Gibb, 2002).[14] I läroplanen för gymnasieskolan 2011 står det framskrivet att det är skolans uppdrag att eleverna utvecklar entreprenöriella förmågor som exempelvis initiativtagande, ansvarstagande, kommunikation och samarbete. Lärande av entreprenöriella förmågor ska vara "värdefulla för arbetslivet, samhällslivet och vidare studier" och " ökar elevernas möjligheter att kunna starta och driva företag" (Skolverket, 2011b, p. 7).

Trots en markant ökning av entreprenörskap och företagsutbildning i skolor och icke-statliga organisationer i Europa (EuropeanCommission / EACEA / Eurydice, 2016), är de flesta undersökningarna om entreprenörskapsutbildning inriktade på högre utbildning, medan forskning inom grundskolan och gymnasieskolan är begränsad (Johansen & Schanke, 2013). Elert, Andersson och Wennberg (2015) menar att bristen på studier av entreprenörskapsutbildningar i grundskolan och gymnasieskolan gör det svårt att "avgöra vilka färdigheter sådana program kan leda till och att identifiera mekanismer som underlättar ackumuleringen av entreprenöriella färdigheter" (min översättning, s. 2). Syftet med denna studie är att få mer ingående kunskaper om och förståelse för vad svenska gymnasieelever uppfattar att de lär sig, och de faktorer

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[14] I den här studien betraktas termerna färdighet och kompetens som likvärdiga. Skolverket använder ordet förmåga för att beskriva entreprenöriella förmågor i läroplanen för gymnasieskolan 2011 (Skolverket, 2011b) men den översätts till 'entrepreneurial skills' i engelska versionen av läroplanen för gymnasieskolan 2011 (Skolverket, 2013) som översätts till entreprenöriella färdigheter (min översättning).

som elever uppfattar påverkar deras lärande, när de startar och driver mini-företag som organiseras och drivs av den privata organisationen Ung Företagsamhet i Sverige.

Mini-företag är ett utbrett pedagogiskt verktyg som används i europeiska skolor. Syftet är att hjälpa eleverna att lära sig att börja och driva företag samt att lära sig entreprenöriella färdigheter (European Commission / Enterprise and Industry Directorate-Gereral, 2005). Organisationen Ung Företagsamhet organiserar och driver ett mini-företagsprogram (som heter UF-företagande) i gymnasieskolor. Det är det mest populära mini-företagsprogrammet i Europa (European Commission / Enterprise and Industry Directorate-Gereral, 2005). UF-företagande finns i över 40% av skolorna i Sverige. (Ung Företagsamhet Sverige, 2017). Mini-företag inom UF-organisationen heter UF-företag. Även om Ung Företagsamhet organiserar och driver projektet UF-företagande, instrueras gymnasieeleverna som gör UF-företag av gymnasielärare som använder programmet som ett medel för att uppfylla en eller flera kurser. Som sådant är projektet UF-företagande en vanlig aktivitet inom gymnasieskolorna och inte en verksamhet utanför skolan. Kortfattat innebär detta att elever som driver ett UF-företag kommer på en affärsidé och säljer sen en produkt och/eller en tjänst till privatkunder och/eller till företag. Eleverna skriver en affärsplan och en årsredovisning som bland annat innehåller en beskrivning av deras affärsidé, deras organisation och deras produkt eller tjänst, en marknadsföringsplan, och en resultatbudget. Eleverna startar UF-företagen i början av läsåret, runt augusti och löser oftast upp dem i maj-juni i slutet av läsåret. Eleverna behåller och delar upp vinsterna som deras UF-företag gör. De är även ansvariga för eventuella förluster i företaget.

Data-insamlingsmetoden i den här studien består av semi-strukturerade intervjuer med elva elever. Var och en av de intervjuade eleverna startade och drev ett UF-företag med en till fyra andra elever under läsåret 2014-2015. Eleverna genomgick sin gymnasieutbildning på en av sex skolor som fanns i tre kommuner i Mellansverige. Sex av eleverna deltog i yrkesförberedande utbildningar och fem deltog i högskoleförberedande program. Eleverna hade olika roller i sina företag, inklusive VD, marknadsföringschef och ekonom. Var och en av

eleverna intervjuades separat i slutet av skolåret när de var färdiga, eller nästan färdiga, med alla aktiviteter i sina UF-företag.

Situerat lärande, erfarenhetslärande, och Mezirows teorier kring reflektion om lärande innefattar det teoretiska ramverket som används för att analysera och bättre förstå empirin i denna studie. Situerat lärande är en holistisk teori om lärande som möjliggör ett sätt att förstå lärandet genom praktisk erfarenhet i specifika sammanhang (Lave & Wenger, 1991). Med fokus på lärande genom aktivt deltagande i miljön där aktiviteter normalt förekommer återspeglar situerat lärande kärnan i mini-företag som en pedagogisk metod för utbildning som främjar lärande genom praktisk erfarenhet i miljöer utanför skolan (European Commission / EACEA / Eurydice, 2016). Erfarenhetslärande är en handlingsbaserad teori om lärande som hjälper till att förklara elevernas kognitiva inlärningsprocesser och rollen av reflektion i inlärningsprocessen (A. Kolb & Kolb, 2009). Slutligen presenteras Mezirows teorier om reflektion för att möjliggöra olika sätt att förstå och analysera hur eleverna reflekterar över erfarenheter och hur reflektion kan påverka en individs referensram och beteende.

Fastän de färdigheter eleverna säger att de lär sig skiljer sig från elev till elev, visar empirin att eleverna talar mycket om att lära sig både företags- och allmänna färdigheter. Samarbete, muntlig kommunikation, planering, ansvarstagande och självförtroende är de allmänna färdigheter som de flesta elever säger att de utvecklar när de startar och driver sina UF-företag. Alla elever säger att de lär sig företagsfärdigheter. Dock skiljer sig graden av inlärning av företagsfärdigheter mycket åt. Elevernas utsagor visar ofta på en djupare förståelse av färdigheter när eleverna beskriver dem och pratar om hur de används. Eleverna talar också om behovet av både allmänna- och företagsfärdigheter när de gör uppgifter i sina UF-företag. Resultaten visar att eleverna pratar om, och verkar lägga lika stor vikt vid att lära sig allmänna färdigheter som att lära sig företagsfärdigheter när de arbetar med sina UF-företag. En del elever beskriver också hur de använder färdigheter i andra skol- och icke skolaktiviteter, som de förbättrade medan de gjorde sina UF-företag, vilket leder till bättre resultat i dessa andra aktiviteter.

Att genomföra företagsaktiviteter i miljöer där sådana aktiviteter normalt görs, som i näringslivet utanför skolan, ses som en av de viktigaste drivkrafterna för att lära sig generella och affärsmässiga färdigheter. Därtill beskriver eleverna många andra faktorer som de också uppfattar haft en övergripande positiv effekt på lärande av färdigheter, som fastställda inlämningstider, projektets komplexitet, stort antal uppgifter, projektets allvar, gemensamt ägande, ansvarighet mot andra utanför skolan, stolthet i sitt UF-företag, vinster och projektets långa tidsperiod. Några av dessa faktorer hävdar eleverna också som hindrande i sitt lärande av vissa färdigheter, särskilt företagsfärdigheter. De olika faktorer som eleverna säger påverkar deras lärande kan ses som att de härrör från olika kontexter som elevernas skola och UF-organisationen eller utanför skolan där elever köper produkter, träffar kunder och utför många andra företagsaktiviteter. Med hjälp av teorin om situerat lärande (Lave och Wenger, 1991) kan alla dessa faktorer som elever uppfattar påverkar deras lärande när de startar och driver sina UF-företag ses som en specifik kontext (som på engelska kallas 'a community of practice') som inte bara omfattar den fysiska miljön som eleverna arbetar i utan också regler, verktyg, språk, kultur, historia, och människor som är kopplade till en specifik kontext, och påverkar eleverna, när de börjar och driver sina UF-företag. Eleverna påpekar betydande skillnader mellan sina UF-företag och andra skolprojekt som de tidigare gjort. Detta ger värdefull inblick i vikten av olika faktorer i projektdesign i förhållande till lärande av allmänna färdigheter som alla gymnasieelever ska lära sig enligt läroplanen för gymnasieskolan 2011 (Skolverket, 2011b).

Reflektion ses som en viktig roll i hur och vad eleverna lär sig. Kolb (1984) skriver att inlärning är en cyklisk process där lärande sker genom processen av konkret upplevelse, reflekterande, abstrakt tänkande och aktivt experimenterande. Graden av framgång individer erhåller när de utför uppgifter ger feedback som, när de reflekteras, driver inlärningsprocessen (A. Kolb och Kolb, 2009). När eleverna gör aktiviteter upprepade gånger förstärker de sitt lärande vilket kallas lärandespiral (som på engelska kallas 'the learning spiral') . Många färdigheter eleverna talar om att lära sig eller vidare utveckla som försäljningsteknik, muntlig kommunikation, samarbete, planering,

ansvarstagande och självförtroende är också färdigheter som eleverna säger, eller ger intryck av, att göra upprepade gånger. Detta kan vara en förklaring till varför de flesta eleverna pratar om att lära eller vidareutveckla dessa färdigheter. Konceptet lärandespiral kan också ge en inblick i varför många av eleverna säger att de skulle vilja vidareutveckla vissa företagsfärdigheter som exempelvis att skriva företagsrapporter, bokföring, resultaträkning, balansräkning och logotyper. En orsak som kan förklara detta fenomen är att vissa aktiviteter inte upprepas. De görs oftast bara en gång och det finns inte tillräckligt med möjligheter för eleverna att få mer faktakunskaper, processkunskaper eller förbättrade färdigheter genom repetition.

För vissa elever kan reflektion om vad de lär sig leda till mer än att lära sig, eller utveckla, allmänna- och företagsfärdigheter, men också till vad Mezirow kallar transformativt lärande. Transformativt lärande är en process som innefattar kritisk reflektion där individer ifrågasätter, omvärderar, utmanar och förändrar tidigare sätt att "uppfatta, känna till, tro, känna och agera" genom ny kunskap som inte passar in i individernas befintliga referensram (Mezirow, 1990, s. 13, min översättning). Vissa elever pratar om att ändra hur de uppfattar sig själva, andra samt skolan, som ett resultat av, eller delvis som ett resultat av, att starta och driva sina UF-företag.

Slutligen nämner eleverna att intervjuerna var ett viktigt tillfälle för dem att reflektera över olika aspekter av vad och hur de lär sig. A. Kolb och Kolb (2009) menar att "de individer som tror att de kan lära sig och utvecklas har en lärande självidentitet" och att denna lärande självidentitet stärks genom att förstå vad och hur man lär sig" (s. 306, min översättning). Ett problem som A. Kolb och Kolb (2009) påpekar är emellertid att "många människor inte har tänkt på vad lärandet är och om sig själva som lärande individer" (A. Kolb & Kolb, 2009, s. 305, min översättning). Eleverna i den här studien säger att de inte har reflekterat så mycket över sitt lärande innan intervjun. När eleverna tillfrågades varför de inte diskuterade sitt lärande med andra elever i sina UF-företag, eller med andra personer som lärare, föräldrar eller vänner, svarade de ofta att de koncentrerade sig på att få saker gjorda i sitt UF-företag. Även om de säger att de hade mycket mer tid att göra detta skolprojekt (UF-företagande) än andra skolprojekt, säger de

också att UF-företagande är mycket mer komplext, innefattar fler uppgifter och kräver mycket mer arbete än andra skolprojekt som de har genomfört. A. Kolb och Kolb konstaterar att i teorin om erfarenhetslärande, är individernas "primära fokus inte omedelbar prestation eller måluppfyllelse men i den pågående processen att lära sig av dessa erfarenheter" (A. Kolb & Kolb, 2009, s. 304, min översättning). Även om det finns många exempel på kollaborativt lärande och reflektion kopplat till att starta och driva UF-företag, är dessa exempel kopplade till driften av elevernas UF-företag. Studien ger viss inblick i behovet för just dessa elever att reflektera mer kring vad och hur de lär sig under hela processen att starta och driva sina UF-företag.

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Appendix 1

Informationsbrev om en studie som undersöker kompetenser i projektet Ung Företagsamhet

Läroplanen för gymnasieskola 2011 ger skolan uppdraget att bidra till utvecklingen av elevernas företagande och kompetenser. Syftet med denna studie är att få ökad insikt om hur projektet Ung Företagande (UF) kan påverka elevernas kompetenser. Du tillfrågas att delta i studien eftersom du är en gymnasieelev som startar och driver ett företag i projektet Ung Företagande.

Studien består av intervjuer som kommer att genomföras under mars-juni 2015. Intervjun med dig kommer att genomföras i ett rum på skolan. Det krävs ingen förberedelse för dig inför intervjun. Tidpunkten för intervjun bestämmer vi tillsammans, via mail eller telefon. Intervjun beräknas ta cirka en till två timmar och spelas in på ljudfil för att förenkla sammanställning och undvika att missa information som inte förts i mina anteckningar.

Intervjuerna kommer att behandlas konfidentiellt och i enlighet med Vetenskapsrådets forskningsetiska riktlinjer. Dina svar kommer att behandlas så att inte obehöriga kan ta del av dem. Insamlad data kommer endast att användas i forskningssyfte. Skolledning, berörda lärare, vårdnadshavare, och elever kommer att informeras om studiens syfte och upplägg innan intervjun påbörjas. Det är frivilligt att delta i intervjun och du kan när som helst, och utan konsekvenser, avbryta ditt deltagande utan att ange skäl. Studien avses att publiceras som en licentiatuppsats 2017. Studien, eller delar av studien, kan också presenteras på konferenser eller i andra publicerade former som exempelvis artiklar, studiematerial eller böcker.

Personuppgiftsansvarig är Karlstads Universitet. Enligt personuppgiftslagen, PUL (1998:204), har du rätt att gratis en gång per år få ta del av samtliga uppgifter om dig som hanteras och vid behov få eventuella fel rättade. Kontaktperson är forskningsledare Anders Arnqvist. Vill du veta mera om projektet kan ni kontakta mig som doktorand eller mina handledare.

Handledarna:

Anders Arnqvist, professor i pedagogiskt arbete, Karlstads Universitet
Tel: 070-217 74 99   anders.arnqvist@kau.se

Juvas Marianne Liljas, universitetslektor i musikpedagogik, Högskolan Dalarna
Tel: 023-77 82 60   jml@du.se

Doktorand
Steven Hunter Lindqvist, doktorand i pedagogiskt arbete, Karlstads Universitet
Tel: 073-941 08 12   shl@du.se

Appendix 2

Intervjuguide

Del 1
Bakgrundsinformation

Upprepa informationen som eleverna har fått redan när jag träffade dem i deras skolor; dvs varför jag gör intervjun, att de kan avsluta intervjun och sitt deltagande i forskningen när som helst under intervjun, och min bakgrund som gymnasielärare och UF-lärare. Berätta att jag är från USA och att jag har bott i Sverige sen 1989. Prata om att det är viktigt att eleven berättar om det är något som de inte förstår pga mitt språk eller uttal.

Del 2
Basinformation om eleverna och deras UF-företag

Intervju datum

Namn på eleven

Kön

Skolan

Programmet

Årskurs

Ålder

UF-projektet ingår i vilka kurs(er)

Lärare som gav dig stöd i processen att starta ett företag

Andra lärare som stödjer andra delar av UF

Rådgivare/extern mentor

Totalt antal elever i företaget

Namnet på Företaget

Din roll i företaget (VD, ekonom, marknadsföringsansvarig, osv.)

Tidigare erfarenhet av att starta ett företag

Arbetserfarenhet utanför skolan/anställningstid

Tidigare ekonomikurser

Rapport

Affärsidé

Del 3

Instruktioner till eleverna

Jag ska ställa några frågor. Jag önskar att du ska svara på dem utifrån vad DU tycker och inte vad du tror andra i ditt företag tycker. Det finns inga rätt eller fel svar. Allt utgår ifrån vad du själv tror. Jag vill att du funderar noggrant på varje fråga. Du kan också, när som helst, svara på en tidigare fråga om du kommer på något. När som helst kan du sluta intervjun utan konsekvenser.

1. Har du lärt dig något genom att starta och driva ett UF-företag?
        a. Vad?
        b. Hur? Ge exempel.

2. Är det något som du inte har lärt dig som du önskar att du hade lärt dig, eller något som du önskar du hade utvecklat mera, genom att starta och driva ett UF-företag?
        a. Vad?
        b. Hur? Ge exempel.

3. Är det något som du har tänkt på under intervjun, som du inte hade tänkt på innan intervjun, om vad du har lärt, eller inte lärt, i samband med ditt UF-företag?

Del 4

Fråga eleven om det är någonting som eleven inte förstod under intervjun. Om det var något, fråga eleven om de struntade i att fråga om förtydligande eller om eleven frågade mig att upprepa eller omformulera frågan.

What and How Students Perceive They Learn When Doing Mini-Companies in Upper Secondary School

This thesis strives to gain further knowledge and understanding into what Swedish upper secondary school students perceive they learn, and how they learn, when starting and running Junior Achievement mini-companies. The data is comprised of interviews with eleven students each of whom ran a mini-company with other students. Situated learning theory, experiential learning theory and theoretical concepts on reflection on learning were used to analyze and further understand the data.

The results reveal that students talk about, and appear to convey, equal importance upon learning general and business skills. General skills students improved when doing mini-companies can benefit other school and non-school activities. Students perceive that learning is not only triggered by the business tasks they do, but is also influenced by a multitude of factors such as time, autonomy, assessment, and deadlines that affect what, and how they learn. Overall, students perceive factors that they associate with the mini-company project have a positive effect on learning skills, however some can also inhibit learning. Students point out many differences between the mini-company project and other school projects providing valuable insight into the importance of project design in relation to learning skills.