

SCHOOL OF ECONOMICS AND MANAGEMENT

# The Role of Experiential Learning in the Development of Students' Team Collaboration Competencies in Higher Education Settings

By

Aghakishiyeva, Pari & ElAdwi, Omar

Master's Program in Management

Supervisor: Stein Kleppestø Examiner: Ola Mattisson June 2020

## Abstract

**Purpose:** The purpose of this study is to discover if experiential learning does support the development of team dynamics, management, and leadership competencies of graduates in higher education. The sub-purpose is to understand the students' perception of experiential learning and to explore some of the existing experiential team setups that are currently being perceived as positively affecting the students' team, management, and leadership competency development.

**Research Questions:** Does the experiential learning approach support the development of team, management, and leadership skills of higher education students?

- How do students perceive experiential learning towards the development of their skills?
- What potential elements are there to incorporate into an experiential learning approach that is currently being perceived as positively affecting students' skills development?

**Methodology:** Mixed inductive exploratory study. The Master's in Management program at Lund University was picked as a case study that applies experiential learning and focuses on teams. Further, surveys were sent out to the students examining the settings of their teams and seeking the resemblance of real life-like situations in an experiential context. Follow-up interviews were conducted for more clarification.

**Limitations:** The researchers themselves were the students of a case program, which could make the research biased in some ways. However, the research was followed by the supervisor closely. Furthermore, the study focuses on three specific types of team collaboration competencies, which makes it hard for respondents to determine the effects of each component.

**Practical Implications:** It could encourage higher education institutions to incorporate experiential learning into the programs which they offer and guide them on how to implement experiential learning. The study could also be beneficial for the case program, that is, the Lund University Management (master's) program administrators and its prospective students, as it includes statistical data collected from a large scale of current students and alumni on the effectiveness of the methods used in the program.

**Conclusion:** The research revealed that students learn best when they are exposed to set-ups resembling real-life situations, in the environment which presents every kind of challenge they are expected to face in their future career. Students should be challenged in different ways, while also being supported throughout the process. In conclusion, experiential learning found to be effective in higher education settings that intends to develop students' team dynamic, management and leadership competencies.

**Keywords:** *Experiential Learning, Competence, Team Collaborations/Work, Master's in Management (MiM), Base-team, ToL sessions,* 

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# **Keywords Definitions**

**Experiential Learning:** the process of competency development (knowledge, skills, and mindsets) by experiencing hands-on tasks in real life-like situations (learning by experiencing).

**Team Collaboration/Work:** combined action of a group of individuals with a set of skills of team management, team leadership, and team dynamics.

**Base-team:** is the term used for the teams of students in the Masters in Management at Lund University.

**ToL Sessions:** Teamwork and Leadership (ToL) sessions are the sessions with a professional organizational psychologist that provides hands-on support in the team development.

Competence: an umbrella term for knowledge, skills, and mindset.

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## Chapter 1: Introduction

#### 1.1. Background

It is prominent that global universities are striving towards developing student's competence - knowledge, skills, and mindset- to fit the demand of vibrant environments, as their role in developing student's competency is becoming paramount. Taking into consideration the significant number of studies that questioned the traditional learning methods that universities used to practice as a way to develop students' competencies, an alternative method must be implemented. Additionally, bearing in mind that organizations nowadays seek management, leadership and team skills as an essence, employers continuously urge universities to develop their students' competencies (Reibe, Girardi and Whitsed, 2016). Bonesso, Gerli and Pizzi (2015) concluded that such competencies can be developed through interactive means that are equivalent to an experiential learning approach.

Experiential Learning Theory -ELT- developed by David Kolb (Kolb D., 1984), is one of the most well-known educational models. ELT defines experiential learning as the process of competency development by experiencing hands-on tasks in real life-like situations. This process is where the competency is developed through the transformation of experience. Traditional learning, on the other hand, is what is mostly approached by a lot of educational facilities that involve instructor-centered lectures. For more simplification, imagine studying the assembly of an automobile engine. One way of learning is by going to the manufacturer and observing or experiencing the assembly of the engine, whereas the other traditional way is reading a book and attending lectures. The experiential team learning theory also provides an understanding of the transformation of team experience to knowledge (Kayes B, Kayes A, and Kolb D. 2005). It also articulates that team effectiveness can be improved when the team intentionally focuses on learning.

Kolbs' theory assumes people learn best through the transformation of experience. This theory emphasizes the primary role of experience in the learning process. Although higher education settings have a lot of restrictions to apply real life-like approaches, such as time limitations and university policy restrictions, there can be an application that combines academic approaches with a strong focus on creating a real life-like experience to develop the required skills.

## "Alone we can do so little. Together we can do so much" (Lash, 1980, P.489).

Given that universities are striving towards the development of students' competence, one aspect is essentially required is the development of team collaboration competency. Taking into consideration that teams are becoming a more integral part and a key element in modern world organizations. Furthermore, organizations do not desire team collaboration, but rather consider it as essential (Riebe, Girardi & Whitsed, 2016). *Teams* are simply defined as a group of people working together towards a common goal and driven by objectives. While *team collaboration* is an umbrella term that combines the aspects of team dynamics, management, and leadership skills.

Organizations are seeking continuous improvement in their operations that can be dealt-with in teams (Manz and Sims, 2003). Moreover, organizations are increasingly becoming global and cross-functional (Cross, Rebele & Grant, 2016), which makes effective and efficiently productive teamwork a key success factor. Likewise, organizations also seek candidates with management and leadership competencies (Tarique, Briscoe and Schuler, 2015). It does not necessarily mean managerial and leadership background, but rather the essence of those concepts. Reflective mindset, for instance, is a leadership and management requirement that is an integral competency ought to be built-in in team members, and it can significantly improve productivity and engagement within the employed team members.

Overall, effective team collaboration requires management and leadership skills. Leadership is, without a doubt, of high importance towards team collaborations. If a team is willing to discuss the decision-making process, for instance, they might get stuck in the middle when making the tough calls. Therefore, having a formal executive role, or even a skill of leadership, the process of decision-making could be more effective. Leadership might be defined as the activities, influence process, motivation, interpretation, and the choice of objectives for a group of followers (Yukl, 1997). On the other hand, considering the previously given definition of a team, we can find a great link between leadership and team collaboration. This emphasizes Sohmen's statement that leadership and teamwork are two sides of the same coin (2013).

When talking about leadership, it is imperative to mention management as well. Not only because management and leadership are considered always complementing each other, but also effective team collaboration requires essential management skills. Whether building an effective team is the

intent, or identifying problems in an existing team, these analytical tasks are basically management skills that require analytical mindsets. A collaborative mindset is another mindset, according to Gosling and Mintzberg (2003), that is of the essence of managing relationships that can be utilized for effective teamwork.

Whetten and Cameron (2002) argued that "exposure to a traditional, cognitive-based curriculum without exposure to management skills does not correlate with improvements of emotional intelligence, management skills or career success" (p.11). On the other hand, Thacker and Yost (2002) claim that modern companies value teamwork skills as a top priority, while they also claim that college graduates lack these skills as they have not been exposed to practical team-related problems during their degrees. Thus, there is a need for finding the way how the graduates could be best equipped with team collaboration competencies, managing, and leading within a team. Levenburg (1996) stated that organizations are drawing the need of academic institutions to restructure the methods used to better prepare graduates because it is well-documented that the deficiencies of how academic institutions prepare graduates are still problematic, and yet to be properly resolved.

The Master's in Management (MiM) Program at Lund University is the example of a program that tries to combine the experiential learning approach with their intent of developing the graduates team collaboration competencies. As the researchers aim to study both team collaboration competencies and the experiential learning approach, those are unified and found at the MiM program.

## 1.2. Purpose

- The purpose of this study is to discover if experiential learning does support the development of team collaboration skills of graduates in higher education.
  - Sub-purpose 1: To understand the students' perception of experiential learning
  - Sub-purpose 2: To explore some of the existing experiential team setups that are currently being perceived as positively affecting the students' team collaboration competency development.

Upon the purpose, the following research questions were formulated:

1. Does the experiential learning approach support the development of team, management, and leadership skills of higher education students?

1.1. How do students perceive experiential learning towards the development of their skills?

1.2. What potential elements are there to incorporate into an experiential learning approach that is currently being perceived as positively affecting students' skills development?

## 1.3. Outline

This research consists of a literature review, methodology, research case, data analysis, and findings discussions and conclusion. The literature review chapter intended to explore existing theories revolving around some learning processes and team collaborations development. The methodology chapter explained in detail the process which the researchers followed to formulate the research, including the research limitations, and followed by data analysis and discussions of the main observations. Finally, a conclusion was drawn upon the case and the research as a whole.

## Chapter 2: Literature Review

#### "Nothing ever becomes real till it is experienced" - (John Keats)

This chapter elaborates on the learning process together with the concepts of teams and developing team collaboration skills. At the outset, the concept of active learning was investigated. The role of it in higher educational settings was presented. The importance of teaching teamwork and team skills in an effective way in higher education settings was pointed out. Finally, crucial elements shaping students' team skills in higher educational settings were presented.

## 2.1. Learning

According to Raelin and Coghlan (2006), modern business school researchers focus on experiential learning which intensifies the quality of the educational environment. Business students seek engaging learning experience which is worth adding burden to their hectic lives by helping them get further in their career (Page and Mukherjee, 2000). Patricia McCarthy and Henry McCarthy (2006) states that students practice their business skills more effectively in a real life-like professional working environment. Experiential learning will prompt the professional skills that are later required in their practical lives. This method replicates real-world learning by constructing a multidisciplinary learning experience (Wurdinger, 2005). A study conducted by Chang et al. (2003) demonstrated that students found experiential learning crucial in developing decision making, team building, planning, and managerial skills. Scalzo and Turner (2014), conducted another study, showing that the mix of active learning methods with managerial skills provide students with practical skills that will be required in their careers.

The root of active learning ideas goes far, whereas the term was first introduced by the English scholar Revans who was quite instrumental in promoting this type of educational method across the world. 19th century scholar Dewey stated that, only through practical experience, i.e. learning by doing, students are able to develop essential problem-solving and analytical thinking skills and passive learning methods based on memorization could not let them develop their intellectual abilities (Miettinen, 2000). Bonwell and James (1991) further developed the idea, by defining active learning as a process of doing something beyond passive listening which makes them think about what they are doing, while Baden and Parkes (2013) described experiential learning as being

highly reflective. Stark (2006) stated that the concept is "the engagement with the material being learned" (p 35). Weltman (2007) describes active learning as a "student-involved learning continuum."(p7), which at the very low end of the spectrum has any involvement other than simply listening (such as pauses in a traditional lecture to allow students time to think about or discuss the concepts presented); whereas "at the extreme end of the spectrum students are fully engaged in the learning process, exploring and applying ideas on their own"(p7).

The Kolb Experiential Learning Theory, developed by David A. Kolb, is a well-known premise of how students may learn experientially. His theory utilizes the ideas of the 20th century scholars, such as Kurt Lewin, John Dewey, Carl Jung, Jean Piaget, and others, who place experience in the center of their theories on human learning and development (Kolb and Kolb, 2005, p. 194). He built his theory on 6 propositions shared by above-mentioned prominent scholars:

• Learning should be based on the process with the focus of engaging students in the process rather than the outcome.

• All learning is relearning, as this process continues, the ideas of students can be tested, examined, and adjusted.

• As a student thinks, reflects, and acts to reach a resolution, more learning will put them back into the cycle of conflict and resolution. Thus, the learning process involves differences and conflict.

• Learning is a holistic process of not only cognition but also feeling, perceiving, thinking, and behaving.

• The learning process evolves the interaction of the individual with the environment and the assimilation of new experiences into concepts obtained from previous experiences.

• Constructivist theory is a base of learning, which is created and recreated by the student-"learner". This runs counter to the traditional classroom teaching that is based on the "transmission" of fixed preexisting ideas from the teacher to the student (Kolb and Kolb, 2005, p. 194). One of the most cited and popular models that have been used in educational environments to analyze and study the effectiveness of various teaching methods is classical Bloom's Taxonomy of the Cognitive Domain (Weltman, 2007) (Fig. 1).



Fig 1: Bloom's Taxonomy of the Cognitive Domain (adapted from Weltman, 2007).

As shown, at the very low end of the hierarchy, there is basic knowledge. It can be defined as understanding obtained through study or experience, which is the base information needed in order to be able to operate at the lowest managerial level. At this level, students are able to memorize and regurgitate information. The second level is comprehension, which requires students to be able to describe, summarize, and translate their knowledge. At the next application level, students are able to apply their knowledge to a particular type of situation. Analysis level allows not only to apply but also to know when and why to apply knowledge by comparing it with alternative options. Synthesis and Evaluation are at the highest level, which allow students to invent, create, judge, and critique and possess original thought to solve new problems while adding ideas to concepts. This level is the highest one to achieve. According to Paul and Mukhopadhyay (2004), active learning environments facilitate the development of these highest levels of skills. Similarly, Cannon and Feinstein (2014) argue that the taxonomy can be used as a tool to understand experiential learning, stating that as the hierarchy progresses, the difficulty of intellectual tasks increases as well. This demands to confront learners with highly complex and dynamic situations to simulate their intellectual abilities, which could be achieved by exposing them to experiential learning.

Kirschner et al. (2006), emphasizes human cognition and the relation between working and longterm memory in response to the stimulus that can lead to learning. Apperceiving mental content is the core of human thinking and the contents must be stored in the human information-processing system, otherwise, humans could not think (Saariluoma et al., 1998). This information–processing system is also known as long-term memory, that holds a massive amount of information processed earlier, and that is central to human's cognitively based activities (Kirschner et al., 2006), as is done in the problem-solving process (Saariluoma et al., 1998 P. 118). Before information can move into the long-term memory to be used later, it must first be recognized and processed in the working memory which is characterized by a limit in capacity and duration (Kirschner et al., 2006).

Therefore, according to the research undertaken by Weltman (2007), active learning is not beneficial in cases where students have limited background understanding and in fact, it may degrade the learning of higher-level students. From this research, one can argue that the active learning method is best when it is combined with traditional learning methods, where knowledge is provided and then enhanced with more involving experimental teaching. Traditional Instruction (TI) refers to practices where the teacher has the maximum control over the learning experience (Kierstead, 1985). Baker (2011) describes TI as a prevailing teaching methodology that is dominant in most classrooms today. Breunig (2005) concludes that administrators prefer TI for being more cost-effective, and as it has formed the bulk of the learning experience of students, it is still the preferred method of learning for students.

To sum up, many transitional periods have been undergone in employing the methods for teaching business related skills. From traditional to active learning methods have been utilized to satisfy the requirements of the corporate business world, for students being able to inculcate the required skills themselves. The previous president of the Experiential Education Association C.M. Itin states that although "experiential learning" and "experiential education" are used "interchangeably", learning is the change process of an individual, while education is a transactive process between a teacher and learner (Itin, 1999, p. 91). Consequently, he argues that experiential education and experiential learning are separate notions. "Experiential learning rests within the student and does not necessarily require a teacher" (Itin, 1999, p. 92). On the other hand, experiential education must also include in the learning environment not only the role of teachers but also socio-political-economic elements while also drawing on direct experience (Itin, 1999).

#### 2.2. Team skills

In survey after survey, along with communication skills, teamwork competencies are at the top of the list of attributes that employers would like to see more in their new hires. According to Thacker and Yost (2002), companies claim that newly graduated college students lack teamwork competencies, which are highly valued by them. Hence, it is essential for higher education settings to develop teamwork competencies in students and enhance their learning process in teams in order to prepare them to work in teams for future career success. Some scholars (McKendall, 2000; Deeter-Schmelz et al., 2002; Thacker and Yost, 2002; Page and Donelan, 2003; McMurray et al., 2016) state that, it is the responsibility of business schools to incorporate training on team-building into the curriculum to equip students with knowledge on teams and develop their teamwork skills. As also elaborated by Stone and Bailey (2007) the importance of training students in real life-like situations is crucial to enhance their teamwork abilities. Other scholars (Bacon, Stewart and Silver, 1999; Bolton, 1999; McKendall, 2000; Ettington and Camp, 2002) see the main problem as students being assigned to teams to complete a project right after being lectured about team effectiveness and team dynamics, rather than developing teamwork skills and training on how to be a team player. Instead, realistic preparation should be provided with proper development of teamwork skills, an understanding of team dynamics, team development process, and interactions between team members (Alie et al., 1998; McKendall, 2000; Deeter-Schmelz et al., 2002; Knott and Kayes, 2012). Active learning using cooperative approaches is well suited for preparing business students because of its social, teamwork, and real-world applicability (Sims, 2006). As reviewed, there seems to be a clear justification for utilizing collaboration and teamwork in the business classroom.

Before seeking the ways of promoting team competencies, a clear explanation of the competencies should be given, as an understanding of the required competencies is crucial for creating and assessing training (Salas et al. 2001).

Baker et al. (2005) define team skill competencies as "capacity to interact with other team members" (p. 236). At an individual level, team competencies are the characteristics that are required from a team member to be able to engage in teamwork successfully; these competencies are team-generic and can be transported to other teams. Figl (2010) mentioned that these

competencies can only be taught by putting students into the teams: the teams that are built according to certain rules and supported through the way which will build the team members' skills maximally. That is to say, students can learn team competencies by being part of the teams and guided by experts through the process.

A simple definition of teamwork is the ability of team members to collaboratively devote their efforts to work together towards a unified goal. Given that team members vary in many ways, there will be differences in opinions, differing ways of thinking, conflicting interests, diverging decisions, and so on. All differences must be actioned upon if the team is to succeed. Thus, continuous evaluation of the process is required at constant intervals (HBR managing teams, 2010). This is one of the team management skills needed to maintain the effectiveness and efficiency of the team. Ultimately, those differences enable teams to gain the potential to achieve great outcomes (HBR manager's handbook, 2017). Nevertheless, leading team members is another competency that goes hand in hand with team management competencies, that ought to unite people with fundamentally different individuals with different opinions, skills, and backgrounds. In this context, team management and team leadership are an essential part of the team competencies. Thus, the researchers of this study made an umbrella term "team collaboration competencies" under which leading, managing and team dynamics - three vital team competencies are united.

Following, some team components influencing team collaboration competencies will be discussed (see section 2.3). The following elements are some basic team setups that are currently being implemented. The reason for choosing those elements was because those elements were being implemented in the case study, on which the research survey had been built (see chapter 4 Research Case):

## 2.3. Factors Influencing Teamwork Competencies Development:

**The selection process of team members:** One of the deciding factors of team success could be assigning students to teams. Left to their own devices, students usually choose whom to work within most educational environments without considering the outcomes of these decisions. Mohamed Bakir (2006) states that, as students do not have expertise in proper team building and are not aware of the required attributes, their selection method is based on friendship, teacher

intervention, or previous teaming history rather than any specific criterion. Harris (2003) sees it as a risk that could both create friction between team members and hinder the successful outcome of a project. Not properly done, this can result in clashes between the members, conflicts in ideas and opinions, as well as roles and expertise, which may jeopardize the team performance as well as the development of individuals' team skills.

According to Oakley et al. (2004), rather than allowing students to self-select, teams should be formed by instructors. This would result in the stronger students leaving the weaker ones to shift for themselves, while seeking one another out in the class. Self-formed groups were found as the worst group work experiences, while instructor-formed ones as the best by 155 students by a two to one ratio by Feichtner and Davis (1984). Authors support this finding by the fact that, when students will join the company, companies will not present a list of employees and ask who they prefer to team up with or either working with others or alone.

Regarding the selection process, the random process is considered to be quick and the most effective technique to assign students to teams. Yet, personal interest, skills, and abilities and characteristics of students are not taken into consideration (Johnson and Johnson, 1999). Eisenhardt et al. (2009) state that an ideal team is assembled as a heterogeneous team of diverse personalities, ages, genders, industry experience, and functional backgrounds. Therefore, teams which combine two selection processes in order to complement each other's weaknesses: diversity-based and random selection thought to be the best. Team members are selected according to maximum diversity. Then the random selection is implemented through computer programs, which assign students to teams by including diverse variables such as project and time preferences and work experience (Chapman, K. J. et al., 2006).

**Diversity:** Diversity management demands the ability to create an effective diverse workforce while acknowledging the fact that understanding discrimination and its consequences will always be vital in any organization. According to Andrews and Higson (2008), business students aspire to join the workforce and deal with teamwork related problems as soon as they graduate. They face various challenges related to communication while seeking cooperation with their team members. In order to avoid the miscommunication, linguistic and personal differences should be profoundly understood. Henderson (2005) accepted language as a connectivity and power source.

Thus, proper communication skills are required for business graduates. Overall, managing language and cultural diversities are considered to be skills that are essential for being a successful manager and team member.

Language Diversity: According to Edmondson and Nembhard (2009), people who are engaged in cross-boundary teaming have a tendency of seeking their self-benefit. Therefore, it could be asserted that "the successful group experience contributes positively to the learning and well-being of individual team members rather than frustrating, alienating, or deskilling them" (Wageman, Hackman, Lehman 2005, p. 4). Carlile (2004) acknowledges that team members learn to translate and transfer knowledge across semantic, syntactic and pragmatic boundaries once they learn new languages, and master the skills of interpreting a particular situation differently and learn how others' interest can be different from theirs. Hence, training team members in group communication, decision making, problem-solving, conflict handling, setting acceptable behaviors and attitudes, accepting and managing cultural differences at an early stage will make multicultural teams more productive, effective, and successful (Stahl et al., 2010).

**Gender Diversity:** There is an ongoing discussion in the literature about how crucial it is to manage gender-based differences in teams considering historical discrimination against female members. It is argued that no studies have yet answered whether gender diversity can positively or negatively affect teams' performance (Dia, Byun, & Ding, 2019). Nevertheless, some studies concluded that gender diversity results in unlocking key success factors on team performance such as innovation (Hewlett, Marshall, & Sherbin, 2013). While other studies concluded that gender diversity effect as such diversity increases conflicts (Chowdhury, 2005). But in context, developing students' competence in team collaboration, requires students to be faced with struggles along the way in their learning journey.

**Personality Diversity:** Empirical research (Pieterse et al, 2012) shows that there is a positive correlation between team success and personality diversity measured by Keirsey-Bates Temperament Sorter in student software engineering teams. However, research with information system development teams (Trimmer, Domino and Blanton, 2002) showed that personality diversity can also cause a conflict between team members. This argument could be concluded by the ideas of Clinbell and Stecher (2003) that, learning to handle personality diversity may lead to

better understanding and management of team processes and create a team which is balanced regarding to its members' weaknesses and strengths.

**Educational Background and Work Experience Diversity:** Adair (1986) describes a successful team as a team which is made up of members who have not only a personal desire to achieve a common goal and commitment, but also balanced personal abilities and technical skills. "What turns team-building into art is that the bricks, like legendary men, are made of different types of clay and not wholly predictable after firing" (Belbin, 2000, p. 136). Every individual member brings distinct abilities, skills, and ideas to the team, and it is essential to clarify who is going to do what according to those skills in order to reach the maximum output.

As indicated by formally recognized education credentials, the members with various educational levels are demanded given the complexity of various jobs in teams. Thus, divergent ideas, distinct alternatives, and novel approaches are valuable assets for the team, which is provided by members with different educational levels (Drach-Zahavy and Somech, 2002; Talke and Kock, 2011). However, the evidence has been ambiguous. Empirical studies on the "common knowledge effect or the tendency of teams with diverse information to focus on information that they have in common rather than uniquely-held information" (Gigone, 2010, p 124) — demonstrated that sometimes the biggest challenge for the team could be the basic act of ensuring that unique information is shared among all the members through discussions. Stasser together with his colleagues conducted experiments which consistently proved that, even if the distinct knowledge is vital to the team performance, members have the tendency of discussing shared knowledge rather than the unique one (Stasser, Stewart and Wittenbaum, 1995). Consequently, without ensuring the inclusion of unique knowledge, team performance cannot be boosted as it requires uniting the diverse knowledge of various team members on the task. Therefore, it is essential for managers to learn how to manage educational/skill diversity and appreciate it, rather than looking for common grounds.

**Heavy Workload:** Although several authors showed that heavy workload could increase tension and negatively impact teamwork, as Gardner (2012) stated, "No pressure, no diamonds". Teams that work on cannot-fail projects can arm themselves with all key tools that are required to reach their maximum potential by simply having a better understanding of the counterforces derailing

their best intentions. It can be argued that it is especially essential in higher business education, as it will teach future managers how to manage workload under tight deadlines and pressure while being able to communicate with team members to share the heavy workload.

**Duration:** Empirical study conducted by Bacon, Stewart and Silver (1999) demonstrates that there is a strong correlation between team longevity and positive outcomes of a project, as well as improved team experiences. They argue that frequent change may keep the students from team dynamic development and learning to resolve conflict which inevitably arises in teamwork. It is also feasible to develop team competencies of students by allocating them team projects that last for a long period of time. An approach of evolving longer projects to improve management and team competencies of students was proposed by Smith, Smarkusky and Corrigal (2008).

**Supporting Structures:** In a meta-study, Taylor et al. (2005) revealed how behavior modelling training has positive effects on developing team skills: team-level feedback can be provided by instructors while in a peer-review teammates can give feedback to each other. Other scholars highlight the essence of explicit transfer of knowledge and training of team skills in curricula, promotion of a positive attitude toward working in teams and reflection on team processes (Chen, Donahue and Klimoski, 2004). Researchers demonstrate that training by instructors on team skills, that happens before collaborative learning, prompts teamwork and is linked with positive learning outcomes and team interaction (Prichard et al, 2006).

**Reflection of teamwork:** To ensure successful teamwork and supportive relationships among team members, instructors can plan reflection sessions, provide individual members with constructive feedback and enhance social and team skills (R. Johnson and Johnson, 1999). Reflection upon individual member's behavior together with goal attainment promote repertoire of team-related strategies of students and help them make their own conclusions for upcoming teamwork. Reflection is "the process of internally examining and exploring an issue of concern, triggered by an experience, which results in a changed conceptual perspective" (Boyd and Fales, 1983, p. 99).

Schön and DeSanctis (1986) highlights the fact that, while reflection-on action takes place afterward, reflection-inaction happens while teamwork is in process. It is crucial for teams to reflect upon the process, clarify whether working together should be changed or is going well and

appreciate helpful actions of members in order to form successful teamwork. To develop social and task reflexivity, teams have to reflect on new tasks, as well as team conflicts, mistakes and successes, organizational and member changes. Bolton (1999) also highlights how team reflection may accelerate team transformation from one stage to the next level. Lewis et al., (1998) proposed a journal for keeping the track of the whole teaming experience and similarly, for the business strategy course Wills and Clerkin (2009) used reflective writing as well.

**Training and Supervision for Students:** Studies reveal that team skills of students do not simply develop by putting them into teams, instead this should be facilitated by an instructor (Porter, 1993). Drury et al. (2003) asserts that students usually lack teamwork experiences at the beginning of the studies. Hence, it is particularly essential for tutors to guide and support them during this time.

## 2.4. Chapter Summary

In summary, literature review shows that action learning built on specific elements could allow students to have knowledge (basic understanding), skills (the learning acquired through the repeated application of knowledge) and finally, mindset (not only understanding and being able to apply something, but also attitude/way of thinking) about teams and team skills. Let us take diversity as an example. One can learn a myriad of theories about dealing with diversity and even develop some skills with having experience. But does it mean that it changes the mindset-attitude towards diversity fundamentally? The following chapters will show how students who have been exposed to the above-mentioned type of learning for ten consecutive months believe this unique method has been successful so far.

## Chapter 3: Methodology

Research onion by Saunders, Thornhill, and Lewis (2007) gives profound insights into the methods and strategies linked with the research topic. Before reaching the central point- data collection and analysis, there are important layers to peel away, which will present adopted methodological reasoning together with research design, data collection, and analysis:



Fig 2: The research onion (adopted from Saunders, Lewis and Thornhill, 2006)

## 3.1. Research Philosophy

Research philosophy refers to the development and nature of knowledge in a certain field and it contains important assumptions that underpin the research strategy together with linked research methods (Saunders, Thornhill, and Lewis 2007). Considering the complexity and involvement of an array of environments on which assumptions are made, in business-related and managerial research, the single truth does not exist, it is rather dependent on the context and the interpretation of the researchers. Assumptions play an essential role in how the researchers interpret the research questions and collected data and the methodology they decided on. These all are characteristics of a relativist viewpoint, which is the ontological approach of this research. This research is based on the fact that there may be different realities. During the study multiple perspectives gathered

through a blend of quantitative and qualitative methods- *triangulation* (Easterby-Smith et al.,2012). Thus, the epistemological approach of the study is considered to be constructionist. Finally, the philosophy of this research is interpretivism. As Saunders, Thornhill and Lewis (2007) mention, interpretivist philosophy is highly appropriate for business and management research. The authors support this idea by stating that, not only business situations are complex, but also unique and a function of a particular set of individuals and circumstances. Thus, researchers in business and management related research take interpretivist philosophy, accepting that knowledge is not independent, rather, it is dependent on surroundings and consequently, the differences in realities within these surroundings.

#### 3.2. Research Approach

The study aimed to explore a topic on which there is a scarcity of direct theory, thus the research conducted in an inductive manner (Bryman and Bell, 2011). As Bryman and Bell (2011) stated, in order to further move in the research, there was a need to collect more information. Therefore, firtsly, an interview with MiM program director Stein Kleppestø was conducted, in order to collect some data which gave a direction to the research. Theoretical review was then done in order to have back up of the information which would be tested in data collection. Following that, a questionnaire was made, in order to understand how far students believe base-teams served its' purpose with some open-ended questions, intending to have more in depth answers. And afterwards, in order to have more qualitative data on what are the reasons behind the elements that worked/did not work, some of the survey respondents were interviewed. Finally, some conclusions were drawn whether experiential learning is the good way of developing desired skills of students, through which the ways of developing these skills of students in higher educational settings were formulated. Thus, as Sauders, Thornhill and Lewis (2007) stated, no predetermined theory applied, rather, theory followed the data.

The inductive approach allowed the generation of new ideas for further research while it also involved an extended period of data collection and analysis to derive a well-grounded theory (Bryman and Bell, 2011).

#### 3.3. Research Design

A Master Thesis can have one of the four purposes: exploratory, explanatory, descriptive, or improving study (Runeson and Höst, 2009). This study takes an exploratory approach, as it investigates a certain situation by taking a case approach and seeks new insights in the matter. By generating new ideas, it provided a foundation for further research, which is given at the end of the research paper (Runeson and Höst, 2009).

#### 3.3.1. Research Strategy

This study adopted a case study as a research strategy. The process of studying a phenomenon with its context is called a case study. With regards to education, as in assessing the effectiveness of a program or a particular object, the role of a case study becomes more and more prominent (Gulsecen and Kubat, 2006). It provides an understanding of the underlying behaviors and reasoning the statistical data collected, explaining both the process and the results of the phenomenon at hand (Zainal, 2007). As Saunders, Lewis and Thornhill (2007) stated, the case study strategy is highly appropriate for an exploratory approach, by generating answers to the questions of "how" and "what". It was the case in this study as well (see section 1.2. Purpose & Research Questions). Researchers chose MiM program base-teams as a case, considering its strong focus on experiential learning and specially built set-ups which designed specifically to improve team dynamics, management, and leadership competencies of students. These factors overlap with the research purpose of the study, which makes MiM as a perfect case for the study (see chapter 4).

#### 3.3.2. Research choices

A case study refers to the empirical investigation of a phenomenon within a real-world context by adopting a blend of data collection methods, which may provide both qualitative and quantitative data for interpretation and analysis (Yin, 2009, Sekaran and Bougie, 2016). Both qualitative and quantitative methods were applied in order to cancel out each other's limitations and also considering the fact that adopting a mono method may jeopardize the quality and result of the survey responses. Qualitative research offers an analysis which does neither limit the nature of participants' responses, nor the scope of the research (Collis and Hussey, 2003). On the other side,

qualitative research is considered more appropriate for small samples. Hence, to perceive its results as the reflection of the opinions of a large-scale population is risky (Bell, 2002). In order to overcome the limitations of each individual method, both qualitative and quantitative (mixed research) were conducted for the research survey.

A mixed-methods approach-triangulation is advocated increasingly within business and managerial research. As Saunders, Lewis and Thornhill (2007) mentioned, in order to ensure the accuracy of the data, triangulation entails the different data collection techniques within a single study. This research blended qualitative data gathered by semi-structured interviews with quantitative data collected by a questionnaire, which is considered a valuable way of triangulating by Saunders, Lewis and Thornhill (2007).

#### 3.3.3. Time Horizon

The time horizon of the research is cross-sectional, considering the fact that the research did not study people "at more than one point in time to answer the research question" (Sekaran and Bougie, 2016, p. 104), because of the time limitations that the researchers faced. It is noteworthy that, to a certain degree this research reflects in itself the purpose of longitudinal studies as well. As Sekaran and Bougie (2016) mentioned, the longitudinal studies examine the phenomenon at more than one point, in order to understand the changes after some time as well. As the survey sample was not only current students but also alumni, the researchers of this study also to a certain extent touched upon "long-term effects" of the base-team concept, as they had the chance of recognizing the impact of base-team experience on students' skills after some period of time.

#### 3.4. Data Collection Method

#### 3.4.1. Background Information

A significant amount of time was spent on data collection as it was a vital part of the research. As described in the Case chapter, first-hand qualitative data was collected from the MiM program director, Stein Kleppestø, and as a second-hand data, the MiM program website was used. Having done theoretical research on obtained data, the key challenge was then to contact students from various years in order to have a diversity of respondents. Current students were contacted by using

the Facebook platform. Considering the fact that a number of surveys are shared every day to fill in, people have a tendency to easily skip them. Therefore, each student was contacted directly using Facebook profiles, which successfully resulted in all of them filling the survey. With regards to the alumni, Program administrator Tove Karnerud was contacted, who provided mail contacts of some alumni. However, the majority of them were contacted using the LinkedIn group of alumni associations which served as a pool of MiM program graduates. Although the survey link was shared within this group, there was a minor change in the number of respondents. Then the same logic followed here as well: each alumnus was contacted individually and as a result, the number of responses doubled. Ultimately, for the qualitative data collection, all of the student profiles in the LinkedIn group were screened carefully as the aim was to recruit the same number of students from different years to interview. The reasoning behind taking students from different years was the fact that experiences differ each year, thus, graduates from different years would add different qualities into the study.

#### 3.4.2. Quantitative Data Collection Method

**Questionnaires:** Sekeran and Bougie (2016) define a questionnaire as "a preformulated written set of questions to which respondents record their answers usually within rather closely defined alternatives" (p. 142) and are aiming for collecting large numbers of quantitative data. They are less time consuming and less expensive than observations and interviews; however, they do have certain disadvantages that will be discussed later.

**Type of the questionnaires:** Online questionnaires were used as they are the easiest and fastest way of receiving responses. However, as online questionnaires have the tendency of being ignored by people, they have been combined with the characteristics of personally administered questionnaires (Sekeran and Bouige, 2016). That is to say, each respondent was sent an online questionnaire individually and was asked to fill it (as described in "Background Information" above). This method doubled the response rates, although being more time-consuming.

**Tools:** After setting up the survey questionnaire composed of Likert scale and reflective questions, it was incorporated into Google Forms as the platform is free to use without limitation on responses. Additionally, Google Forms automatically create a spreadsheet summarizing all responses and providing easy access to the quantitative data collected. Furthermore, automatically

created charts summarizing the responses from respondents were easily used in the "Discussion" chapter. A copy of the survey questionnaire can be found in the appendices.

**Questionnaires logic:** As described in the Research Case chapter (see chapter 4), the base-teams are built upon specific principles (maximum diversity, duration, forced selection, and supporting structures) and all of these elements are considered to be part of experiential learning. Therefore, the questionnaire revolved around these specified elements (components), seeking the students' opinions on the level of development that each element played. Furthermore, the designed learning outcomes of those teams are building team dynamics, management, and leadership. Therefore, each element is examined among those different outcomes (see Appendix A). The result of the questionnaire allowed us to generate an answer for the research case, which is whether the program has fulfilled its ambition or not.

The survey questions had been formed and discussed with the supervisor. Later the authors forwarded the questionnaire to a small number of students as a pre-test of instruments. Some of the students stated that the questions might be perceived as repetitive if the respondents would not pay enough attention. Because the authors are repeating the questions of each criterion among three different outcomes, the questions are then designed with a brief introduction as a reminder alerting the students of the specific area of question.

**Questionnaire formation:** As Saunders, Thornhill, and Lewis (2007) mention, a good introduction is essential in terms of motivating respondents to respond to the questions attentively, presenting the general idea behind the survey, and ensuring respondents' confidentiality. A brief introduction was introduced together with ethics clearance by the researchers.

The questionnaire started with a couple of warm-up questions such as information about respondent's year of graduation and gender, in order to have the profile of the respondents. As Saunders, Thornhill and Lewis (2007) stated, closed questions help researchers code information for subsequent analysis. Some respondents prefer open questions to well-designated categories in confined ones, as they give them the opportunity of making additional comments. Therefore, the questionnaire had open questions that invited respondents to make a comment on the points that might not be covered adequately or fully.

As a result, a 38-item questionnaire that has three warm-up questions, twenty-nine Likert-scaled statements, and two open-ended questions were prepared. The Likert scale is a rating scale "to measure the level of agreements of respondents to the statements on a five-point scale with the following anchors 1 = Strongly Disagree, 2 = Disagree, 3 = Neither Agree Nor Disagree, 4 = Agree, 5 = Strongly Agree" (Sekeran and Bouige, 2016).

**Ethics clearance:** The respondents were assured of the anonymity of the survey. They were notified that they would not benefit from this research and would not be made any payments. The participation was on a voluntary basis and they could withdraw from the research at any time. All of these were made clear prior to the survey in a written consent form.

#### 3.4.3. Qualitative Data Collection Method

Cross-sectional survey techniques followed by a semi-structured interview were used for gathering data. A survey validity is dependable on the response rate (Jones, Baxter and Khanduja, 2013), therefore face-to-face interview surveys are preferred since they have higher response rates. Taking into account the ongoing Covid-19 pandemic, it was decided to substitute face-to-face interviews with virtual interviews.

The qualitative data was needed to understand the key observation of the collected surveys and why the respondents considered language diversity a neutral contributor towards their development of team dynamics, management, and leadership. Moreover, students were asked about their opinions on the role of experiential learning in their learning and competency development. Finally, the students were asked about any suggested elements that were not mentioned in the survey that could be a setup which would develop student's competencies.

**Semi-Structured Interviews:** Unstructured interviews offer flexible interview flow, which leaves room for new discussions that may not be expected initially. These discussions have the potential of adding new perspectives to the research. On the other hand, this flexible style could lead the interview to deviate from the main research objectives and aim (Gill and Johnson, 2002). Therefore, the research conduction involved a semi-structured interview: three questions were prepared to guide the interview to be in line with the prespecified research objectives, while additional questions were used to unfold the reasoning behind certain answers.

**Interview Conduction:** After having 115 responses back, some alumni and current students were interviewed and asked specific questions to understand the reasoning behind the survey responses. The interview participants were chosen according to the criteria of diverse graduation years and whether they were available for the interview or not. Twenty-five respondents (around twenty percent) were interviewed. As they had already been familiar with the research, they were informed that it was a follow-up interview to the survey to understand the reasoning behind the survey responses.

#### 3.5. Data Analysis

#### 3.5.1. Quantitative Data Analysis

As the purpose of the survey was not to make comparisons between different components (diversity, forced-choice, duration, and supporting structures), instead to draw conclusions for each component individually, utilizing statistical programs were not advised to the researchers by a statistician. The mean value of the item responses was determined in order to reveal the level of agreement on each component of the survey (where 0 to 1.4 it was taken as strongly disagree, 1.5-2.4-disagree, 2.5-3.4-neutral, 3.5-4.4-agree and finally 4.5-5 as strongly agree) and standard deviations were found accordingly in order to identify how tightly all the various examples were clustered around the mean. In order to show how the calculations were made, one example of cultural diversity and team management is given.

For example: let us take the effect of cultural diversity on team management according to the respondents.



Figure 3: Cultural Diversity Responses. Simplifying the Average Mean Value & the Standard Deviation

The average mean value is calculated as:  $\frac{1\times 3 + 2\times 4 + 3\times 22 + 4\times 54 + 5\times 32}{115} = 3.94 \approx 3.9$  $\frac{1\times a + 2\times b + 3\times c + 4\times d + 5\times e}{N}$  where a, b, c, d, and e are the number of respondents which chose 1, 2, 3, 4 and 5 accordingly, while N is the number of the all the respondents.

The Standard Deviation is calculated by the formula  $\sqrt{\frac{\sum (x-\underline{x})^2}{n-1}}$ 

Where x is each of the values of the data,  $\underline{x}$  is the average mean value, and n is number of the data points(population)

In this case, 
$$\underline{x} = 3.9$$

And S.D = 
$$\sqrt{\frac{3(1-3.9)^2 + 4(2-3.9)^2 + 22(3-3.9)^2 + 54(4-3.9)^2 + 32(5-3.9)^2}{115-1}} = 0.92 \approx 0.9 \approx 10^{-1}$$

All other components were calculated as in the example. The record of all responses is kept and is ready to be presented upon request.

## 3.5.2. Qualitative Data Analysis

Bryman and Bell (2011) considered qualitative data highly complicated to be analyzed straightforwardly. Similarly, Saunders, Thornhill and Lewis (2007) also discussed the challenges related to qualitative data analysis, highlighting that data is tentative to the interpretation of the researchers. In order to overcome the mentioned challenges, narrative analysis methods were

incorporated into semi-structured interviews. That is to say, the researchers were able to narrow the experience of the respondents by posing three narrative questions, which could be found in the Appendix B.

#### 3.5.3. Quantitative Data Quality

As Saunders, Thornhill, and Lewis (2007) state, the pretesting of structured questions is crucial to ensure that the instrument is free of problems related to wording or measurement and there is no ambiguity in the questions and they are understood by the respondents. A small number of respondents (six) were involved in pretesting to test the comprehensiveness and appropriateness of the questions. As a result, small confusions were detected, and adjustments were made accordingly. In designing the survey, questions were sourced and identified and validated with the course director and through the program's official website. Only then the questions were integrated into the survey using the online questionnaire. A 5 scale Likert-scale was used to avoid any bias (Bryman and Bell, 2001). Finally, the responses were checked for any error and twelve of them were removed from the sample due to discrepancies- blank responders.

#### 3.5.4. Qualitative Data Quality

Saunders, Thornhill, and Lewis (2007) mention that the aspects to take into consideration when addressing qualitative data quality are credibility, transferability, dependability, and confirmability.

The credibility of the research shows the degree of acceptability of the study findings to other researches. As case studies are based on real-world settings, they tend to be highly reliable (Runeson and Höst, 2009). Additionally, the credibility of the research is highly increased by using triangulation- blend of both quantitative and qualitative data for analysis from different angles (Easterby-Smith et al, 2012). All of the records were kept for reexamination of the study in order to check the research validity. Nevertheless, the study was conducted by two researchers and was guided by a highly professional expert and was peer-reviewed in the middle of the process, i.e. the study was assessed by various people from various angles.

Shenton (2004) describes dependability as ensuring that the work could be repeated in future research as well. Detailed records of the whole process and visual representations ensure dependability.

Conformability refers to the approach of the study to bias (Bryman and Bell, 2011). Interview questions were unbiased, as interviewers tried not to use "loaded questions" of their own perception, instead, they used neutral questions based on the respondents' own answers from the questionnaire (Saunders, Thornhill, and Lewis, 2007). All the interviews were recorded, and respondents were informed about that, which according to Saunders, Thornhill, and Lewis (2007), could cause some bias as they were unsure about confidentiality. To avoid this, respondents were ensured that their anonymity would be preserved, and the final version of the records was sent to them before uploading. Finally, as the researchers of this study themselves were a part of the experience (researchers were current students of the case program), they could be biased, and current program students could be biased toward them as well. Therefore, the main focus of the interviews was alumni rather than current students, as interviewers do not have any personal information regarding alumni's teams.

Finally, although the transferability of the case-based research is generally low, the heterogeneity of the case population, (students from all over the world with various cultural and educational backgrounds, gender and ages) made this study transferable enough to any higher education master program on business (Bryman and Bell, 2011).

#### 3.6. Boundaries

One major issue faced by the participants was to answer the questions related to their base-team experience. It is quite hard to differentiate the learning outcomes that they gained from the base-team from the outcomes of other elements in the program. The issue in that as discussed previously was studying an element of a large structure. The way to overcome this challenge was trying to include the written introduction that would serve as a filter to the ideas of students in an attempt to sift the information required for the study. At the same time, a small introduction was included to each question as a quick reminder of the purpose.

As Saunders, Thornhill, and Lewis (2007) mentioned, there are a number of different levels of access to respondents: the first one, physical access, was mentioned above. The second one was to get cognitive access, to make sure the selection of the right representative sample of participants. Therefore, as mentioned above, probability sampling was chosen as the sampling design: "all elements of the case population were considered and each element had an equal chance of being chosen as the subject" (Saunders, Thornhill, and Lewis, 2007, p 192). This is considered to be one of the best methods, as the researcher does not take into account their feelings but selects on the simple probability. Additionally, the relevancy of the questions had been confirmed with the supervisor.

## Chapter 4: Research Case

An interview was conducted with the MiM program director Stein Kleppestø. During this interview, various insights were noted that helped to formulate the survey and interview questionnaires. The interview also enlightened the program intents, as well as the meaning of the base-team concepts.

The Masters in Management Program (MiM) at Lund University, is a program that initially started forming experiential learning approaches in 2015. Previously, MiM was a traditional masters program. In 2015, the program went under great transformation from traditional learning to experiential learning. Today, the program goes beyond the theoretical approach to real life-like challenges. It is ought to refine, build, and develop individual competencies through individual and group work. The reason why researchers choose the teams in this program as a case is its strong focus on experiential learning and specially built set-ups which serve to improve team dynamics, management, and leadership competencies of students which overlaps with the research purpose of the study.

The pillars of the program are tutorial sessions, shadowing project, Organization project, simulation games, and so forth. One of the key elements of the program that was found to be the most suitable for the research is Base-team. Base-team is the term used for the teams of students in the Masters in Management at Lund University. Those teams have been applied in the program for the past five academic years. The teams extend working for the whole duration of the program.

During the interview, program director Stein Kleppestø stated that the fundamental logic of the program is to develop students' understanding of management and leadership. In order to approach this development, collaboration is required. Therefore, it is logical to formulate heavy assignments that also require collaboration. In other words, it became obvious that there was a need to formulate working groups in which students not only read some literature about teamwork, management, or leadership, but also, they experience team collaborations.

Upon the purpose and the needs of the program, base-teams were formed with a large number of team assignments, which would motivate or mandate the students to spend a lot of time with the team for a real purpose. These assignments also cover the whole duration of the program, which will give the students the experience of a real life-like scenario. Furthermore, the MiM program

took the leverage away from students for choosing their teammates, as this is not what actually happens in the real-life world. Moreover, the composition of the teams is based on maximum diversity. Language diversity, for example, is intentional to get students to deal with language issues. On the other hand, individuals have personality traits that need a change, which would alter only by working for a relatively long period of time with the same team.

Overall, learning in the MiM program combines both traditional and action learning styles. However, students participate in the traditional-lecture parts on an individual basis. While within base-teams, their learning process is conducted by an experiential approach. That is why, the case of this study is not MiM program, but MiM program base-teams. The base-team is set with specified components fostering experiential learning, which is meant to develop the individuals' competencies in team dynamics, management, and leadership. Those settings are based on the maximum diversity of team members, where students do not have the leverage to choose their own teammates. Instead, they are chosen by the program admins using specific criteria that maximizes diversity. In addition, the program relies heavily on team assignments that extend for the whole duration of the program. Nevertheless, to keep track of the development and keep students in the right direction, some supporting structures are placed to aid students and direct them towards the right way of development. In short, the characteristics of the base-teams are:

- Diversity (cultural, educational and experience background, language, age and gender, personality)
- Selection process. (no leverage of choosing teammates random)
- Duration. (extends for the whole program duration)
- Heavy on team assignments.
- Supporting structures. (learning journals personal reflection, learning tutorials, Teamwork, and leadership ToL sessions)

In short, those elements are what is being implemented in the MiM program, that is meant to be an experiential approach. The research ought to examine if those settings are helpful for students' development, which in turn means experiential learning is the way of developing students' competencies in team dynamics, management, and leadership.

### Chapter 5: Analysis and Findings

#### 5.1. Quantitative Findings

This section presents the findings from the quantitative research-questionnaire based on 115 responses. All respondents were the students of Lund University MiM program within the last five academic years (2015-2020), as the base-team setup has been conducted since 2015. A total number of 127 students completed the survey. Twelve participants were removed from the sample due to not submitting the survey at the end, which resulted in all of their responses being blank. Hence, a final sample of N =115 participants was retained for analysis. In order to determine to what extent students agree on the positive effect of each specific component of the base-team setup, the average mean value of the item responses was calculated. If the mean value was 0-1.4 it was counted as 'strongly disagree', 1.5-2.4-as 'disagree', 2.5-3.4 'neutral', 3.5-4.4 'agree', and lastly, 4.5-5 as 'strongly agree'. Finally, the standard deviation was calculated in order to find out how much the members of a group differ from the mean value for the group. The questionnaire and all quantitative findings can be found in the appendices section.

#### 5.2. Profile

The sample was composed of 115 participants from five successive academic years. The percentage of female students is slightly higher than that of the males since the number of female students was larger than that of the male students in all the given years. The majority of the survey respondents (52) were current students, which is 17 for 2019, 21 for 2018, 16 for 2017, and the rest for 2016.



Figure 4: Quantitative Data Profile

## 5.3. Effect of components of base-teams on students' team collaboration skills

For simplicity's sake, all the findings are presented in a table:

		Team Dynamics		Management		Leadership	
		М	SD	М	SD	М	SD
Diversity	Cultural	4.04 = 4 (Agree)	0.89 = 0.9	3.94=3.9	0.92=0.9	3.94=3.9	1.03=1
	Work Experience & Educational Background	4.08 = 4.1 (Agree)	0.99 = 1	3.96 = 4	1.07 = 1.1	3.82 = 3.8	1.15 = 1.2
	Language	3.28 = 3.3 (Neutral)	1.16 = 1.2	3.3	1.16 = 1.2	3.18 = 3.2	1.2
	Age & Gender	3.56 = 3.6 (Agree)	0.98 = 1	3.59 = 3.6	0.99 = 1	3.49 = 3.5	1.1
	Personality	4.19 = 4.2 (Agree)	0.95 = 1	4.26 = 4.3	0.88 = 0.9	4.2	0.92 = 0.9
Workload Team Assignments		3.68 = 3.7 (Agree)	1.05 = 1.1	3.9	0.91 = 0.9	3.8	0.93 = 0.9
Selection Process		4.09 = 4.1 (Agree)	0.98 = 1	4.09 = 4.1	0.97 = 1	4.03 = 4.0	0.99 = 1
Duration		4.12 = 4.1 (Agree)	1.1	4.05 = 4.1	0.99 = 1	3.84 = 3.8	1.16 = 1.2
Supporting Structure	ToL Sessions	4.03 = 4 (Agree)	0.94 = 0.9	3.91 = 3.9	0.91 = 0.9	3.83 = 3.8	1
	Learning Journals	3.6 (Agree)	1.18 = 1.2	3.5	1.23 = 1.2	3.48 = 3.5	1.3
	Tutorials	4.09 = 4.1	0.97 = 1	4.02 = 4	0.96 = 1	3.69 = 3.7	1.11

## M-Average mean value, SD- standard deviation

Figure 5: Average Mean Value & Standard Deviation

0-1.4- 'strongly disagree'; 1.5-2.4- 'disagree'; 2.5-3.4- 'neutral'; 3.5-4.4- 'agree'; 4.5-5- 'strongly agree'.

As elaborated in the above figure, all of the components of the base-team setup were considered to positively impact the team collaboration competencies of the students. The only aspect which the respondents were neutral about was language diversity. The reason for this was explored in the qualitative data analysis. The standard deviations were not taken into account, as from the figure 5 it can be seen that they are always equal to 1.

## 5.4. Reflections

The respondents were asked to briefly reflect on the base-team set-up and its contribution towards their competence in team dynamics, management, and leadership. The 115 answers given were analyzed, grouped, and labeled according to their content (Figure 5). This resulted in five categories (the full answer list can be found in the appendices section).

## 5.4.1. Reflections on Diversity

Many of the comments regarding diversity were related to the benefits of this experience when working in organizational teams. For example, "After graduation I started to work for an international company and realized that the base-team experience is beneficial in the multinational work environment." or "Working in a team with a diverse educational and cultural background was a valuable opportunity to practice the real-life situation. Additionally, this diversity helped the team members develop their management and leadership skills in an international work environment."

Some respondents mentioned how working with people with diverse backgrounds in base-teams helped them appreciate diversity. For example, "Trying to mix with as many diverse teams as possible forces you to manage real-life problems throughout the program. I learned that complex assignments require diverse knowledge and skills."

Yet other responses show that membership of base-teams which involved students of diverse backgrounds helped team members learn how to deal with diversity, e.g., "I believe I gained 10 years of life experience in management compressed in one year. In my opinion, being "forced" to work with diverse people with a different background is of great importance as in the working environment you will not always work with people who are similar to you. Knowing how to communicate and interact with diverse people is the key to a successful project."

### 5.4.2. Reflections on the Forced Selection Process

First of all, the respondents think of the forced selection process as a beneficial experience because of its resemblance to a real-life situation (it was the case almost in all of the responses), To exemplify, "The base-team was very relevant regarding my experience with management and leadership as in the real working life one will most likely also not be able to choose team members."

Some other participants of the survey appreciate how this experience helped them grow as a person: "It was definitely useful especially given that I had no experience in working with teams for a period longer than two months. Being "forced" to work with people that I would not have chosen to work with made me aware that I will have to deal with similar situations and, as a result, I learned how to overcome these kinds of differences."

Finally, some draw attention to how self-selected teams could fail (which has been also discussed in detail in the literature review):

"[...] If we had chosen our teammates ourselves, the teams would probably lack the degree of diversity, which turned out to be a significant factor in the development of these competencies, in my opinion."

#### 5.4.3. Reflection on Duration

The study reveals that students highly value working in a team for a long period as:

It helped a team grow together, e.g., "It was nice to have the same group all year long, and that we were not allowed to change groups. This created a strong bond and we had to work through our hardships instead of ignoring them and moving on."

Additionally, it helped them grow individually by learning how to deal with it, e.g., "It was important that we could not change base-teams and that we had to figure out how to work together"

However, being "stuck" in the same team for a year was a little bit too long for some students: "Yes, it was useful in terms of developing managerial and, to some extent, leadership skills. But the fixed structure did not allow for a lot of experience in different group set-ups, thus reinforcing potentially adverse dynamics and attitudes in the base-teams. For an individual, this could have restricted the possibilities to see whether personal reactions/capabilities change in other smaller team settings"

Overall, the students see working with the same team in the duration of a year as a positive experience, while suggesting that being involved in two base-teams over a year would be preferable as this would allow them to work with different teams.

## 5.4.4. Reflections on Workload

Students feel that the heavy workload of the program aimed to push students to realize their full potential, e.g., "I do see how that also taught me to prioritize and manage a heavy workload, which is a challenge that will certainly come up again in the near future of my professional life."

## 5.4.5. Supporting Structures

The supporting structures were highly appreciated by the survey members as exemplified by the following responses:

A: "Support structures were useful. They especially helped the teamwork in increasing pace and integration. Individually, I can say that this experience improved my management and leadership skills."

B: "Having a good tutor really made all the difference. Honestly, even when it meant that we had to look in the mirror. I learned so much about myself and about managing teams. Grateful for the experience."

The only negative comments were on the lack of supporting structures on certain occasions. In particular, students prefer to have more ToL sessions and supporting structures, which will be analyzed in detail in the next section.

## 5.5. Reflections on Missing Components of the Base-Teams

The respondents were asked to write their suggestions on how to make the base-team experience better, more relevant, and rewarding in terms of the intent. Below is given a list of the recurring suggestions. The record of all other suggestions and wishes are kept and is ready to be presented whenever is required: Students would like to have more supporting structures, especially in the team-building phase, e.g., "More time should be dedicated to the Team Building session."

The respondents mention how it was challenging for them to rotate roles and that some team members never had the opportunity to exercise team leadership/management. E.g., "assigning the role of the Team Manager each 1,5 - 2 months or so to a different team member so that all the people could take turns during the course of the program. At the end of everyone's leadership term, there could be a reflection session where all the team members would give feedback to the manager (including feedback on whether the person acted as a true leader or purely as a manager)."

Assignments- Students mentioned that having same types of assignment did not contribute to their development and they would prefer to have more real-life related assignments: "Out interactions with real-world managers in the program were overall low, and it would have been great to have a manager talk to our base-teams about management, leadership, and teams at their companies and how we can apply their lessons to our base-team."

They would like to have more interactions, as being in one base-team did not allow them to use their skills outside of the team: "It could be interesting to pair base-teams together occasionally, so one base-team can observe the other and how they collaborate. I think one could learn a lot from observing other base-teams and also giving them feedback. Being in the same base-team all the time also limits your scope."

## 5.6. Qualitative Findings

Twenty-five interviews were conducted among current graduates and alumni. Responses were made anonymous, taking into consideration the interviewees' preferences. The intended purpose of the interviews was to gather qualitative data. Qualitative data was necessary for understanding the key observations of the collected surveys and examining the reasons for having language diversity as a neutral contributor towards students' development in team dynamics, management, and leadership. Moreover, the respondents were asked to evaluate the role of experiential learning towards their learning and competency development. Lastly, the students were asked to provide their suggestions related to aspects that are not mentioned in the survey but could be part of a setup which ought to develop students' competencies.

#### 5.6.1. On Neutral Responses Regarding Language Diversity

Language diversity did not have a strong effect on the students' development as shown by the survey figures as well as the interviews. One reason is that English is the language of instruction and all the students communicated in English. This is related to the university entry requirement for English proficiency (English 6/English Course B). This was the justification of almost all respondents. They mentioned that although English proficiency levels of students vary, everybody had a minimum level of English to perform within a team.

Only Interviewee 3 mentioned that he would like the program to have interviews with potential students before admitting them. This interviewee mentioned the challenges he encountered while communicating with other students due to their insufficient knowledge of English.

One surprising aspect of the survey was how the respondents interpreted the question. All of the respondents agreed that they interpreted the question as asking about the impact of language diversity on the performance of the team, rather than their own team performance skills, which was not the purpose of the question. When the program director Stein Kleppestø was interviewed, he mentioned that the idea of base-teams was not only creating high-performing teams but also (and more importantly) creating real life-resemblance in teams in which individual students learn to develop their skills. Having language diversity within a team could create potential conflicts and lower results on a grade basis, however, it very likely teaches the students how to deal with similar situations in their future careers.

Interviewee 15 mentioned that he also gave this factor a neutral response. While this interviewee was given an explanation regarding the point of the question, he mentioned that he understood the question as asking about the different levels of proficiency in English, rather than language diversity in general. He only gave this question 3 points (neutral) because having people who speak a different language in the team was not a problem for him; the problem was a team member not possessing sufficient knowledge of English.

# 5.6.2. Students' opinions about the role of experiential learning towards their team collaboration skills' development

The results of the survey reveal that all of the respondents believe that experiential learning has a positive impact on the development of their team collaboration skills and that they see base-teams as a perfect example of experiential learning. One of the interviewees mentioned that the best side of experiential learning was that now in her work life she did not face any kind of challenge that she had not been exposed to previously. Another respondent said that, prior to the program, he lacked real-life skills because of the traditional learning style he had been exposed to. He assessed experiential learning as invaluable to the learning of team competencies. Finally, another interviewee said that he learned more in this one-year program than he had in his four years of traditional undergraduate degree owing to the experiential learning the former provides.

It is noteworthy that students also emphasized the value of traditional learning. As it is an educational setting, they would not like to be exposed only to the experiential learning method. They mentioned that the program was an ideal mix of traditional and experiential learning for them. Only Interviewee 14 mentioned that he would prefer if the traditional learning would have a connection with experiential one. The researchers found it as an interesting topic for research, which will be discussed in the "Recommendations for Future Research" section.

#### 5.6.3. Suggested elements that could be a set up to develop student's competencies

Interviewee 1 mentioned she would like to have more working-life connections. She mentioned the challenges MiM program students face regarding finding employment when they graduate and for her, it would be an ideal part of the experiential learning team setup, although she was aware of the challenges regarding organizing this.

Interviewee 2 suggested creating an online platform for base-teams in which they could raise the problems they face within their base-teams. Then the base-teams with similar problems could have a meeting during which they could discuss how they had been dealing with these problems and learn from each other's experience and help each other to mitigate these problems.

Interviewee 3 mentioned how he faced some difficulties in his base-team and how at the end of the program when they had a Project to work on, he could not contribute to the process although

he would love to. He said that when he reached that point, he already knew a lot about his strengths and weaknesses and how to perform in a team and how to present himself, however, his base-team had already formed their opinions regarding him. He, therefore, emphasized the importance of changing base-teams in January, i.e. the second semester. In this way, it would still resemble real life as each individual would only have two base-teams, but everybody would have a chance of applying what they had learned from their previous base-teams (leadership, management, and team dynamics skills) to the new one.

Interviewees 4-6 mentioned the importance of educators-program administrators assigning each team member to a specific role within the team for some period in a way that these roles could rotate, and everybody had a chance of experiencing this. Interviewee 5 said although base-teams themselves had these roles, they never followed it at least in their cases: naturally, dominant leaders were always the ones who were leading. He mentioned that due to his shy nature, he could never take leadership roles. However, if it were a requirement of the program, they would most probably be obliged to do it and would probably grow more as a leader.

Interviewee 7 mentioned how he would like to see more real-world projects, assigned by a certain company to solve the company's current issue. The program only had one live case and he did not find it enough. He mentioned that working in management consulting was a good experience where he could use the knowledge gained from the course assignments, however, he struggled to solve the problems when he first began to work in start-ups, as he believed the best way of developing team skills was to expose students to real-world situations.

Interviewee 8 and Interviewee 9 mentioned that they did not see any need for a change, as they found the setup beneficial enough as it was.

Interviewee 10 mentioned that he would like the program administrators to switch a couple of students from different base-teams for some period of time, in order to change the dynamics of the base-teams and for students to have more experience of working with different teams.

Interviewees 11 and 12 mentioned the need for a change in assignments as they were redundant sometimes. For instance, making them more real-life related problems could help the base-teams to practice more as organizational teams.

Interviewees 13 and 14 suggested having a rotation setting in teams. That means students would be able to experience working with other base-teams for a short period of time. Although this does not necessarily resemble a real-life organization, students will experience working with different individuals.

Interviewees 15 to 19 suggested having more supporting structures. This is another repeated suggestion observed frequently in the survey responses and the interviews. Students appreciated being supported by those structures. Some of them specifically mentioned ToL sessions and other tutorials while some mentioned all of them.

Interviewee 20 mentioned the importance of a tutor in a tutorial session. She mentioned how her tutor helped her team to tackle a number of challenges, while the tutors of some teams were not very helpful.

Similar to the second Interviewee, Interviewees 23rd and 24th also mentioned pairing base-teams occasionally in order to see how they can collaborate and learn from each other's experiences.

Finally, Interviewee 25 mentioned that she would like to have at least one native English speaker in each base-team which her base-teams did not have, as she thought that could help team members to develop their communication skills by taking an example.

## Chapter 6: Findings Discussion

The research questions had been turned around (descending order) to serve the purpose of the discussion:

#### 6.1. Research Question 1.2

# What potential elements are there to incorporate into an experiential learning approach that is currently being perceived as positively affecting students' skills development?

In order to find some components on which an effective experiential learning environment could be built, the MiM program was chosen as a case. The program is entirely devoted to this purpose, as a major part of the program was built upon base-teams, which purely serves to develop team dynamics, management, and leadership skills, i.e. demanded skills for team collaboration competencies of students. Having done literature review on the elements that the program has adopted and conducted a large-scale survey with the program participants, below components could be highlighted:

**Diversity:** Overall, the literature review demonstrated that team diversity has always been considered as an asset for developing both the team and the skills of individuals within the team. In their research, Syed and Tariq (2017) mentioned how learning to deal with and appreciate diversity helps shape diversity management, which is a key requirement of being a team member who uses all available talents to meet overall goals. The MiM program has adopted the logic of "maximum diversity" in order to develop team collaboration skills. Therefore, in the survey, students were specifically asked about the effect of each type of diversity on their team collaboration competencies, namely management, leadership, and team dynamics skills. All types of diversity, namely culture, age and gender, personality, educational, and work experience were accepted as beneficial, except language diversity. "As a non-native English speaker, I of course had some communication problems. But comparing how other types of diversity impacted and shaped my skills of team dynamics, managing and leading, I thought language diversity was relatively neutral, after all, we all could speak English" (Interviewee 1).

Overall students appreciated diversity as a positive contributor to their team collaboration skills for the following reasons: firstly, they learn about diverse teams, which will be a handful in the future organizational life. Secondly, working with people with diverse skills and backgrounds is beneficial for them as future managers to be able to value diversity as an asset. Thirdly, learning how to deal with diversity will be beneficial for their future career as it makes them a better team member and leader.

**Selection process:** Students highly appreciated a forced selection process in which they do not have the opportunity of choosing their teammates. None of the respondents questioned this selection process as they valued the resemblances of real-life situations, in which most of the cases they do not have the privilege of choosing their teammates. Putting students in the teams without their own approval, helps them deal with individuals who are different from them, someone who even has completely different worldview/preferences and work ethics. As they cannot choose their teammates they learn how to deal with these diverse personalities and working styles. They learn how to manage and lead the people who they do not choose and how to work with them within the team.

Overall, students appreciate the forced selection process because of the following reasons: First, it helps them deal with working in these kinds of teams, which will be the case in their future workplaces. Secondly, it helps them work on their skills in order to be a good team member, rather than escaping from the problem. And finally, self-selection could result in them having a team in which they achieve almost nothing in terms of both outcome-based and individual development.

**Duration:** Students value duration as beneficial for their team skills as well. However, although long term teams are valued, to change the teams at least once could also be beneficial. Interviewee fourth mentioned how this would help them apply the skills that had been learned from one team to the newer one and also interact with more people and have an opportunity of working with more diverse people.

One striking finding is that all alumni who are currently working mentioned how a rotating baseteam is irrelevant, as in their work-life they see the benefits of working with a team for a long time. Results drawn could be that a long duration is very beneficial for the improvement of team collaboration competencies of students, whether it lasts six months or a year. However, if the program runs more than a year, it is advised to change the teams as students had a lot of comments about this aspect of the base-teams. **Workload:** Not many comments were made on the effects of workload. The sole comments were about its distribution. Hence, the conclusion could be drawn from the results of Likert-Scale and few comments, which together prove that nonetheless, loading student teams with high workload could help them to develop their team collaboration skills by learning how to manage the process and assign roles to various members while learning how to use skill toolkit of their own.

**Supporting structures:** Overall in most of the literature reviewed, what is meant by supporting structures is the support of specifically assigned instructors. Not only students value these structures, but they would like to see it more often. Learning journal was also evaluated as a positive contributor; one of the interviewees mentioned how he was still keeping a learning journal of his development. Students also suggested creating a team journal. The study also demonstrated how the right tutor could be vital for the team and team members' development. The agreement point was that assigning appropriate tutors who are devoted to student development is also a vital element of learning. Overall, students appreciated being supported by those structures. On the other hand, one can see that there are certain restrictions to incorporate more supporting structures into the programs. Financial and time limitations, for example, would not permit the programs to apply more structures, given that they are expensive and time-consuming. Nevertheless, it would definitely have a positive impact on competency development.

**Suggested changes:** additional elements that were offered by the students could be concluded as follows:

1. Interactive teams- students appreciate having interaction between two teams occasionally, as it will help them see the struggles the other teams face and learn from each other's experiences. One very useful idea is "to make it as an online platform where teams can raise their problems and the ones with similar problems could meet and try to solve them together"

2. Role assignments- assigning the role of the team manager to different team members throughout the course of the program so that all individuals could enhance their leadership skills. It should either be done by instructors, or instructors should somehow "force" students to do it, as student teams themselves were not able to do it. This person would be responsible for the team's management in all spheres, as it is in the real work environment.

3. Real-world related assignments- the team members must work together on real-world projects from corporations, start-ups, or other organizations. It would have been great to have an expert manager to talk to teams about management, leadership, and team dynamics at their company so that students can use this knowledge to develop their team collaboration skills. Furthermore, students are concerned about the assignments not reflecting on the real-world issues, which brings us to the next research sub-question.

#### 6.2. Research Question 1.1

# How do students perceive the impact of experiential learning on the development of their skills?

One of the most interesting findings of the interviews and reflection questions was that a vast majority of respondents mentioned how the base-team experience was helpful to them in their careers. As mentioned above they prefer assignments that reflect the problems many companies face. It is logical, considering the fact that most of the students who apply for business programs strive to develop real-life skills, rather than their theoretical knowledge. In an interview with MiM program director Stein Kleppestø, he mentioned how base-team set-up is an example of experiential learning improving the team skill kits of students. The survey demonstrated that students perceive experiential learning as an irreplaceable part of their learning. The answers to the second interview question support the findings of the survey that students find the experiential learning beneficial for their individual development, as well as team collaboration skills.

#### 6.3. Research question 1

# Does the experiential learning approach support the team dynamics, management, and leadership skills of higher education students?

Laverie (2006) emphasizes the importance of team-based active learning as an approach to the effective development of team collaboration skills. This research supported this statement by showing that students developed their team dynamics, leadership, and management skills owing to team-based exercises. Furthermore, this approach helped to improve students' readiness of working in a complex business environment.

The enacted cognition principle suggests redefining management education towards learning by doing. The self-organization ability of individuals and groups determines a need to change the focus of education from school to learner-centered approach. In this perspective, the learner decides, chooses, and manages according to their learning needs. Successful corporate learning initiatives focus on developing competencies via real experiences, addressing a set of generic, organic, and changing team competencies which can be applied to the workplace, rather than through purely theoretical knowledge transfer. Scalzo and Turner (2014) found that the blend of experiential learning methods with managerial skills resulted in the provision of practical knowledge for the students which was later required in their practical lives.

This study demonstrated that the experiential learning approach does support the development of team collaboration skills of students in higher educational settings. This further introduced the question of how experiential learning could be built for better outcomes. The study showed that building teams on criteria given below are an effective way of developing desired competencies:

1. Maximum diversity

2. Long duration (maximum 2 teams for an individual during a year)

3. Guiding the teams through by supporting structures (learning journals and support sessions with highly professional experts)

4. Challenging the teams by heavy workload

5. Making these teams interactive by collaborating them with each other occasionally

6. Assigning specific roles to students and rotating these roles so that everyone has a chance of developing their leadership and management skills

7. And finally, assigning them with real-world assignments which could create more real-life related team competences.

## Chapter 7: Conclusion

#### 7.1. Case conclusion

It is empirically determined that MiM graduates believe the "base-team" setup bears considerable resemblance to the real working environment. The characteristics of the base-team setup positively contributed towards their development in team dynamics, management, and leadership, as is clear from the average mean values presented in the analysis. Furthermore, since students take the base-team to have a significant influence on their competency development, experiential learning with the specified characteristics proves to be an important method of developing team dynamics, management, and leadership competencies. Following are the key findings of the research:

**Finding 1:** Respondents believe that the program prepares them for their future work life by implementing the base-team setup which reflects real-life scenarios: they think that diversity, heavy workload, being involved in a team over a considerable period of time and being assigned to a team rather than choosing what team to join to are to be part of their future career.

**Finding 2:** Respondents believe that the base-team set-up, i.e. working in a base-team, significantly developed their management and leadership skills.

**Finding 3:** Respondents think that base-team experience helped them identify their weaknesses and strengths and that this knowledge enables them to find ways to contribute to their work teams to the best of their abilities.

According to the case study, there was not an aspect of the base-team setup that was deemed as having no benefits for students. Taking into account the literature review of the thesis, which consists of research carried out by a number of scholars, several experiments, and survey results, it can be concluded that the base-team setup could be applied in higher education settings as an experiential approach intended to develop team collaboration competencies of students.

#### 7.2. Research conclusion

This study aimed to develop an understanding of the role of experiential learning in team collaboration competencies of business students in the higher education context. The researchers

chose the base-team set up implemented in the Master's program in Management at Lund University as a case study. The reason for this choice was that base-teams purely serve the research purpose, i.e., the study of developing team dynamics, management, and leadership skills of students by experiential learning. The program director Stein Kleppestø was interviewed, and a large scale of quantitative and qualitative data were collected from current and previous students about attitudes towards experiential learning and the best components of it which were practiced and appreciated by them thus far. This shed light on how attitudes towards experiential learning in higher education settings.

While exploring the research questions it was revealed that the most beneficial aspect of experiential learning is creating an environment similar to real work contexts, which helps students in their future career. As team collaboration competencies, i.e. leading a team, being a member of a team, and managing teamwork are vital requirements of the modern business world, experiential learning is highly appreciated by students. This led to the question of how students could be equipped with these competencies. The study shows that building teams on maximum diversity for a long duration, challenging members with the heavy workload while also supporting them through these challenges, assigning roles to students, i.e. somehow "forcing" everybody to experience leadership roles, 'real-life' assignments which could equip them with more work-life related team competencies and, finally, encouraging teams to interact and learn from each other are effective ways to develop students' team collaboration competencies.

The research revealed that although building an environment in which students can grow as highly skilled team members, managers, and leaders seems like a complex equation, in the end, it comes down to several variables. Students learn best when they are exposed to set-ups resembling real-life situations, in the environment which presents every kind of challenge they are expected to face in their future career. Students should be challenged in different ways, while also being supported throughout the process.

#### 7.3. Practical Implications and Contributions

This study sheds light on the role of experiential learning in developing the team collaboration skillset of business students in higher educational settings. The study reveals practical implications of the approach in question for teaching business and management in higher education settings. It

could encourage higher education institutions to incorporate experiential learning into the programs which they offer and guide them on how to implement experiential learning. The study could also be beneficial for the case program, that is, the Lund University Management (master's) program administrators and its prospective students, as it includes statistical data collected from a large scale of current students and alumni on the effectiveness of the methods used in the program.

## 7.4. Limitations of the Research

One potential limitation is that the researchers themselves were the students of a case program, which could make the research biased in some ways. However, the research was followed by the supervisor closely. Also, the Likert-scale was used in the survey, which is thought to be one of the most accurate methods given that respondents can specify their level of agreement to a larger extent. The study focuses on three specific types of team collaboration competencies (leadership, management, and team dynamics) and as such, it was expected to be difficult for respondents to determine the effect of each component on each of these three skills. Therefore, the definitions were provided in the survey and the participants were asked to contact the researchers on occasions when they needed further clarification. Finally, as the study under discussion is a case study, it is difficult to generalize the findings. However, taking into account the heterogeneity of the case population, the literature consulted and reviewed and the use of triangulation (both quantitative and qualitative methods), which is considered to provide the most accurate analysis, the researchers hope that the research question has been discussed adequately.

#### 7.5. Proposal for Future experiments

The ideal case scenario would involve three distinct groups of students: the first group, which has only a traditional learning experience, the second group which has only an experiential learning experience, and the third group which has experienced the combination of traditional and experiential learning, such as the MiM program. This would allow us to compare the impact of the given approaches in higher education settings.

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# Appendix A: Survey Questionnaire

## **Individual Information**

- Gender:
- Base-team number:
- Graduation year:

## Team Dynamics, Management & Leadership (each one separate)

## Diversity

- On scale 1 to 5, The following aspects of diversity in the base-team positively affected my competence (knowledge, skill, mindset) in team Dynamics, management & leadership
  - cultural diversity
  - work experience & educational background diversity
  - language diversity
  - gender and age diversity
  - personality diversity

## **Selection process**

• The following aspect of the forced selection process (no leverage to choose the teammates) in the base-team positively affected my competence (knowledge, skill, mindset) in team dynamics, management, and leadership

## Duration

• On scale 1 to 5, the effect of working with the same team for the whole duration of the program positively affected my competence (knowledge, mindset, skills) in team dynamics, management, and leadership

## **Heavy Assignments:**

• On scale 1 to 5, the effect of heavy assignments positively affected my competence (knowledge, mindset, skills) in team dynamics, management, and leadership

## **Section 6: Supporting Structures**

- On scale 1 to 5, Teamwork & Leadership (ToL) sessions positively affected my competence (knowledge, mindset, skills) in Team dynamics, management, and leadership
- On scale 1 to 5, tutorial sessions positively affected my competence (knowledge, mindset, skills) in team dynamics, management, and leadership

• On scale 1 to 5, learning journals positively affected my competence (knowledge, mindset, skills) in team dynamics, management, and leadership

Reflection:

- + Briefly reflect on the base-team set-up and the contribution towards your competence in team dynamics, management & leadership (*was it relevant? Was it useful? Did you learn something new? Do you think there is better way than base-team experience? Etc.*)
- + if you were in position, what would you suggest to make the base-team experience better and more relevant & rewarding towards team dynamics, management & leadership?

\_\_\_\_\_

## Appendix B: Interview Questionnaire

Semi-structured interview questions. Allowing open-ended discussions within the concern range. Those questions allowed us to have control over the discussion with interviewees in order to drive away from the context of the interview.

- 1. How do you interpret the neutral response on language diversity, while all other elements were in agreeing range?
  - a. Do you think language negatively affected your performance? Or did language diversity had no influence on your development
- 2. How do you perceive experiential learning towards your competency development?
  - a. What Does the ratio between experiential learning and traditional learning look like?
- 3. Is there any other elements/setup that is not mentioned in the survey you would like to see?
  - a. Are there any existing elements you would like to see more/less of?

Appendix C: Survey Records

			Number / Percentage of Responses			
			Team Dynamics	Management	Leadership	
		Str.Disagree (1)	2 (1.7%)	3 (2.6%)	5 (4.3%)	
		Disagree (2)	4 (3.5%)	4 (3.5%)	5 (4.3%)	
	Cultural Diversity	Neutral (3)	19 (16.5%)	22 (19.1%)	19 (16.5%)	
	-	Agree (4)	52 (45.2%)	54 (47%)	49 (42.6%)	
		Str. Agree (5)	38 (33%)	32 (27.8%)	37 (32.2%)	
		Str. Disagree (1)	3 (2.6%)	3 (2.6%)	7 (6.1%)	
	Work Experience	Disagree (2)	5 (4.3%)	8 (7%)	9 (7.8%)	
	Č Educed Decles and	Neutral (3)	19 (16.5%)	26 (22.6%)	19 (16.5%)	
	Educational Background	Agree (4)	41 (35.7%)	32 (27.8%)	43 (37.4%)	
	Diversity	Str. Agree (5)	47 (40.9%)	46 (40%)	37 (32.2%)	
		Str. Disagree (1)	5 (4.3%)	6 (5.2%)	10 (8.7%)	
	Language Diversity	Disagree (2)	27 (23.5%)	24 (20.9%)	23 (20%)	
Diversity		Neutral (3)	37 (32.2%)	38 (33%)	38 (33%)	
		Agree (4)	23 (20%)	24 (20.9%)	24 (20.9%)	
		Str. Agree (5)	23 (20%)	23 (20%)	20 (17.4%)	
		Str. Disagree (1)	2 (1.7%)	2 (1.7%)	7 (6.1%)	
		Disagree (2)	14 (12.2%)	14 (12.2%)	11 (9.6%)	
	Gender & Age Diversity	Neutral (3)	37 (32.2%)	35 (30.4%)	38 (33%)	
		Agree (4)	42 (36.5%)	42 (36.5%)	37 (32.2%)	
		Str. Agree (5)	20 (17.4)	22 (19.1%)	22 (19.1%)	
		Str. Disagree (1)	2 (1.7%)	1 (0.9%)	2 (1.7%)	
		Disagree (2)	8 (7%)	4 (3.5%)	5 (4.3%)	
	Personality Diversity	Neutral (3)	14 (12.2%)	15 (13%)	12 (10.4%)	
		Agree (4)	33 (28.7%)	39 (33.9%)	45 (39.1%)	
		Str. Agree (5)	58 (50.4%)	56 (48.7%)	51 (44.3%)	
		Str. Disagree (1)	2 (1.7%)	1 (0.9%)	2 (1.7%)	
		Disagree (2)	7 (6.1%)	6 (5.2%)	5 (4.3%)	
Sele	ection Process	Neutral (3)	18 (15.7%)	17 (14.8%)	27 (23.5%)	
		Agree (4)	40 (34.8%)	49 (42.6%)	35 (30.4%)	
		Str. Agree (5)	48 (41.7%)	42 (36.5%)	46 (4.%)	
		Str. Disagree (1)	5 (4.3%)	4 (3.5%)	8 (7%)	
		Disagree (2)	9 (7.8%)	6 (5.2%)	6 (5.2%)	
	Duration	Neutral (3)	9 (7.8%)	12 (10.4%)	21 (18.3%)	
		Agree (4)	36 (31.3%)	51 (44.3%)	41 (35.7%)	
		Str. Agree (5)	56 (48.7%)	42 (36.5%)	39 (33.9%)	
		Str. Disagree (1)	1 (0.9%)	1 (0.9%)	3 (2.6%)	
	teamwork & Leadership	Disagree (2)	6 (5.2%)	6 (5.2%)	8 (7%)	
	Sessions	Neutral (3)	25 (21.7%)	28 (24.3%)	26 (22.6%)	
		Agree (4)	40 (34.8%)	46 (40%)	46 (40%)	
		Str. Agree (5)	43 (37.4%)	34 (29.6%)	32 (27.8%)	
		Str. Disagree (1)	4 (3.5%)	4 (3.5%)	6 (5.2%)	
Supporting	· · · ·	Disagree (2)	21 (18.3%)	27 (23.5%)	26 (22.6%)	
Structures	Learning Journals	Neutral (3)	24 (20.9%)	24 (20.9%)	23 (20%)	
		Agree (4)	34 (29.6%)	27 (23.5%)	27 (23.5%)	
		Str. Agree (5)	32 (27.8%)	33 (28.7%)	33 (28.7%)	
	tutorial Sessions	Str. Disagree (1)	0 (0%)	0 (0%)	2(1.7%)	
		Disagree (2)	8 (7%)	8 (7%)	15 (13%)	
		Neutral (3)	25 (21.7%)	27 (23.5%)	36 (31.1%)	
		Agree (4)	32 (27.8%) 50 (42.5%)	35 (30.4%)	20 (22.6%)	
		Str. Agree (5)	50 (43.5%)	45 (39.1%)	30(31.1%)	
		Str. Disagree (1)	4 (3.5%)	1 (0.9%)	2(1./%)	
Workload		Disagree (2)	13(11.3%)	<u>δ(/%)</u>	/ (0.1%)	
		A cross (4)	24(20.9%)	23(20%)	30(20.1%)	
		Agree (4)	47 (42.0%)	31(44.3%) 32(27.9%)	(42.0%)	
		Str. Agree (5)	23 (21.7%)	32 (27.8%)	21 (23.3%)	