THE EXTENT OF WHICH CASES ARE USED IN TEACHING

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Abstract

Teaching with case studies has expanded extensively, and it is shown that this methodology is a very good manner for the learner to maintain the given knowledge, but also challenge themselves in more than one way. Teaching with cases opens up the walls of curiosity of decision making, problem solving, discussions and more. The case methodology is rich in detail which let the apprentices learn not only theoretical concepts, but practical concepts in different case situations.

Introduction

Using cases in the teaching process gives the ability to understand different situations in different manners. For instance, cases are used as presentations, discussions, debates etcetera. The instructor usually holds a seminar when they lectures with the help of cases. Case studies can be defined as “a description of a real or simulated managerial situation along with personal history of an individual, institution, or business faced with a problem that must be solved” (Gerring, 2004, s. 5). Also cases and the case methodology gives a better understanding of the teaching (Merseth, 1996). Teaching with cases can be either written, oral or in an audio-visual form, that are being analyzed by the instructor and the learners as they ultimately present a conclusion (Lundgren, 2013). Such cases can also explicit in terms of solving a problem in any common form, that way the participants get immediate feedback from each other and the instructor (Lundgren, 2013).

In scandinavian countries, the case methodology which let the learners create, not only import case studies, is still missing in educational purposes (Søilen & Huber, 2006). Thus, today’s researchers and academics are in a working process of writing new case studies because of high demand of cases that produce educational products i.e. teaching materials (Søilen & Huber, 2006). Teaching with vignettes, scientific stories and historical case studies, are very common at an early age and a common form of scientific stories are life stories (Søilen & Huber, 2006). Life stories defines the background of a study or a subject instead of going directly to the relatively theory, which in turn creates
curiosity and faster learning (Søilen & Huber, 2006). The case methodology prepares everyone involved in the teaching, a professional future with the ability of making decisions and solving problems.

**Method**

This study will show how cases are used in lectures for obtaining a better understanding of the benefits and the extent of such lectures. The study is based on qualitative information through scientific papers and case studies. Since teaching is a human activity, it is easier to understand the topic through qualitative research (Mavhunga & Rollnick, 2015). The assignment is based on secondary sources, therefore it is based on scientific articles and case studies. The articles and the cases are being compared, not only for its content, but for the differences among the authors findings. The scientific papers are used for describing the empirical evidence with the help of examples from different case studies and also for understanding the usefulness of teaching with cases.

**Empirical evidence**

In 1870 the Harvard Law School began teaching with cases of Dean Christopher Columbus as their guide (Merseth, 1996). Cases were individually analysed and discussed by students, and by 1915, the case methodology arose in many law schools which made the case methodology in legal law education, later on it spread to medicine and business too (Merseth, 1996).

Merseth (1996) explaines that cases affects teaching in a manner that gives the learners an opportunity to solve problems and to educate them in analysis skills, but also teach them how to make decisions, in the classroom. When students teach themselves getting through a problem, would be the best way for them to learn, but also not only focusing on the theoretical part but the practical part which can be crucial for their understanding (Vople, 2015). Merseth (1996) argues that the main reason of cases is the self-analysis and personal reflection, even though some use cases to transform theory to practice. Teaching with cases is being proposed as a professional field, for instance in business, those who have had previous experience will be better affected by the case methodology (Merseth, 1996). To exemplify this; the student get a subject about eating-disorder where they get a case which involves solving a problem in teams, design an evidence-based campaign, being ethical but also involve multiple concerns (Austin & Sonneville, 2013). Their assignment is to identify the bias and make research, but also decision-making, to evident the collected information (Austin & Sonneville, 2013).

Teaching cases should be followed by a replication analytic design when being
used in natural science or humanities, and an individual case means an independent experiment while multiple cases allows comparison of the identifications (Ambrosini, Bowman & Collier, 2010).

Merseth (1996) states that when cases are used in teaching the first approach is to review important data and answer study questions given by the instructor. Continuously, the work process can either be individually or in smaller groups to share insights and opinions, and then meet at the seminar with every class member, to discuss the case subject. At the seminar, the leader guides and gives direct feedback, but also observes the interactions between the students (Merseth, 1996). Cases engage the apprentice in a manner where they apply theory to practice, and are used by nursing, law, business, social science, etcetera (Popil, 2010). This exemplifies with the case about MSA Sordin AB, who want to increase the work competencies which means further education (Søilen & Huber, 2006). They were educated by teknIQ who had offered to help the company. The process consisted of lectures both theoretical and practical parts (Søilen & Huber, 2006). The company focused on further educations to keep high competencies standards (Søilen & Huber, 2006).

Three other cases when the instructors use discussions and seminars:

1. Berglunds Mekaniska AB has a manager who wants to involve the employees more by common breaks and call moments, not only for them to feel involved in the changing process, but to share their knowledge among each other. It was also suggested to have a staff binder where they can note comments that later will be discussed. The manager kept in mind for the need of further education (Søilen & Huber, 2006).

2. TOMVA AB restructured two times. Their change was mainly for emphasizing personal development among staff. Another important point is the share of knowledge. They also consider to further educate the employees through seminars or workshops (Søilen & Huber, 2006).

3. Rock City AB developed their company that led to the enforcement of education and offering courses to other high schools. They also held in seminars and conferences, and as important as they are they still keep the traditional “teacher-student-hierarchy” in mind (Søilen & Huber, 2006).

Lundgren (2013) says that teaching with cases gives a better understanding of the reality and how it is used in different situations. Continuously, the learner is the main focus, because this method activates the learners to work outside the box and helps them develop in oral and written skills in an analytical manner. Since the case studies does not have one correct solution, it encourages the apprentice to seek for different alternative solutions (Lundgren,
The author explains the possibility to teach with living cases, which means that the apprentice produces the case based on secondary resources, such as annual reports and home pages. A case example is about learning history by cases as they contribute to the present and the understanding of history (Williamson-Lott & Baedi, 2016). Teaching with case studies would give a better understanding for the learners by actually doing the assignment, not only in written form, and to transfer the theory to practice for a better understanding and for a longer memory sustainability (Williamson-Lott & Baedi, 2016). The given assignments ended with seminars for the final result (Williamson-Lott & Baedi, 2016).

Gerring (2004) states that cases can be defined as intensive and introducing, and distinguishing them as formal and informal units can make it easier to understand them. A formal unit can be described as an analysis of a person, group, etcetera, as the informal units do analysis in a peripheral way (Gerring, 2004). Healy and McCutcheon (2010) narrate that cases can be used as a teaching method and is different from the traditional teaching method. Accounting education, for instance, has found use of the case method, and to some extent, it is vital of how they teach with case studies (McCutcheon, 2010). Furthermore, teaching with cases in accounting education, has not been extensive and therefore the teachers are inexperienced in lecturing in that environment, because it claims that the potential of using case methods implicates to have positive impacts (McCutcheon, 2010).

For instance, in the following case examples they teach with models. The first company, Mercatus Engineering AB, chose to restructure the organization, doing that by education (Søilen & Huber, 2006). The process began with a development program starting with theoretical sections that were followed by discussions about core values and vision issues. Including exercises in relaxation and stress management. This process was based on the FIRO-model, containing three phases. The first phase explains the belonging i.e. where the employees find themselves within the group. The second phase speaks for the need of taking control or another roll, and the final phase is the affinity i.e. how you work as a group. This reorganization gave their company a better internal balance (Søilen & Huber, 2006). The other case tells about Bräcke Trähuskomponenter AB, who sees its employees as their most important resource, therefore they wanted to involve them in the company’s common goals (Søilen & Huber, 2006). They used the PUFF-model for visualization of how the improvement and results will look like. This also included cooperative participation and meetings. Another main principle was the importance to promote their independence. The process began with an education about the PUFF-model, which is then followed up by what measures they reach (Søilen & Huber, 2006).
Putnam and Borko (2013) recites that learning experience in primary or secondary education has been provided by teaching with cases, which could be discussing ideas to engage the apprentice in activity. The setting experience gives reflection and critical analysis, and cases also have some advantages than other activities that are used in teaching (Putnam & Borko, 2013). When this method is used in teaching, the instructor gives immediate feedback to the pupils (Putnam & Borko, 2013). Popil (2010) says that critical thinking are being developed in clinical setting which means with the consideration of the outcome, they learn and experience real life data analysis. In clinical settings they usually teach with case presentations where they get to reflect on what has been asked and performed, as it gives the result of a deeper learning (Onishi, 2008).

Tärnvik (2004) states that the main principle is what the methodology gives such as get students to speak, stimulate their interest through to reality and increase the problem solving proportion. The author also says that when teaching with cases, it is supportive for the teacher, as he or she takes notes for each case, which could be more extensive than the actual story. Another case methodology in teaching is using scientific papers since they are safe and convenient, and the working processes consists of the critical evaluation and research results (Tärnvik, 2004).

Waltergruppens skolor AB is an example of a problem-solving case. It is about a man who wanted to start a private school (Søilen & Huber 2006). He saw the students as customers and the courses as products. They considered a restructuring after the so called High Performance Programming-model which included four steps; first step is the reactive phase, the second step is the responsive phase, the third is the proactive phase and the fourth step is the high performance phase. The first and second phase means that the instructor sets up orders and sees how the employees responds. They wanted to reach the third phase where the leader is responsible for the common planning and the co-workers to begin to take responsible for their actions (Søilen & Huber, 2006).

Case discussion is the optimum choice according to Merseth (1996), because the participants engage in other ways than reading alone, that way they construct ideas and reflect about their own teaching. For example, case discussions can be in narrative, hypermedia or in an electronic form, which offers the teacher model collective researching for their students (Merseth, 1996). A case illustration is about how they used the audio-visual form in their seminar, when they made a presentation of a 10-minute video film (Spitzer, 2013). They see it as an emphasizing manner to deal with conflicts by using
the case method in their teaching (Spitzer, 2013). Svenska Magnet Fabrik AB is another case which agree that discussions should be included (Søilen & Huber, 2006). The company wanted to develop, therefore a development program was considered. It started up with courses followed by discussions, and after that they got critique from the instructor, which later on led to the finishing result (Søilen & Huber, 2006).

According to Burko (2015), using cases as a teaching method in natural science is different from business or law cases, because there is only one right answer in natural science. Burko (2015) also tells that when the science is correct, the knowledge will be told by short story cases, but there is also a variant where the knowledge could be correct or incorrect science as the apprentices gets to identify the differences. For instance, Plato in the astrobiology science, used cases when stating Atlantis (Burko 2015). Using quantitative reasoning in case studies is very common, for example, when apprentices gets a question and transfers their learning between two different subjects (Burko 2015).

Handelsman, Ebert-May, Beichner, Bruns, Chang, DeHaan, Gentile, Lauffer, Stewart, Tilghman, & Wood (2004) mentions that the use of cases in teaching is similar to scientific teaching since both engage the learner in a process where the methods are systematically being tested. A case illustration is about case studies that were used in teaching to find differences between two constructs in chemical equilibrium (Mavhunga & Rollnick, 2015). The benefit of using cases was that they got to discuss during the process through components that were used, starting with a traditional lecture discussion of the knowledge of these components followed by examples, and finishing with pre-service teaching by illustrating the results from their knowledge about the components (Mavhunga & Rollnick, 2015). They also audio-recorded during class (Mavhunga & Rollnick, 2015).

As described by Strach and Everett (2008), the case method either brings the problem to the learner or let the learner bring the problem, most commonly in advanced courses, and make them ask what they would have done in the current situation. Furthermore, it has been shown that giving the instructions through case methods, conducts to easier solving the problem (Strach & Everett, 2008). Quality teaching case studies gives authenticity, but it demands a long process, which means it gives believability and plausibility (Strach & Everett, 2008).

Swanson and Morrison (2009) emphasized that cases tells stories therefore they are useful in an historical narrative in teaching, which means teaching about historical things that have happened. In Helsinki School of Economics
they used the case method in their teaching, for example in decision-making, in events, in return of payoffs, etcetera (Swanson, & Morrison, 2009). A case example of this is about decision-making regarding the salary in India and how it is divided between different performance among staff. The case also gives the apprentices an insight of cultural differences. The main principle is to show them the confusing process of decision-making that later on was followed up with discussions. (Kumar & Vakkayil, 2012).

Lecture case methods occurs for not being satisfying because the class still remains as a lecture, which means that what has been taught will not stay in the apprentices minds (Herreid, 2011). According to Herreid (2011), clicker cases is predicted as a better way because it includes a PowerPoint presentation where the apprentices gets to answer the questions by clicking their answer. Another method is the discussion case method, which do not involve lecturing and limits the participants in a discussion with the teacher (Popil, 2010). Furthermore, the optimal method is the small-group case approach, because the interaction between the participants will be higher, especially when the teaching is among the apprentices (Popil, 2010). Then there is the problem-based learning (PBL), team learning and others, but these two attempts to capture the participants working strength by cooperating in permanent groups (Popil, 2010).

Bonny (2015) conducts a study whether case studies was more effective in learning gains, learning from a textbook or learning from class discussions, where the results showed that most of the participants thought that using cases was better than the other options. Furthermore, teaching with cases increases the apprentices performance on examination questions (Bonny, 2015).

**Analysis**

Teaching with cases gives both the apprentice and the teacher or instructor, a better understanding of the subject way better than the usual lecture teaching. This way they can solve problems and build up their analysis skills, not only in theory but in practice too. Merseth (1996), Tärnvik (2004) and Vople (2015) agrees that solving problems would be easier through this method. This is followed by a case example that tells how a company need to go through phases to solve their problem. Strach and Everett (2008), also agree about the problem solving process and how it is facilitated through case teaching. Another main part is the case discussion, but also the use of seminars, which the writers mostly agree on among each other. Case discussions let the students converse with one another, but also with the instructor, at the seminar. That way they exchange thoughts and opinions, such as giving them a better understanding. Also when reconstructing a company or making another
change, discussions and seminars are methods that they use. Merseth (1996) considers that the case discussion is the optimum choice, because it encourage the surrounding and not only the one individual.

Differences between using the case methodology in natural science, business- or law educations is that the natural science does only have one right answer, except in short story cases. Using cases in teaching in science is not rare, because scientific teaching is similar to the case teaching since both put the learner in a process where they tests the methods. Since cases tells stories they are useful in many teaching processes, for instance the historical narrative, where taking decisions is a option. This activates the commitment of the apprentices, as they learn how confusing decision-making is. Problem-solving and decision-making can be linked together since making decisions could be a solution for the current problem.

Most authors subscribes to the notion that teaching with case studies is a better method than the traditional lecturing. Herreid (2011) on the other hand does not agree with lecturing with case methods, because it is almost equal to the traditional lecturing. The case example about Rock City AB, still sees the teacher-student-hierarchy as a natural teaching that should not be completely avoidable. Using cases in teaching also broadens the learners knowledge, because they have been put into situations where they get to do comparisons, and that way the knowledge will remain. Furthermore, the case methodology gives the learners an opportunity to teach each other as it will increase the participation but also the enlargement of knowledge, decision-making and problem-solving. Two case examples presents the alternative to record the teaching, either as a video or an audio recording.

Case teaching in presentation gives the apprentices a better understanding, because they are being involved in the teaching process. Putnam and Borko (2000) and Popil (2010) deems that critical thinking in teaching, gives learners the chance to reflect which enlarges the commitment of their act and their knowledge will remain. Using critical thinking will facilitate the case problem, as problem-solving is a large part of the learning experience.

**Conclusion**

To summarize, it is normal to use cases in teaching. Teaching with cases facilitates the learning, such as using different methods and manners that will provide variation for the apprentices. The teaching comes in the form of lectures, discussions, seminars, but also exercises that puts the apprentices into situations where they must learn to make decisions and solve problems. At the same time, it is also important to weave in theoretical as practical aspects when
teaching with cases. Case studies are used not, only in natural science, but in business- and law teaching. Using the case methodology will help students to develop critical thinking skills and self-analysis skills, but also personal reflections, that later on can be put into practice. With a closing sentence, teaching with cases will definitely increase the participants’ knowledge.

Further studies

The Scandinavian countries have not yet started teaching with case studies. This would be interesting to do further research on, to see what results it would bring in Scandinavia and if it matches the previous research in other countries.

References


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