

Academic Development Through Course Enhancements: Becoming Reflective Practitioners

Ole Jørgen Ranglund, Hanne Haave and Tone Vold

Inland Norway University of Applied Sciences, Rena, Norway

Ole.ranglund@inn.no

Hanne.haave@inn.no

Tone.vold@inn.no

Abstract: Working in Communities of Practice (CoP) when developing student support in courses, may also have an impact on the academic learning. In CoP's scholars can meet up to discuss, solve issues and develop new solutions. It is an arena for reflection on action, retrospective reflection and for meta-learning. In this paper we will present how two lecturers have co-developed knowledge through knowledge sharing, discussions and projects with students. The two lecturers have different background regarding education teaches within the same main area; organizational theory and development, and Knowledge Management. By sharing tacit and explicit knowledge when co-developing support for students learning, their own reflections support our learning process. Through reflection before action when developing the initiatives that we want to test out on students, reflecting in action when we deploy the initiatives, reflect on action when we evaluate the initiatives and reflect retrospectively together longer after deploying the initiative, we learn and develop not only as academics but also as reflective practitioners. This is also what we want for our students. Through several years we have developed the courses in the study programme of Knowledge Management at the Inland Norway University of Applied Sciences, Norway. The development has exclusively been to support students learning outcome and work relevance of the different courses. The latest initiative is about video-feedback and how this can support the students enhanced learning outcome. We are investigating what the students claim will provide them with yet another tool for learning and that will improve their academic skills. Through the process of working with this project and utilizing our knowledge of the different ways of reflection, knowledge sharing, cooperation and collaboration, we have learned from the project and our process. Hence, our meta-learning may also benefit our students as we as reflective practitioners can help our students become reflective practitioners, too.

Keywords: Reflective practitioner, Knowledge sharing, SECI-model, Meta-learning, Situated learning

1. Introduction

Organizations are affected by a number of different issues, both internal and external. An important feature of development is that many organizations to a larger extent need to relate and adapt to demands and expectations from their surroundings and respond to them. There are for example several ways of providing products to a market. From providing a finished product to the market production has sometimes adapted to the markets by inviting the public to co-produce products. It is not uncommon to work in ecosystems developing services and products without knowing the full extent of what the economic benefits will be. There are different ways to stay relevant in a market, but many organizations use experimenting and learning as a way of adaption which presupposes the organization to be structured regarding capturing and utilize the knowledge acquired. Academic organizations need to work systematically and targeted building internal competencies, which may require an internal process of awareness over time regarding being in tune with the requirements from the surroundings rather than jumping on passing fads.

In order to stay relevant, on top of the competition and up to date one needs to develop the product to meet the market. Our business is academia and our products are our courses and study programmes. We thus need to be up to date regarding supporting the students learning outcome. This means that we need to be agile about every feature of the education. The curriculum has to be up to date, the way it is being taught needs to be accordingly, and the assignments and exams even need to be supporting the students learning process. Having already supplied the curriculum, utilized student active learning methods, such as "flipped classroom", and student involvement in the development of assignments and exams, the "only" piece left was the feedback on the assignments.

From previous investigations we knew that students appreciate feedback and supervision (Haave, Hole and Vold, 2016) Since the Knowledge Management (KM) study programme does not have a separate major assignment (like a bachelor thesis or similar) the feedback must be on the assignments provided during the courses. Hence, this was what we embarked on; providing the students with video feedback in order to make the feedback personal and as a support for the further learning process.

The way to do this was also to develop ourselves as academics and academic practitioners. We needed to utilize Knowledge Management theories in order to develop and adapt.

We are three authors to this paper, where two of us are also the informants and lecturers in the different courses. Hence, we are doing research in our own organization and on our own work practices.

Our research question would thus be:

How can we utilize the meta-learning from the research to become better practitioners?

In order to aid this process, we needed some sub-questions to operationalize our quest to become reflective practitioners. The first sub-question would be:

What KM theories will be important for our development?

The second sub-question should be concerning how this could be developed into a model for meta-learning in order to secure that even future research on future developments can be managed:

- How to develop a model for meta-learning from developments and adherent research?

The reason why we highlight this as a topic, is that very little time is allocated for reflective work amongst lecturers at our university, just as it is often little or no time for reflections for learning in organizations in general (Raelin, 2002). Here we show the development undertaken as a result of a reflective process.

In the following we will present the case in more detail before we suggest the theoretical foundation that will enlighten our study. We will then discuss the methodological choices and challenges before we discuss our findings and conclude.

1.1 The Case

The study programme in question is the Knowledge Management Study programme consisting of four courses; two in the autumn and two in the spring.

Table 1: Overview of Courses in the Knowledge Management Study Programme

Autumn	Spring
Learning Organizations 7,5 ECTS	Knowledge Management 7,5 ECTS
Service Management 7,5 ECTS	Quality Management 7,5 ECTS

The development has always been on staying relevant regarding the curriculum, as well as continuously developing student active methods. The latest development through the last two semesters have been to refine how the students themselves are enabled to develop assignments and video recorded feedback on these assignments in order to enhance the learning outcome.

In the autumn the research amongst the students were about facilitating for their improved understanding of the curriculum for supporting their skills regarding transforming their knowledge into assignments, and also to provide the students video feedback on their assignments in the Learning Organization course, and “ordinary” written feedback in the Service Management course.

Learning more about the facilitation process and how to provide better video feedback, was taken a step further for the Knowledge Management course. The research is still ongoing, as is the meta-learning from the case.

2. Theoretical Foundation

First of all, we need to explore how to become reflective practitioners. Donald Schön explained about how to utilize reflection for learning purposes (Schön, 1984, 1987). It is about gaining new insights of not only practices but also oneself through and by experiencing. Reflection is central in Schön’s works. He strongly promotes to reflect “in action” and “on action”. Reflection in action is about reflecting as one is actively experimenting. Reflection on action is about reflecting retrospectively on an action in order to learn from the situation and to see what could be changed for future situations (Boud, Keogh and Walker, 2013). Much similar to the military’s “hot washup” or After Action Review (Morrison and Meliza, 1999; Keiser and Arthur Jr, 2021), it is about evaluating and learning from the experience. Often in organizations, one does not take the time to reflect (Raelin, 2002). Hence, some opportunities of learning from experiencing are lost.

Since we are “learning by doing” and learning by experiencing, we also need to turn to the experiential learning theorist that was heavily influenced by the American pragmatist John Dewey; David A. Kolb. Kolb (2014) proposed the experiential learning cycle where one have an concrete experience that one reflects upon, then draw the perceptions into abstract concepts of the experience and feeds preparing new active experimentation. This cyclic way of learning from experiencing supports a constructivist learning approach.

Working together with a common interest may also resemble working as a Community of Practice (Lave and Wenger, 1991). Being able to draw on each other’s experiences and knowledge as well as practicing situated learning provide the learners (here: the lecturers) with a knowledge sharing opportunity. Reflecting in and on action when working on facilitating for the students to understand not only the curriculum, but also be able to utilize the curriculum to develop assignments, either made up or from their own organizations, is important for our learning process so that we are able to improve our efforts. The reflections we do as a CoP provide us with a broader perspective than if we were to reflect on our own. The most important regarding CoP’s are the relations that may be considered the “glue” combining the people. A CoP require a psychological safety (Edmondson, 2019) to ensure that the issues addressed are important to solve. Regarding teams it is easier to talk about issues that one agree on (Hjertø, 2013), but to obtain progression one have to address issues that are challenging, but then it is important that there is a culture that support this. In a CoP it is important to promote engagement that foster learning and provide for incrementalism. Guidance, dialogue and compromises are important for work in CoP’s, which in turn require a culture based on psychological safety and that contribute towards more underlying and challenging aspects are brought forward in the CoP’s.

Having been lecturers for nearly two decades, there are things that we do that would be categorized as *tacit knowledge*. In order to share this knowledge, the SECI-model (Nonaka, 1994; Nonaka and Takeuchi, 1995) may prove useful. The SECI-model was first described by Nonaka (1994) and put to a greater organizational use by Nonaka and Takeuchi in their seminal work “The Knowledge-Creating Company” (Nonaka and Takeuchi, 1995). Tacit knowledge as described by Polanyi (2009) is knowledge that is not possible to verbalize as it is generally knowledge that you develop by experiencing. However, Nonaka and Takeuchi suggested a model that transforms tacit knowledge to explicit knowledge through socialization and externalization. By socializing with others, it is possible to externalize the knowledge and thus transfer it to others who have to combine the knowledge with their previous knowledge. Then this knowledge needs to be “practiced” in order for it to be internalized and thus become the tacit knowledge of the receiver of the knowledge.

There are several approaches regarding learning organizations. One of the features of a learning organization is that they share knowledge (Filstad, 2007; Senge, 2014). The SECI-model describes how one can share tacit knowledge in organizations (Nonaka, 1994; Nonaka and Takeuchi, 1995). In short it describes how tacit knowledge can develop and be shared in the workplace through four phases and the process is circular rather than linear.

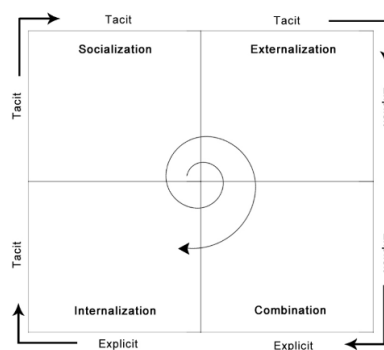


Figure 1: The SECI-Model (Nonaka&Takeuchi, 1995)

Regarding socialization, it is possible to learn via other ways than language alone. For example, one may look and learn, and even imitate what others do. Socialization is also when one work together and share each other’s experiences. Apprenticeship is an example of master and apprentice working together learning by observation and practicing what is observed.

Externalizing is about verbalizing the tacit knowledge, and about telling stories to new and other workers. Explicit knowledge will however never bring out all the aspects of tacit knowledge.

Combination is about combining explicit knowledge with new explicit knowledge. For example, one may have learned about how to organize routine descriptions in order to develop this in one's own organization, or one may have learned about how to perform certain services, but different situations require different handling.

Internalization is about transforming explicit to tacit knowledge and becomes an integral part of the individual's knowledge repository.

Preferably, it is to be a continuous process in the organization (Sarpong, Maclean and Alexander, 2013). The micro politics in the organization together with the culture and the mindset of the organization are important features regarding becoming a learning organization.

Bloom's taxonomy has been used to assess students learning (Eber and Parker, 2007). The taxonomy has been developed from the original *knowledge, comprehension, application, analysis, synthesis and evaluation* and describe how this step by step increases from knowledge to higher order learning. Knowledge being the basis for the learning is increasingly important in the age of digital technology as we have "everything" at hand and only a google search away. However, without remembering the knowledge, the rest of the pyramid "collapses" as it is important that the students have obtained the basic knowledge.

Agarwal (2019) discusses how far one can move the students up in the pyramid. Agarwal also points out that learning isolated facts is not enough to create an understanding, but facts and higher order questions better support the students way up the pyramid (Agarwal, 2019). Agarwal has tested different types of quizzes, but drawing on these experiences, the facilitation may thus be both knowledge based and supported with higher order questions in order to push the students into higher order learning.

Adams (2015) point out that the change in the original taxonomy adds a "new dimension across all six cognitive processes" (p. 153). Adams claim that there are four types of knowledge that may be encompassed by the learning activities: *factual, conceptual, procedural and metacognitive* (Adams, 2015, p. 153). Also, she claims that it is important that students are able to execute "critical thinking and evaluative judgements" and it seems that learning objectives are at a lower level (Adams, 2015, p. 153).

3. Methodology

In this paper we have utilized our own experiences, hence we are our own respondents and has thus performed an autoethnographic study (Chang, 2016). We have all told our own stories and collected and compared the outcomes and learning. Our aim is to learn from our experiences and develop as practitioners.

Also, our experiences are from our own organization (Coghlan, 2019). We thus need to be aware of our own biases and prior experiences and how this will affect our interpretations. As we are three researchers, we have sought also to discuss our findings from different viewpoints to avoid making our own social construction of reality (Berger and Luckmann, 1966).

Based on findings from investigations amongst the students and our observations in the classroom we reflected together after each seminar as well as interviewing the students and using surveys to understand how the students perceived our approaches. This mixed methods approach (Tashakkori and Creswell, 2007; Creswell and Creswell, 2017) is not described in further detail here as it is our process as researchers that is presented in this paper.

Our observations are though, that the students need to learn the theory in order to understand it and reflect upon it tying it to their own work experiences. Then they are also able to solve assignments. Then next step is to combine the knowledge it to their own work life experiences and based on this, co-develop assignments that resonate with their needs for relevance. This co-development and solving of assignments may then in turn form a "test bed" for how they can apply the new knowledge at their workplace.

Based on our observations and our own reflections, we are then able to develop our own understanding and learning process through testing and reflective discussions.

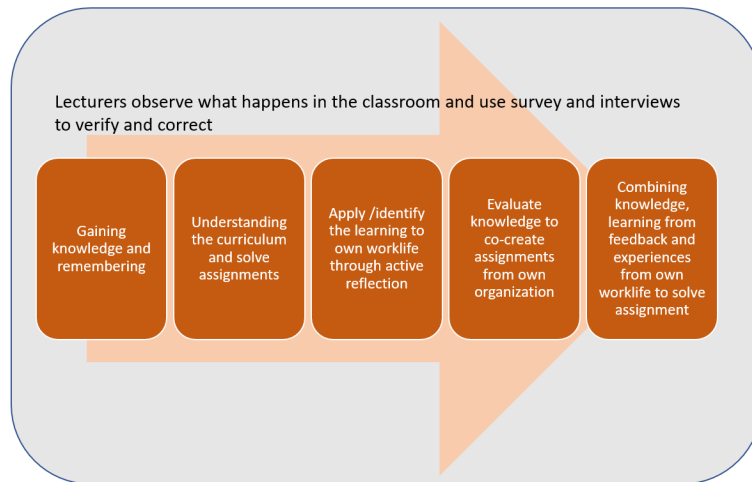


Figure 2: Data-Collection on Student's Feedback

3.1 Developing the Process

Taking Bloom’s taxonomy as a point of departure, we can describe our way to becoming reflective practitioners. We firstly had to recognize that in order to develop skills for “translating” curriculum into assignments the students also needed to know the curriculum well enough to not only remember, but also understand and apply the knowledge. Which is basically a level one may expect from a lecturer that teaches a new curriculum for the first time. This means that we as lecturer facilitating for this need to be at a higher level, indeed we need to not only be able to analyse, but also evaluate the students’ ideas and co-create the assignments with them. Hence, we needed also to read up on what video feedback was and potential benefits. The facilitation of co-developing assignments starts in the autumn semester, but it takes time to make the students understand the importance and benefit of developing their own assignments as well as developing their skills and abilities to co-create assignments. We needed to test how video feedback could support developing these skills and we thus applied this in the autumn semester, investigated how the students perceived it and how they felt it added to their learning outcome. This information was analysed, along with the reflections we had conducted prior to and during the recording. The outcome of this, along with more literature on video feedback, we ploughed into developing new experiences. Again reflecting, before and during the refined ways of providing the video feedback gave us more material for evaluating the value of this for any potential enhanced learning outcome. This again was investigated to see how the students perceived this refined video feedback and how well they were able to transform the feedback into further developed skills for co-creating assignments from their own workplaces. Our development and meta-learning can be summed up in the following figure (figure 3):

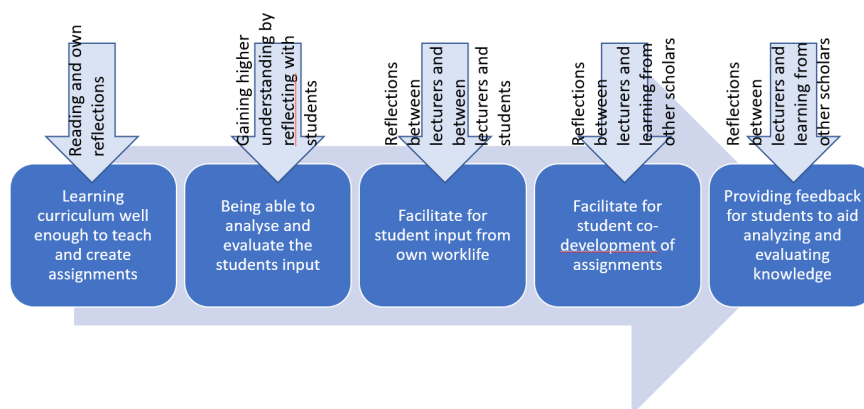


Figure 3: Teacher's Reflections Feeding Development of Course and own Development

Here we show how we have used reflection processes to form the development process to enhance the learning for the students.

4. Findings and Discussion

By Socializing and Externalizing our findings we have been able to combine what we have learned and by working with it we Internalize the knowledge. In some ways we work as a team where we are equal members and learn from each other, much like what Senge describes (Senge, 2006). Other times we are more a CoP where one of us have deeper knowledge, and maybe even more tacit knowledge than the other and share with the group. Even when we recognize using the SECI-model we resemble a CoP rather than a team as we have different backgrounds and different approaches to lecturing.

We have through several years developed the study program and have almost rigorously followed Kolb's experiential learning cycle (Kolb, 2014). By reflecting in and on action and reflecting together not only as in "after action review" (Morrison and Meliza, 1999; Keiser and Arthur Jr, 2021), but also retrospective reflection (Schön, 1984, 1987). These reflections have made it possible to achieve the level of competence we have needed in order to bring the students to a higher level of learning. By offering different types of learning material, stressing that the basic knowledge is important and following up with higher order questions to trigger and develop their skills of combining and applying their knowledge and even analyse and evaluate on the basis of their video feedback how to better master not only to create their assignments, but to solve them in a way that allows them to analyse and evaluate as well.

The process can be described as a step-stone trajectory that even the students have to follow, only a step behind:

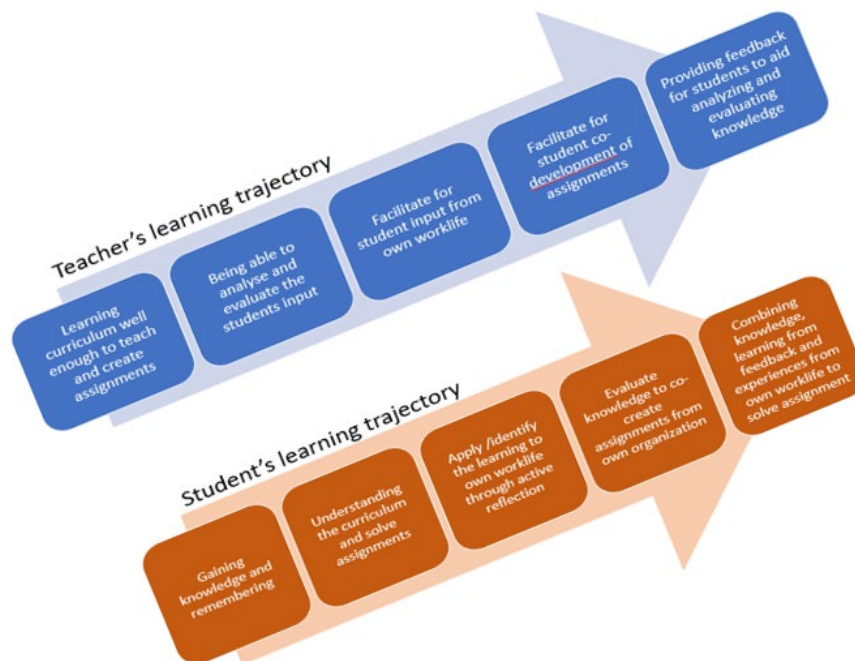


Figure 4: Teacher's and Student's Learning Trajectories to Become Reflective Practitioners

The trajectories show how the lecturers/teachers can facilitate for higher learning and for students to become reflective practitioners. It is, however, imperative that the lecturers/teachers themselves are able to become, and develop, as reflective practitioners in order to be able to facilitate for the students learning.

What we have not been able to do, is to follow our students back into their organizations to see if they were then able to combine the learning with what they encounter in their workday. We can, however, establish that they are able to co-develop assignments and they show high level of critical thinking and understanding in their submissions.

5. Conclusion

In this paper, we have elaborated on using KM theories to develop both lecturers and students as reflective practitioners in order to facilitate for higher learning in an academic setting. In order to co-develop assignments with students, it is important to have gained a higher level of learning and an understanding of the curriculum to be able to evaluate, correct and comment on the students input to their assignments. This is equally important

in order to be able to provide the students with feedback on their assignments that will further the ambition of promoting and achieving higher learning. This requires becoming reflective practitioners as this is about a development as a lecturer from understanding the curriculum to being able to co-create assignments with students and providing feedback on a higher level.

5.1 Future Research

We are in the process of investigating how our students are able to utilize their knowledge back in their organizations. We will seek to establish if it is possible to tie any utilization to the facilitation provided during their study, such as co-developing assignments and video feedback. This will aid us in the future process of developing the study, and us as reflective practitioners.

References

- Adams, N. E. (2015) 'Bloom's taxonomy of cognitive learning objectives', *J Med Libr Assoc*, 103(3), pp. 152–153. doi: 10.3163/1536-5050.103.3.010.
- Agarwal, P. K. (2019) 'Retrieval Practice & Bloom's Taxonomy: Do Students Need Fact Knowledge Before Higher Order Learning?', *Journal of educational psychology*, 111(2), pp. 189–209. doi: 10.1037/edu0000282.
- Berger, P. L. and Luckmann, T. (1966) *The social construction of reality: A treatise in the sociology of knowledge*. Anchor.
- Boud, D., Keogh, R. and Walker, D. (2013) *Reflection: Turning experience into learning*. Routledge.
- Chang, H. (2016) *Autoethnography as method*. Routledge.
- Coghlan, D. (2019) *Doing action research in your own organization*. Sage.
- Creswell, J. W. and Creswell, J. D. (2017) *Research design: Qualitative, quantitative, and mixed methods approaches*. Sage publications.
- Eber, P. A. and Parker, T. S. (2007) 'Assessing Student Learning: Applying Bloom's Taxonomy.', *Human service education*, 27(1).
- Edmondson, A. (2019) 'The role of psychological safety: Maximizing employee input and commitment', *Leader to Leader*, 2019(92), pp. 13–19.
- Filstad, C. (2007) *Learning in organizations*. Edited by G. Blåka. Oslo: Cappelen.
- Haave, H. M., Hole, Å. S. and Vold, T. (2016) 'Educating Managers in Knowledge Intensive Organizations', in. Academic Conferences and Publishing International.
- Hjertø, K. B. (2013) *Team*. Bergen: Fagbokforl.
- Keiser, N. L. and Arthur Jr, W. (2021) 'A meta-analysis of the effectiveness of the after-action review (or debrief) and factors that influence its effectiveness.', *Journal of Applied Psychology*, 106(7), p. 1007.
- Kolb, D. A. (2014) *Experiential learning: Experience as the source of learning and development*. FT press.
- Lave, J. and Wenger, E. (1991) *Situated learning: Legitimate peripheral participation*. Cambridge university press.
- Morrison, J. E. and Meliza, L. L. (1999) *Foundations of the after action review process*. INSTITUTE FOR DEFENSE ANALYSES ALEXANDRIA VA.
- Nonaka, I. (1994) 'A dynamic theory of organizational knowledge creation', *Organization science*, 5(1), pp. 14–37.
- Nonaka, I. and Takeuchi, H. (1995) *The knowledge-creating company: How Japanese companies create the dynamics of innovation*. Oxford university press.
- Polanyi, M. (2009) *The tacit dimension*. University of Chicago press.
- Raelin, J. A. (2002) "'I Don't Have Time to Think!' (vs. The Art of Reflective Practice)", *Reflections*, 4(1), pp. 66–79.
- Sarpong, D., Maclean, M. and Alexander, E. (2013) 'Organizing strategic foresight: A contextual practice of "way finding"', *Futures*, 53, pp. 33–41.
- Schön, D. A. (1984) *The reflective practitioner: How professionals think in action*. Basic books.
- Schön, D. A. (1987) *Educating the reflective practitioner: Toward a new design for teaching and learning in the professions*. Jossey-Bass.
- Senge, P. M. (2006) *The fifth discipline : the art and practice of the learning organization*. [Rev. and. New York: Currency/Doubleday.
- Senge, P. M. (2014) *The fifth discipline fieldbook: Strategies and tools for building a learning organization*. Currency.
- Tashakkori, A. and Creswell, J. W. (2007) 'The new era of mixed methods'. Sage Publications.