Dilemmas In Self-Directed Learning Spaces

Didactical Challenges Of Implementing The ‘Study Activity Model’ In Danish Higher Education

This paper is based on a research project, which is still in progress. In the project, we study self-directed learning spaces to find out more about dilemmas in such spaces.
Over a number of years, institutions have been given more freedom to determine the extent of direct face-to-face education. This has caused some variations in the number of such confrontation hours. This was a major debate a few years ago. Especially the ministry was worried about the students getting enough teaching and their level of study activity. On the other hand, the institutions tried to argue that students worked more than just by participating in face-to-face teaching.

This resulted in introducing the concept of ‘study intensity’, and the association of university colleges in Denmark developed a model that would show how study activity can be distributed in different learning spaces with different forms of interaction. The model is called the Study Activity Model.
The study activity model combines two dimensions: initiation and participation. Crossing the two dimensions creates four rooms – or categories - A space where the teacher initiates activity, and both the teacher and the student participate. Another room where teachers initiate the activity, but only the students participate. A third room where students initiate activities and only the students participate. A fourth room where students initiate, and both teacher and student participate.

Briefly speaking: the basic message to the educational institutions is to prepare the students for more self-management and self-direction in their study. Move activities from one, 2 to 3, and 4, especially 4.
A basic challenge causing dilemmas!

- As self-direction relies on student autonomy:

- How is it possible to develop students self-direction (autonomy) in study work when it is something required and controlled by the system?

- How can self-direction work, when it is decided by an external authority?

As a result, self-direction becomes a key issue, but the concept of self-direction gives rise some new questions?

Basically, self-direction relies on ‘autonomy’, which means, that a person decides its own acts and not let other authorities decide. Self-direction also means that you are responsible to your own decisions.

Therefore, the basic problem here is in some sense an inherent paradox as you may ask:

How is it possible to develop students self-direction (autonomy) in study work when it is something required and controlled by the system? You can put this dilemma in many ways: The system needs self-direction from students even if they are not interested. There is a risk of patronage, (if school authorities want to control personal development).
Having outlined the basic dilemma we want to narrow and focus our perspective.

Our approach to the question of self-direction is to look at pedagogical environments, which already contain self-direction. Therefore, we have chosen empirical contexts influenced by the problem based learning ideas. Two of the most crucial principles in PBL is problem orientation and participant direction, so the concept of self-direction is embedded in the PBL concept.
Following our approach interest in PBL environment, we chose two educational programmes with very different PBL models:

One is an architectural technology and constructing management programme, and the other is a retail design and management programme.

Both are so-called profession bachelors that involve both theoretical and practical dimensions which they seek to integrate through project work (PBL). This is usually also understood as depending on high student activity and control (self-direction)

Our research design is oriented towards three basic dimensions/methods:

- Curriculum – documentary analysis
- Classroom activities and interactions – observation
- Student and teacher reflections - interviewing
Methodology (2)

- Theoretical and analytical framework:
- Inspired by Maton (Bernstein Bourdieu)
- Four analytical aspects:
  1. Knowledge aspect (‘Epistemic Relations’ (ER))
  2. Knower aspect (‘Social Relations’ (SR) developing a knower gaze)
  3. Time aspect
  4. Physical space aspect

In constructing our analytical framework, we are inspired by code theory of Basil Bernstein, and Karl Maton. The framework should enable us to distinguish between various aspects of self-direction as something being framed and structured by the actors in education at all levels and by both teachers and students.

As a starting point, we found it relevant to look at four different aspects, which immediately seemed relevant. Those are:

1) The framing of the knowledge content to be learnt
2) The framing of the knowing subject; the student; it has to do with developing certain gazes, behaviors, attitudes etc.
3) How is the framing of time, and
4) How is the framing or structuring of physical spaces?

All aspects should be seen as a continuum of stronger or weaker, relative to how it has been or how it could possibly be, compared to other contexts/pedagogical practices.
The main question for analyzing curriculum is: What self-direction elements does ATCM-programme promote through PBL-pedagogy at curriculum level?

First we need to explain briefly about the PBL-model:

The PBL-model in Architectural technology programme is a result of a long going process of single subjects losing power as independent curriculum units. Around 2000 the ATCM course adapted PBL as a didactical framework to get a stronger focus on inter-disciplinarity rather than single disciplinarity.

Today it means that the study is organized around a project work running through each semester; (A new project every new semester). The single subject is no longer studied in itself, but works together with the other subjects as a reservoir for the projects. The relevance of the knowledge represented by the single subject is seen through the eyes of the project. This is a focus shift from previous curricula. In Bernstein’s terms, a shift from a collection code to an integration code has taken place.

Concerning the physical embedding of the study a division of students are made into classes of approx. 20 student each with their own classroom. In each classroom, students are further divided into groups of 3 to 5 persons each. The classroom is fully organized according the project work – so it is a working room. Each group establish their own small space, often with notice boards between, so they can pin up drawings etc.
How about the four structuring aspects in this PBL/project organized-environment?

As we have already indicated – over years single disciplinary knowledge has been backgrounded in advance of inter-disciplinarily, which results from the problem orientation of the project. The curricular documents today are filled with learning goals but without descriptions of knowledge objects. Clearly, focus is strong on learning and weak on knowledge.

This also points to the knower aspect. Here we find several indications of framing certain knower attributes. It is clear that the curriculum formulates certain norms for what is seen as ‘the ideal knower’:

An important point is: The ideal knower in education is the same as the ideal knower in the profession. Much of our data supports this, for example these quotes:

“You have now reached the first semester in the learning environment we call "professionalization". This means that the requirements for you and your fellow students will be more similar to the demands made on you in your future professional career.” (Syllabus, 3. semester)

“Now, we begin to communicate with you as if you are going to be a professional ... which you will be. We do not take you much by the hand ... We expect a lot of you ... of course ... in the fourth semester it will be a little more and in 5. semester even more...” (Observation/recording of semester-intro).
In the project, the students are supposed to take different rolls throughout a building project and live up to obligations and deadlines. The case-based project work makes it necessary that all study groups work with the same house object and that they are at the same project stage at the same time.

This, of course, calls for a tight time structuring, which the teacher have prepared in advance.

About physical spaces, some priorities are made in curriculum:

“As a student, you have your own ‘workplace’ at the education site which we encourage you to use.” (Syllabus 3. semester)

"It is through working with the project issues that the students demonstrate their competence development to Construction Technologists. Both theory teaching, group guidance and independent project work are organized in relation to the individual team and all activities take place in the same classroom.” (Curriculum Spring-16 p. 46)
Studying classroom practices, we found interesting variations from curriculum:

Knowledge aspect:

Knowledge becomes more visible in the classroom, which is something we often see. As teachers and students confront each other in the classroom students tend to seek more detailed information and guidance from teachers than they are supposed to according the Problem based principles – especially when the students feel under pressure. The teachers then try to be reluctant to give detailed instructions, because they want to keep up with the PBL-approach. On the other hand, they must also meet the students where the students are; this tension must not rise to a level where trust suffers damage. The result is – as we see it- knowledge aspect is strengthened. The content to be learned is getting more explicit.

Knower aspect:

Concerning the knower aspect, we find that orientation towards different knower dispositions gets weaker, which often results from an increased knowledge focus. The suggestions in curriculum about each student defining own learning goals and finding own learning methods are limited in pedagogical practice. The students necessarily divide the project work within the group, but the specialization they make is knowledge based, not knower based. In other words, the specialisms are based on epistemic relations not social relations. This becomes especially evident at assessment and exams.

Physical space aspect:

The importance of physical embedment becomes evident. If some project groups decide to work elsewhere than in the classroom, they might miss information and knowledge exchange. Sometimes, when an issue is raised in one group the teachers bring up the issue in the whole class for discussion. This is an example of how physical presence and being together become crucial. Space is also given more credits from the project
group themselves. In their group contract, they tend to strengthen the importance of presence in the classroom.

In summary:

Classroom moves towards a knowledge code, mainly because teachers emphasize certain knowledge forms and downplay personal traits and attributes.

A crucial point here is: the code change seems to limit self-direction, but it happens in the interaction. The students actively contribute to this.
Now we turn to the student reflections on study group activities.

From the students perspective it appears that the code change from curriculum to classroom practice offers a basic dilemma for the students to cope with: Should they respond to the ideals of curriculum or to the classroom reality?

One may think that the students would seek as much self-direction as possible and therefore grasp all opportunities offered. It is not the case. The students read the code in a pragmatic sense, not as it is in curriculum, but as it turns out to be in the classroom reality – which means that they respond to the relatively strong emphasis on knowledge and less on individual preferences. In fact, they do not even find it relevant to define their own learning goals and learning styles in a portfolio, although the curriculum has urged them to.

However, even with the stronger knowledge emphasis in the classroom, the ambiguous code leaves some room for a ‘game’ about self-direction. To some degree, teachers maintain the problem based principles. The students express a certain ambivalence regarding the idea of project work and ‘learning by doing’.

Quote:

(S1) “…..but sometimes it may be that you do not get so much information so you have to start working on it and so on; That you have to figure out what’s going to happen, and it can be extremely frustrating. But at some point it might be a good thing. ”

S2: ”Yes, I can also see that as a good thing.” (Interview no. 1 with student group L 210)

This is just one quote of many where the students are double-sided: Frustrating on the one hand, but they also find it contributive to learning.
If we look specifically at the four aspects, we can say that in some instances the students want teaching that is more instructive. For example Building management where new disciplines are introduced in 3. semester. Here they think they lose too much time by trial and error, which could have been avoided if they had more instructions from the teacher. They feel that in the end, the teachers only accept one solution.

A second dilemma, which we found in the group, was: The teachers tell the students, that each member should gain knowledge about all parts of the project, but this is time consuming. In addition, often they need to be efficient on time; otherwise, they cannot complete the project. If they prioritize efficiency, they risk to compromise learning. If they prioritize learning and knowledge exchange, they risk low efficiency.

According to time, the students find that the time structuring is too tight and want more self-control about time structuring. However, they set high standard themselves for time and space structuring. That appears from their group contract. The group have decided to meet every day in the classroom and work from 8 to 16.00 and there are serious sanctions for unannounced absence etc.
If we look at dilemmas from the teacher’s perspective, we also find one about balancing different considerations. If teachers go far in the problem based approach, students might be frustrated, and even lost. If teachers give the students what they want when they are frustrated, they might lose the idea of problem-based work.

Another dilemma is about group work versus individual performance. The teachers tell the students that each of them should know about all parts of the project, but they have difficulties in explaining more precisely the depth of the knowledge for the parts that the student has not carried out.
Main points:

Self-direction in pedagogical practice is smaller than anticipated in the curriculum. It is clear that teachers exercise further control over the knowledge and skills to be learned.

Even in this tightly structured PBL, students do not strive for more self-direction. On the contrary, in some instances - they ask for more direction. Only in terms of time structuring, they want to be more in control.

They do not search for self-direction arising from inner dispositions. The knower gaze is founded in the roles and identities from the professional field

A main driver for the students is that they can identify themselves with the profession, see the relevance of what they are doing. In this sense, the actual PBL-model proves successful.

Didactical questions:

- How can teachers take the strong dependence of physical space into account, when creating virtual spaces?
- How can teachers improve scaffolding the students learning in self-directed settings?

End.