


Learning, Leading, and Letting Go of Control: Learner-Led Approaches in Education

SAGE Open
October-December 2015: 1–11
© The Author(s) 2015
DOI: 10.1177/2158244015608423
sagepub.com


Ann-Merete Iversen^{1,2}, Anni Stavnskær Pedersen¹,
Lone Krogh², and Annie Aarup Jensen²

Abstract

The article introduces a new term in higher education: learner-led approaches in education (LED). This does not represent a single approach or dogma to replace existing dogmas, but a way of approaching learning and education that mirrors the complexity of society as it develops. LED is based on the assumption that all students have their own unique approach to learning and therefore have the potential to design learning processes that are meaningful for them. This removes focus from the teacher and the teaching to the learner and the learning. It builds on the student's motivation and experienced meaningfulness as a driving force, and hence the term *learner led*. The methods applied in LED change over time, as different learners and teachers together co-create and design methods and approaches appropriate at that particular time, in that particular context and for that particular student or group of students.

Keywords

education, education theory and practice, educational research, higher education, modernity and postmodernity

Introduction

The role of education is among other things to prepare students for an unknown future. This means that learning goals for education must also aim to make students capable of searching for knowledge, of selecting, analyzing, and evaluating findings against criteria and standards; of questioning their findings; and of becoming *knowledge producers*. This requires independent and critical reflection. As (global) citizens, they may find themselves in unknown contexts having to act according to changing conditions, which may be professionally and emotionally challenging. Consequently, education must cater for the “whole” person and ensure that students develop knowledge, skills, and competences in the cognitive, behavioral, and emotional domains to become strong individuals. However, often, education primarily focuses on the cognitive domain. Research within sociology and pedagogy shows that this is not enough (Bowden & Marton, 2006; Giddens, 2000).

The aim of the article is to introduce a new concept within teaching in higher education—learner-led approaches in education (LED)—which may facilitate students' development into becoming knowledge producers. The sources of inspiration and the experiences we draw on are, in particular, problem-based project work (PBL) at Aalborg University (Krogh, 2013), 8 years of didactical experiments with the

innovation pedagogical profile at University College of Northern Denmark (Haslam, 2012), classic teacher-centered methods, and a variety of methods aiming at developing creativity, innovational skills, and entrepreneurship. The development of LED was inspired by collaboration and exchanges between professors from Aalborg University, Cornwall College, and University College of Northern Denmark. In developing the theoretical framework of this approach, we have taken as our point of departure the principles of self-directed learning and the PBL methodology and the theories used at the innovation pedagogical profile. We have also been inspired by theories from the fields of organization, innovation, and design (Liedtka & Mintzberg, 2006; Stacey, 2007).

Data material has been gathered from an evaluation of a bachelor program in social education at University College of North Denmark designed in accordance to the basic principles of LED. The evaluation was carried out by the Danish

¹University College of Northern Denmark, Aalborg, Denmark

²Aalborg University, Denmark

Corresponding Author:

Ann-Merete Iversen, University College of Northern Denmark, Hobrovej 85, 9000 Aalborg, Denmark.

Email: ani@ucn.dk



knowledge center for evaluation in practice (Cepra) in May 2012 (Haslam, 2012). The data collection consists of the following data:

- Teaching plans
- Questionnaires to all students (January, 2011)
- Interviews with three teachers (October, 2011)
- Questionnaire to all graduates a year after completion of their studies (November, 2011)
- Questionnaire to the first cohort of students (December, 2011)
- Interviews with graduate students (March, 2012)
- Individual student portfolios from praxis example given later in the article

Surveys and questionnaires were responded to by approximately 80% of the students asked.

Conceptualization

As we define and use the concept of learner-led approaches, it is situated in the field of constructivist learning theory (Piaget, 1954; Vygotsky, 1978) and draws on active learning strategies. Key concepts in the field are constructivism, student activity, student-directed teaching and learning, and enquiry- or problem-based learning.

Student (or self)-directed collaborative teaching and learning is characterized by a teaching approach that aims to give students control, ownership, and accountability over their own education while the teacher acts as facilitator and resource person. It has been developed to counter institutionalized traditional teaching and is based on theories about how to support students in achieving better and more effective learning within a certain learning context (Ramsden, 2003). In practice, however, it will also be used to solve problems related to finance and lack of teaching staff (Wilson, 2001). The most essential learning-related aspect is that the student has a very active role. It may take various forms such as peer learning practices integrated into a course design, as for instance, study groups presenting a workshop for their class (Sampson & Cohen, 2001). Groups or teams may work on projects based on briefs provided by the teacher (Wilson, 2001), or choose a project from a range offered by the study program (Lederer & Raban, 2001). In such cases, teams work in a self-managed process with possibility of teacher intervention, if needed. Another example of student-directed learning is casework where the students select the course objectives and design the syllabus around a textbook chosen by the teacher, then choose from a list of assignments provided by the teacher (Gibson, 2011). In general, these approaches allow students to make their own choices in some of the educational aspects within the curricular framework to make education much more meaningful, relevant, and effective for them (Boud, Cohen, & Sampson, 2001; Dewey, 1933; Knowles, 1975; Ramsden, 2003).

PBL is a specific approach to learning closely connected to the ideas of student-directed teaching and learning (Barrows, 1986). PBL may occur more or less directed by teachers and as such related both to *teaching activities* in classes and to *independent (project) work* in teams. As a teaching activity, it is often seen as case-based, where the teacher has chosen a number of cases for the students to work on (Krogh et al., 2013; Laursen, 2013), and it thus shares some of the traits of student-directed learning. It is important to mention that students studying within this approach have to ask questions—they must search for knowledge and share findings with peers and teachers to create solutions. As a learning activity taking place parallel to courses, problem-based project work in teams over a period of time is self-directed. In the radical form, practiced at the Danish Aalborg University, students find and define the problems themselves, research the problems in question, search for literature and theory, make experiments and surveys, and critically reflect on the character of the problem and possible solutions. In this method, *the ill-defined problem* is the means of students' learning (Illeris, 1974; as opposed to the pre-defined problems of case-based learning), and students are expected to be able to “argue for, select, apply and assess specific theories and methods with regard to their appropriateness for dealing with the specific problem they have chosen for their area of inquiry” (Laursen, 2013, p. 30). The student groups are self-managed and supported in their work by a supervisor/facilitator. The group's work is documented in a written project report, which is submitted for examination (Kjærdsdam & Enemark, 1994; Krogh & Jensen, 2013).

In our understanding, *learner-led approaches* combines traits from the student-directed teaching and learning approach and self-directed problem-based project work and heavily relies on the students' active and responsible participation. As in the PBL approach, students have ownership of the process, but while in the PBL approach, course content and format supporting the project work are generally decided upon by the teachers, in learner-led approaches, the students themselves decide on the content and format and take responsibility for some of the teaching activities and lectures in collaboration with teachers. Self-directed project work may be seen as an integrated part of the learner-led approaches, where students themselves decide on the topic of their work and the research approach. Both PBL and the learner-led approaches are carried out within a curricular framework with which they must comply.

A question to be asked, then, is, “How does the concept of LED differ from similar concepts such as self-directed learning and student-centered learning?” Malcolm Knowles (1975) describes self-directed learning as “a process in which individuals take the initiative without the help of others in diagnosing their learning needs, formulating goals, identifying human and material resources, and evaluating learning outcomes” (p. 18). Student-centered learning can be defined as the following: “Student-centered learning is a broad teaching

approach that encompasses replacing lectures with active learning, integrating self-paced learning programs and/or cooperative group situations, ultimately holding the student responsible for his own advances in education” (Nanney, 2004, p. 1). Learner-led approaches, however, replace the term *student* with the term *learner*. This signals a shift in focus from formal positions within an educational system (students and teachers) and to the processes that take place in the shared space of learning.

In both student-directed and student-centered learning, students are responsible and active to a higher degree than in traditional teacher-centered teaching. In self-directed learning, the individual student takes the initiative without the help of others, and in student-centered learning, the students are responsible for their own advance. In LED, the traditional teacher role is replaced not by the individual student but by the collective through a co-creation between students and teachers where didactics are designed and methods developed within the curriculum. This process is by its very nature context-sensitive and thus sustainable in a long-term perspective. The methods applied in LED change over time, as different learners and teachers together co-create and design methods and approaches appropriate at that particular time, in that particular context and for that particular student or group of students.

Post-Modern Students

International and Danish research shows that Danish students can be characterized as post- or late-modern students (Giddens, 1991; Thomsen, 2007; Ziehe, 1989). From an early age, they feel a deep sense of individualism and self-responsibility. In secondary school, many students give evidence of a strong feeling of responsibility for making the right choices in life to secure their happiness and success in all areas, personally as well as professionally (Hutters, 2013; Illeris, Katzenelson, Nielsen, Simonsen, & Sørensen, 2009). Although Ziehe’s analyses of youth culture date back some years, we still find them relevant, as they provide us with insight into the complexity of factors influencing students’ lives. Ziehe points to *three* important aspects: unlimited access to and flow of information, which gives students the feeling that any given subject is already well known, learners’ reluctance to venture into an activity unless the outcome is known beforehand, and the claim or expectation that any given task, activity, or text should relate directly to the individual learner, in other words, *What is in it for me?*

In Higher Education (HE), we therefore have to deal with two potentially opposing factors: (a) students’ motivation, which will greatly influence their choices and opt-outs, and consequently their allocation of time and effort in education and (b) formal requirements, educational goals, which have to be fulfilled. We therefore frame the overall problem of this article as how to create meaningful learning scenarios that are so engaging, inspiring, and motivating for students, that

they “opt in” instead of “out,” that they encourage studying and learning in an independent way, that is, with less control, and finally that are adjusted to the conditions of HE today and the unknown demands of tomorrow.

Educational Systems Moving From Modes 1.0 to 3.0

It appears to the authors that educational systems in many ways are out of date. Besselink (2014) states,

I see education struggling with its place in society. I often encounter a search for meaning and direction when I help schools or universities in their transition . . . An “education” and its forms and procedures are simply taken for granted. Modern education’s objective of emancipation and industrialization have been accomplished, and innovation in education occurs only under strict and conservative inspection. (p. 95)

Based on our experiences from HE, we recognize the struggle between a fixed perception of the concept of education and a need for taking the next step. It seems that the overall question that needs to be asked is, “How do we go about developing educational practices that match societal, cultural, and technological change?” You could say that educational systems in some ways still operate in the so-called Mode 1.0 or perhaps 2.0, while cultures and societies around them are operating in Mode 3.0 (Moravec, 2008). The amount of accessible knowledge is increasing rapidly and so are the platforms of learning and consequently the possibilities for constructing knowledge. Moravec introduces the term *knowmads* to describe the 21st century knowledge worker. Knowmads are

valued for the personal knowledge that they possess, and this knowledge gives them a competitive advantage. Knowmads are responsible for designing their own futures. This represents a massive shift from agricultural, industrial, and information-based work in which our relationships and responsibilities were clearly defined by others. (Moravec, 2014, p. 19)

The individual may create his or her own unique pool of knowledge, and the formal educational system is merely one among a broad variety of legitimate learning contexts. The learner is “in the control room,” and this requires skills that learners have not necessarily acquired in formal educational contexts. However, in the world of social media and other virtual communication and information platforms, a majority of young people in technologically developed countries have the ability to gather and produce the information needed to have what we could call “a virtual life.” They are highly motivated toward keeping in touch and staying visible on social platforms such as Facebook, Twitter, and Instagram, motivated to an extent that many teachers envy. What is the attraction? What fosters the motivation, and could we tap into these highly motivating platforms and processes in some relevant ways?

Student motivation in this case is influenced by criteria that might have little or nothing to do with formal requirements, because they might not necessarily be perceived as meaningful. This leaves educational institutions in a somewhat awkward situation. They can either accept students' choices and opt-outs with the risk of increasing frustration among teachers or, as we suggest, start investigating what seems to be meaningful from the students' perspective. In his book *Freedom to Learn for the 80's*, Rogers (1983) defines meaningful learning as having a "quality of personal involvement—the whole person in both feeling and cognitive aspects being in the learning event" (p. 20). And more importantly, meaningful learning is initiated by the learner and changes behavior, attitudes, and maybe even personality of the learner. Evaluation is carried out by the learner according to the experienced meaningfulness of the learning process—does it provide the learner with what she or he needs and wants to know?

So, HE is facing the challenge of bridging the gap between formal requirements and experienced meaningfulness by students. We advocate learner-led approaches (LED) as a way of approaching education that mirrors the rapid development of society (Lundvall, Rasmussen, & Lorenz, 2008). Therefore, a key point of this approach is for students to develop the expertise to design learning processes that are optimal and meaningful for them. We thereby shift focus from the teacher and the teaching to the learner and the learning processes, hence the term *learner led*. The methods applied in LED will change over time, being both culture- and context-sensitive.

Basic Principles of LED

In a situation where students are becoming *knowmads* and given what we have said about student learning, LED places part of the initiative of finding, processing, and creating knowledge with the learner. The radical change in LED is that the research and knowledge production is done according to students' experience of meaningfulness—within the framework of formal educational goals. This leaves us with a dilemma: Is every accessible bit of information and every action relevant in any educational context? No, not necessarily. Students therefore need a strong critical sense and *frames of reference* (Mezirow, 1997). "Education that fosters critically reflective thought, imaginative problem posing and discourse is learner-centered, participatory and interactive" (Mezirow, 1997, p. 10). These are also some of the characteristics of *transformative learning*. Instructional material should *reflect real-life experiences* but, at the same time, introduce students to methods they are not familiar with. Mezirow describes how the teacher gradually moves from being an authority figure to being a co-learner and a facilitator. The leadership is transferred to the students.

Learning being led by the learner poses yet another dilemma. The concept of learner-led approaches is based on

the assumption that the learner in fact can lead his or her own learning processes. Given very different backgrounds and experiences, some will find it easy and natural, while others will find it challenging, difficult, or even impossible. A person's perception of ability or lack of ability, when confronted with a difficult task—their *self-efficacy* (Bandura, 2012)—has a determining influence on the ability to solve the task. A student with little or no self-efficacy in being self-directive will need support from the teacher/facilitator or peer students. The teacher is responsible for creating the overall framework and thus facilitating learning processes according to progress and development of the student through dialogue, portfolio, or other means of evaluation and self-evaluation. Kirketerp (2010, 2012) has developed a method called "SKUB" (English: PUSH), where teachers gently push students into action by helping to set up relevant tasks to be solved, as part of the formal curriculum. This has proven both to improve self-efficacy and to stimulate students toward acting with knowledge.

Taking Design Approaches Into the World of Teaching

In developing the didactic of LED, we were, as mentioned in the beginning, inspired by different approaches and knowledge fields. Work by Liedtka and Mintzberg (2006) on architects' open user-driven design processes inspired us to focus on an open user-led design process for teaching, using communication as a path to user involvement. Liedtka and Mintzberg understand learning as something complex and non-linear that emerges in communication. They describe four different approaches to design processes. Below, we translate them into an educational context, describing four different didactic approaches to teaching: a formulaic approach, a visionary approach, a conversational approach, and an evolving approach.

In the formulaic approach, the design expert conceives, formulates, and controls the design. It is "a controlled process, with a fixed design, where the design is based on the designer's global knowledge and expertise" (Liedtka & Mintzberg, 2006, p. 13). Translated into teaching, this means that teaching is primarily based on the teacher's knowledge of the subject and expertise in how to teach it. The expert teacher activates his or her global knowledge, and formulates and controls the didactics and the teaching content, trying to control students learning outcome. This approach is often seen in HE institutions, for instance, in lecture halls. One criticism of this is that "its detachment from the users—the people who must live with the design—is a potentially fatal flaw" (Liedtka & Mintzberg, 2006, p.13). Not involving students may lead to a teaching design that is not well-suited to students' needs and prerequisites. The consequence may be students who are not overly engaged or motivated, and one might miss the opportunity of developing a more radical design.

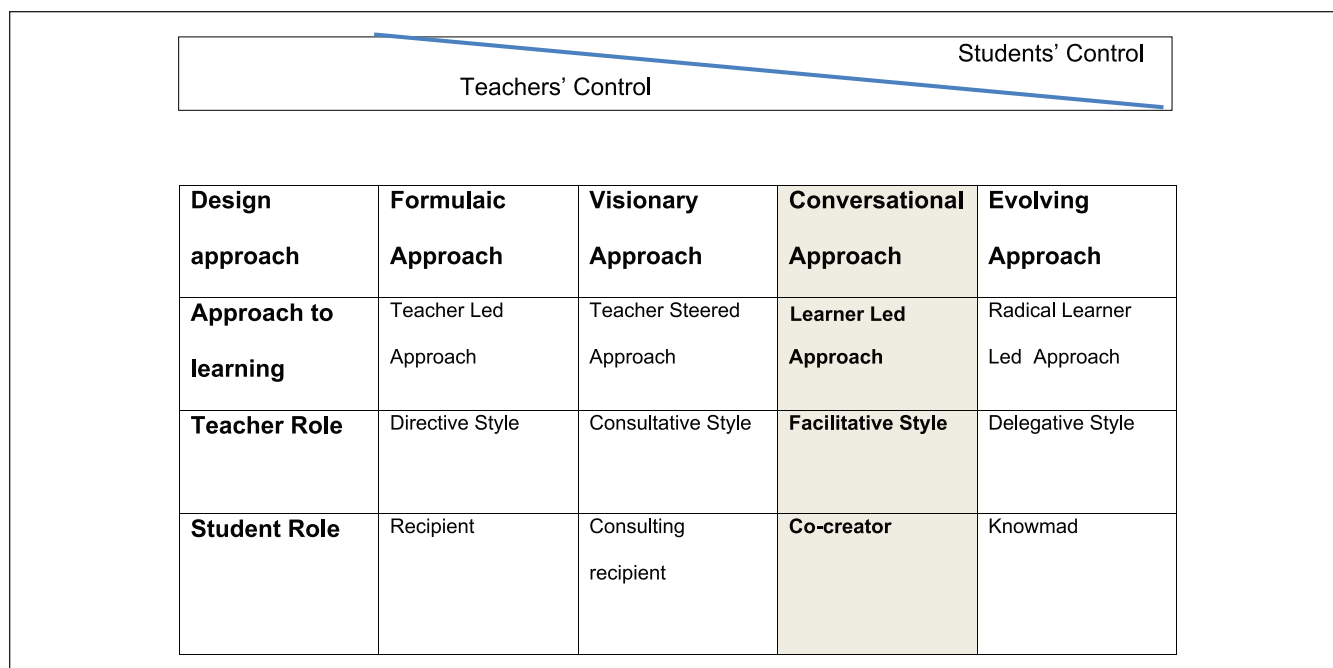


Figure 1. The LED teaching relation model.

Note. The model (Iversen, Jensen, Krogh & Stavnskaer, 2015) “translates” the design thinking by Liedtka and Mintzberg (2006); the description of complex responsive processes by Mowles, Stacey, and Griffin (2008); and Ben’s (2006) model of empowerment into educational thinking and the relations between student and teaching in the teaching situation.

In the *visionary approach*, the designer’s vision is leading the design process, but with space for adjustment. As a teaching approach, the teacher’s vision leads the design and decides the content of the teaching, but there is room left for adjustment based on students’ feedback.

In the *conversational approach*, users are involved in the design process through communication. This approach “opens up the design process—making it a conversation among many people, all of whom should be recognized as designers” (Liedtka & Mintzberg, 2006, p. 14). Transferring this approach into the educational world, students are involved in the design of teaching. This is similar to what we call the LED approach, where students and teachers co-create the didactics and content at the beginning of each period, class, or session. This approach is characterized by a high degree of user involvement. It is based on communication strategies similar to the “complex responsive processes,” described by Mowles, Stacey, and Griffin (2008) and Stacey (2007). With experiences from the world of design and innovation, they argue that the path to innovation goes through communication with local actors and not along a path staked out in advance by an expert. If users are expected to find values and feel ownership, it is essential that they are involved in the whole design process. According to this, teachers and students have to be involved in the design of teaching and teaching together—in co-creation processes. Attention to daily challenges confronting users means that final results can be transformed in a decisive way, and a new and different path may emerge: “We should expect

not to see what we set out to achieve in the way we originally intended” (Stacey, 2007, p. 812). In an educational context, it means that if we choose the LED approach to teaching, teachers must be very open toward students’ proposals and prepared to accept other visions of the process. By listening carefully to students and involving them in co-creation processes, we must transform our role as teachers and be open to having our views on teaching challenged.

Stacey (2003) unfolds this perspective by describing how the *new* emerges through communication with others, and that this kind of transformative learning process “*involves moving into the unknown*” (p. 330). How students and teacher communicate is of significant importance and determines to what degree it is possible to involve students.

The last approach is an *evolving approach*, where the design is continually shaped by users in an open source process (Liedtka & Mintzberg, 2006). In LED, an important part of the process is students doing research themselves. Parts of this process take place without involvement of teachers. The final result of the process is teaching done by students and for students, with a variety of learning processes taking place in and out of class, as well as on digital platforms. This will be elaborated below.

Our model inspired by Bens’s (2006) model of different levels of empowerment between leader and staff gives an overview of the four approaches to teaching (Figure 1). It indicates the gradual shift in roles for both students and teachers.

The type of teaching we typically experience in HE is the *teacher-led approach*: “Most of our scholarly traditions—stripped as they are of advocacy and action—limit scholars to observation and reporting” (Adler & Hansen, 2012, p. 1). A teacher-led approach often results in unmotivated students. Ziehe (1989) argues that teachers constantly have to legitimate their teaching, and their personal and professional authority is often challenged. The teacher-centered approach with its corresponding passivity affects motivation negatively in post-modern students, demanding different approaches to learning.

At the other end of the continuum is a *radical learner-led approach*, where students’ learning processes are continuously taking place initiated by students themselves and with little or no teacher interference. We have studied this radical version of LED in relation to problem-based project work, that is, not in a classroom context. It is, however, interesting, because it represents an approach to learning that points to the development described by Moravec as “knowmad society,” characterized by self-motivation, independent and self-directed gathering, and use of information.

Co-Creative Dialogue

To explore the form of communication that can facilitate co-creative dialogue between teachers and students, we turn to Shaw (2002), who takes her point of departure in complexity theory. Shaw (2002, 2005) includes a concrete description of the communicative approach to user-driven design, which could be transferred into an educational context and integrated in LED approaches. She describes an open and meaningful type of communication that captures the interest of participants, revolving around what excites or even frustrates participants. The dialogue implies a willingness to explore and improvise. The teacher listens closely to what students say and lets associations arise. “I am describing the process of weaving in our actions one with one another to co-create the future” (Shaw, 2002, p. 70). However, they also need very clear and direct communication from the teacher about the learning process, the necessary *framework of the curriculum* and the subject.

This implies that the purpose of dialogue between students and teachers is not just to understand their existing approach to teaching but also to co-create new ideas for teaching design. The teacher becomes facilitator to encourage lively dialogue and encompass different views, even conflicts, regarding how and what is going to be taught. This requires that teachers and students alike are at ease with an open approach. Teachers must let go of fixed agendas and be able to help students do the same. “Leading becomes being able to articulate issues and themes as they emerge and transform” (Shaw, 2005, p. 21). A learner-led approach requires the teacher/facilitator to be very conscious of the form of communication used when in dialogue with students about content.

We use the concepts of teacher and facilitator. Literature about the role of the facilitator and the process of facilitation offers a variety of interpretations of these concepts (Bens, 2006; Ghais, 2005; Ravn, 2007; Rogers, 1983). Our understanding is closest to that of Rogers. He emphasizes that learning processes belong to the students and that the teacher’s most important role is to help them in these processes—the teacher must humbly take the role of facilitator. To facilitate in this context means guiding the process of seeking knowledge (Rogers, 1983).

After listening carefully to what students say about content, forms/methods, and desired outcome, together with students, teachers paraphrase and make associations on the basis of what they have perceived. Generally speaking, teachers should be good at asking questions and stimulating students to ask questions themselves to create lively dialogue. This also implies being able to balance different viewpoints and manage conflicts. Students should be encouraged to express explicitly how they understand learning—so that teachers can relate their understanding to other approaches. A LED-learning process allows something new and unforeseen to emerge from co-creative learning processes from the very first stage, due to the explorative process of determining content and deciding on design.

Learner-Led Approaches: An Example

Below, we describe how LED was carried out in the fourth semester of a bachelor program, in a 5-week culture studies course. Participants were a class consisting of 29 students, 2 teachers, and a teaching assistant. The assessment of the course took place as part of a project exam assessing a number of courses (Danish, Communication and Culture). Phases were as follows:

Planning

The teachers planned how to introduce the course and its formal goals. Key terminologies were chosen to set an initial direction of the course and frame it within the formal requirements. Key terminologies were *interculture* and *cultural encounters*.

Introduction/Framing

The teachers introduced the formal frames and goals of the course and the overall method—LED, that is, the didactics and the purpose of learner-led working. Key terminologies were introduced. This phase was teacher-directed.

Pre-Conceptualization and Visualization

Students activated their preconceptions of the chosen terminology in groups formed randomly by the teachers. They brainstormed and wrote the result on flip-overs. Teachers facilitated the process.

Exploration

Based on results of the pre-conceptualization/visualization, students individually formulated tentative research questions, which were written down on post-it notes and made visible for everybody in the room to explore. Again, the teachers facilitated the process. Examples of questions asked were as follows: How do I get to know my own culture? What is culture? Where do cultural encounters take place? What characterizes cultural encounters? How can I develop intercultural skills?

First Design

Students categorized the questions to formulate topics that would give structure for the rest of the course. The first research was done on the topics. Teachers facilitated.

Topics that came up were media, knowledge/school culture, understanding, culture in general, the meeting between people from different cultures, and exclusion/inclusion.

Method

In an open process, students discussed and developed suggestions for how the chosen topics could be “taught.” They pitched the different suggestions to the group. Suggested methods were written down and later on integrated in the onward planning. A deadline was set for incoming method suggestions. Among the suggestions were fieldwork, role-play, ethnographic studies, combining analysis, reflection and different artistic expressions, public performances, narrative methods/life history, and the more classic—lectures from students and teachers, guest lectures.

Choosing Focus

Individually, students choose among the topics formulated. Students may form groups based on their choice of topic or work alone. Six groups were formed, and two students chose to work alone. The two students working alone later in the process chose to share discussions and give each other feedback.

Toward a Design

All suggestions for methods, materials, discussions, and so on were published on a shared information platform. In this case, we used Dropbox and Google Docs.

Overview

Teachers gathered the published suggestions and formed an overview by integrating as many suggestions as possible into a meaningful whole, balancing suggestions from the students, the teacher’s own ideas, and the formal educational

requirements. This is the LED triangulation, and it is the teachers’ responsibility.

The Puzzle Is Put Together

The teachers presented the overview to students, and the design was discussed and decided on. Assessment, feedback, and presentation methods were discussed and decided by teachers and students together. Responsibilities and tasks were distributed among teacher(s) and students, and a plan was made. Who would teach what and when? Which exercises were relevant, and who would facilitate them? Which groups would be formed, and which topics would they be working on? Would there be field studies and where? Some activities were facilitated by the teacher, others by the students, and some were co-created as the course progressed. Up until the end of the course, the process remained open.

This process ended with a design consisting of lectures with exercises given by the teachers alone and with students, lectures by a guest lecturer chosen by the students, lectures given by the students, role-plays combined with analysis and reflection facilitated by the teachers, and narrative exercises designed and facilitated by two students. All groups did field studies in a variety of contexts; one group carried out a culture study in a shopping street in one of the larger cities in Denmark, one group designed a homepage, one group studied skater culture and made a documentary, one group performed a Facebook study on homosexuality, one student performed a cultural study among people collecting usable garbage (in Danish “skraldere”) and got so hooked on the lifestyle that she persuaded several other students to take it up, and one group designed a complete set of teaching material about culture and cultural encounters to be used by social workers.

Documentation and Course Evaluation

As the course progressed, documentation of learning processes elaborated on the shared communication platforms. Both students and teachers shared and commented on the materials produced. All students handed in individual logs with descriptions of and reflections on the course and received feedback on the logs from the teachers. All groups gave presentations followed by discussion facilitated by the group and feedback given by students and teachers in accordance with the formal requirements of the course.

Analysis of Student Evaluations of LED

In their individual logs, students were asked to evaluate working with learner-led approaches. Most students expressed appreciation of the meta-communication regarding curricular frames, arguing that it enabled them to understand learning processes at a higher level and to apply this acquired understanding to their professional skills. Some

expressed appreciation of their new role in teaching situations and the empowerment they experienced, which led to both subject-related and personal development (all quotes are from student logs).

Below, in addition to giving voice to the students' experiences and their own understanding of their learning outcome, we will show some of the additional learning outcomes of the process.

All in all I think this course has been very good, I find it interesting to work in a new way, where you all of a sudden are given influence on the content of the teaching. (Student C)

From Student C's statement, we see that the idea of students having influence on the content of their course is a new and unexpected concept ("a new way," "all of a sudden"). Below, we see how students experienced this and some of the learning outcomes of the course.

And now I know . . . I should live my life. Be proactive and interactive . . . The Learner Led Approach helps a lot to feel good about myself. During the idea generation stage, the class had the opportunity to write individually the things we would like to learn about culture studies. We designed the teaching structures and contents through a certain process both as individuals and as a group. I was both in harmony with myself and others. I enjoy listening to my own learning needs as well as the needs of others. (Student A)

The learning outcome described by Student A is an example of something new and unforeseen ("to feel good about myself") that emerges from the processes of both individual and co-creative activities. Referring to Rogers's (1983) definition of meaningful learning, we see that the student experiences a learning process that involves the whole person, their feelings ("in harmony," "enjoy listening") as well as cognitive aspects. Last but not least, there are indications of a beginning feeling of empowerment ("I should live my life. Be proactive and interactive"). The following statement by Student B emphasizes the aspect of personal development, to which the course has led,

It's a fantastic and innovative approach and a great opportunity to have as a student because it puts me in a position where I am master of things, I can leave my own marks and I learn to manage myself. I have gone through a huge personal development by conducting myself, and being in control of the process. It has given me a taste for autonomy. (Student B)

In Student B's statement, we see an experience of empowerment ("master of things," "being in control") and a development toward a higher degree of independence and self-direction ("a taste for autonomy"). We interpret this as an indication of meaningful learning that might change behavior, attitudes, and maybe even the personality of the learner. The following statement shows the reflection the

student has on his or her preferred learning style in relation to the course:

It means a lot to me to play an active part. I learn best by trying, touching and feeling. (Student D)

Student D may have had this understanding before the course, but it emphasizes that the course concept was experienced as catering for the whole person, in a way that supported Student D's learning processes. It is, however, not necessarily a straightforward task for students to grasp the concept of LED because it challenges their traditional understanding of classroom teaching and the roles of teacher and students, as expressed by Student E:

I find the idea (of Learner-led approaches, ed.) extremely good. To me personally it was messy for a long time. But at one point the meaning of it all became clear to me and it came out good. Especially when I look at all the different things people chose to work with. I do, though, see a challenge in covering everybody's learning needs over a relatively short period of time. (Student E)

Student E struggles with understanding the concept ("messy for a long time"), and the statement shows the importance of allowing time for the meaning-making process to take place through the individual's active participation. Furthermore, it is interesting to observe the students' meta-reflection on the didactic challenge of the concept ("covering everybody's learning needs"), which shows an analytical approach—an additional learning outcome. In the following statement, we see other aspects of the challenges experienced:

. . . we are involved, challenged in leading and standing by the actions we find exciting and relevant. I like being in the process, but I always have a need to see where things are heading, where we will end. I am repeatedly challenged and I work hard with myself in this phase. (Student F)

Apart from the excitement, Student F clearly expresses the personal and emotional challenges felt "by moving into the unknown" as Stacey (2003) put it. Psychologically, it is demanding to be in an open-ended process, as demonstrated by Student F's statement of his or her conscious efforts to deal with that ("I work hard with myself"). This shows another aspect of the additional learning outcome, that is, the student's understanding of the character of the process, as well as his or her own reaction to the situation. Another aspect of the new challenge is described in the students' taking responsibility for their interpretations of what is relevant content ("standing by the actions") and thus of interest to this particular group of students as well as being in accordance with formal requirements.

Relating these results to our initially stated two challenges, we found that the LED course was experienced as a meaningful learning scenario for the students, to such an extent that they were willing to allocate the time and effort to

understand the concept and the learning-related rationale behind it. The format motivated students to opt-in and to be part of the co-creative processes, even when they were experienced as open-ended and thus somewhat daunting. They managed to deal with the insecurity of the “unknown” and took on the aspects of responsibility open to them. The course was experienced as addressing the whole person through a variety of activities, and there are indications of both emotional and cognitive development, some of which may be regarded as unintended and additional personal development. The course consequently seems to have managed to successfully solve the problem of two opposing factors: Students found the course relevant and were motivated and hard-working, and the formal requirements were met.

These findings are substantiated by the large-scale overall evaluation of a bachelor program in social education specializing in innovation at University College of North Denmark. In the report, students describe how learner-led approaches made them better navigators in chaos and equipped them with a sense of coping (Haslam, 2012). “We have been trained to throw ourselves onto a rocky foundation and navigate there” (Haslam, 2012, p. 13). Another student expresses himself with reference to the domain of action and shows capacity for taking initiative: “I have a special focus on pedagogical and societal dilemmas and I try to find solutions and active interventions” (Haslam, 2012, p. 19). The didactics that encouraged the development of the students’ competence for action were that they were “compelled to act.”

Regarding motivation for the work and the ability to set one’s own goals, these would seem to be inherent elements of the approach (Haslam, 2012, p. 21). There are points of similarity between some of the factors identified by Amabile (2002), who emphasizes that individuals must be offered a certain degree of autonomy to encourage the development of intrinsic motivation: “Autonomy around process fosters creativity because giving people freedom in how they approach their work heightens their intrinsic motivation and sense of ownership” (Amabile, 2002, p. 82). According to Amabile’s recommendations, students should be given fixed academic expectations and clearly structured assignments, but they should be given considerable freedom to choose and solve the challenges they meet on the way. The LED approach seems to encourage students’ sense of ownership and intrinsic motivation.

At the same time, the students seemed to acquire a high degree of self-efficacy: “People with high efficacy approach difficult tasks as challenges to be mastered rather than as threats to be avoided” (Bandura, 1993, p. 144). Bandura’s (1993) point is that this does not have to involve the students’ actual ability to meet challenges, but only their *belief* in their own ability, and that this latter belief is the decisive factor in determining how they deal with the field of non-knowledge: “students’ belief in their efficacy to regulate their own learning and master different subjects” (p. 135). The students’ evaluations of their ability to handle chaos or “messiness” in

learning situations can be understood as expressing a high degree of self-efficacy.

For the future development of LED, it will be important to develop the assessment form to align the teaching and learning forms. The students report that this is not the case at present. Because the course is assessed together with other courses, they feel they have to adapt their performance so that it fits in with the demands of the assessment form where it is mostly their academic abilities that are assessed, and not their innovative and creative abilities and action competencies, obtained through LED didactics.

Discussion

If the aim of teaching is to promote appropriate learning—and that learning must be significant, meaningful, and involving—we need a new focus on how we organize teaching. Involving the whole person in learning means, as Rogers suggests, freeing the learner and utilizing his or her whole body, brain, and emotions in communicative processes with peers and teachers (see also Illeris, 2006). “Significant learning combines the logical and the intuitive, the intellect and the feelings, the concept and the experience, the idea and the meaning. Learning in that way, we are whole, utilizing all our masculine and feminine capacities” (Rogers, 1983, p. 20).

The LED approach represents one answer for meeting some of the demands and needs from society and workplaces regarding education for the future. Based on our studies, students taking part in co-creating processes generally seem to be more involved and engaged in the learning processes.

Introducing close collaboration with students in teaching processes poses challenges to both teachers and students. First of all, it makes it necessary to organize teaching environments in new ways. Even with large classes, LED approaches seem to be sustainable. It is a matter of didactic expertise and believing in the students’ potential. Some teachers may find it difficult to believe that students can take on responsibilities in the way required in LED approaches. Our studies show that most students seem ready to take on their part of the responsibilities in the co-creating processes. However, our studies also show that there may be some difficulties for students who are unfamiliar with the democratic aspects that typically characterize Nordic educational systems. It might be argued that the experience of “messiness” or “chaos” expressed by students is an unavoidable effect of any open design phase to promote diversity and creativity in the co-creation process. Nevertheless, some students may opt out if the confusion is not properly handled in the shared spaces of the process.

Covering a wide range of learning needs is another challenge, which demands time, resources, and carefully structured communication between students and teachers. Letting go of control, in the classic sense of the word, requires both co-creative dialogue and documentation of the learning

process taking place in the group and the individual student. Interactive logs, portfolios, Google documents, and other materials produced by students and teachers contain potentially valuable evaluation of the course, if properly analyzed. Such analysis takes time and resources and also requires a systematic approach, which includes comparing the documentation of the learning outcome with the formal goals of the course.

To navigate in this complex and relatively uncontrolled learning scenario, global and didactic knowledge of teaching and facilitating, communication skills to encourage lively dialogue and improvisation, and abilities to encompass different views in relation to how and what is going to be taught and learned are required of the students as well as the teacher. This places considerable demands on both teachers and students.

Some may also say that LED approaches will only be possible within the humanities and some of the social sciences. A counter-argument here is that worldwide educational research shows that the more students find teaching meaningful, relevant, and engaging, the more and better they learn (see, for instance, Ramsden 2003; Hattie, 2003; Helmke, 2013). LED is about making learning meaningful, relevant, and engaging, regardless of subject.

The last challenge is related to assessment forms. It is well known that, for assessment to be valid, reliable, and fair, there must, to a large extent, be alignment between learning goals, teaching forms, and assessment forms. Therefore, when practicing LED, teachers must make sure that the assessment is aligned with the fundamental principle of co-creation and learners leading.

Conclusion

We set out to introduce the concept of learner-led approaches within teaching in HE. Our intention was to create a concept that meets the requirements of post-modern students and matches formal requirements, educational goals, and the current situation of HE. Our findings show that, in many ways, LED meets these criteria, but, at same time, some challenges exist. First and foremost, LED places high demands on both students and teachers. The students must exhibit—or develop—a high level of self-management and an ability to navigate in the experienced messiness of design processes. Teachers must be willing to let go of control and accept the unpredictability of co-creation while being very conscious and explicit about the formal goals and demands in the curriculum. This calls for reconstruction of student–teacher relations.

Declaration of Conflicting Interests

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Funding

The author(s) received no financial support for the research and/or authorship of this article.

References

- Adler, N., & Hansen, H. (2012). Daring to care: Scholarship that supports the courage of our convictions. *Journey of Management Inquiry*, 21, 128-139.
- Amabile, T. (2002, September-October). *How to kill creativity*. Boston, MA: Harvard Business Publishing.
- Bandura, A. (1993). Perceived self-efficacy in cognitive development and functioning. *Educational Psychologist*, 28, 117-148.
- Bandura, A. (2012). On the functional properties of perceived self-efficacy revisited. *Journal of Management*, 38, 9-44.
- Barrows, H. S. (1986). A taxonomy of problem-based learning methods. *Medical Education*, 20, 481-486.
- Bens, I. (2006). *Facilitating to lead! Leadership strategies for a networked world*. San Francisco, CA: Jossey-Bass.
- Besselink, T. (2014). *Learning choreography in knowmad society*. San Bernardino, CA: Education Futures.
- Boud, D., Cohen, R., & Sampson, J. (2001). *Peer learning in higher education: Learning from & with each other*. London, England: Kogan Page.
- Bowden, J., & Marton, F. (2006). *The university of learning: Beyond quality and competence*. London, England: Routledge.
- Dewey, H. (1933). *How we think: A statement of the relation of reflective thinking to the educative process*. Boston, MA: Heath.
- Ghais, S. (2005). *Extreme facilitation: Guiding groups through controversy and complexity*. San Francisco, CA: Jossey-Bass.
- Gibson, L. (2011). Student-directed learning: An exercise in student engagement. *College Teaching*, 59, 95-101.
- Giddens, A. (1991). *Modernity and self-identity*. Stanford, CA: Stanford University Press.
- Giddens, A. (2000). *Modernitet og selvidentitet* [Modernity and self-identity]. Copenhagen, Denmark: Hans Reitzel.
- Haslam, T. L. (2012). *Evaluering af innovationsprofilen pædagoguddannelsen* [The evaluation report of the innovative profile at Social Education]. CEPRA. Retrieved from http://www.ucn.dk/forside/forskning_og_udvikling/indsatser/cepra.aspx
- Hattie, J. (2003, October). *Teachers make a difference: What is the research evidence?* Paper presented on the Australian Council for Educational Research Annual Conference on Building Teacher Quality, University of Auckland, Melbourne.
- Helmke, A. (2013). *Undervisningskvalitet og lærerprofessionalitet* [Teaching quality and teacher professionalism]. Frederikshavn, Denmark: Dafolo.
- Hutters, C. (2013, April). *Universitetsstuderendes tilgang til uddannelse og læring* [Student approaches for teaching and learning]. Oplæg på Undervisningens dag, Aalborg Universitet, Denmark.
- Illeris, K. (1974). *Problemorientering og deltagerstyring: Oplæg til en alternativ didaktik*. København, Denmark: Munksgård.
- Illeris, K. (2006) *Læring* [Learning]. Frederiksberg: Roskilde Universitetsforlag.
- Illeris, K., Katzenelson, N., Nielsen, J. C., Simonsen, B., & Sørensen, N. U. (2009). *Ungdomsliv. Mellem individualisering og standardisering* [Adolescence: Between individualization and standardization]. Frederiksberg, Denmark: Samfundslitteratur.

- Kandidat- og Aftagerundersøgelser, 2002/03 & 2009. Available from www.cand.aau.dk
- Kirketerp, A. (2010). *Pædagogik og didaktik i entreprenørskabsundervisningen på de videregående uddannelser i et foretagsomhedsperspektiv* [Paedagogics and didactics in entrepreneurship teaching in higher education from an affectuation perspective]. Odense, Denmark: Syddansk universitetsforlag.
- Kirketerp, A. (2012). Foretagsomhedspædagogik og SKUB-metoden [Affectuation paedagogics and the PUSH method]. *Kognition og Pædagogik*, 83, 66-86.
- Kjærdsdam, F., & Enemark, S. (1994). *The Aalborg experiment: Project innovation in university education*. Aalborg, Denmark: Aalborg University Press.
- Knowles, M. S. (1975). *Self-directed learning: A guide for learners and teachers*. New York, NY: Association Press.
- Krogh, L. (2013). The Aalborg PBL model and employability. In L. B. Henriksen (Ed.), *What did you learn in the real world today: The case of practicum in university educations* (pp. 123-145). Aalborg, Denmark: Aalborg University Press.
- Krogh, L., & Jensen, A. A. (Eds.). (2013). *Visions, challenges and strategies: PBL principles and methodologies in a Danish and global perspective*. Aalborg, Denmark: Aalborg University Press.
- Krogh, L., Stentoft, D., Emmersen, J., & Musaeus, P. (2013). Case-baseret undervisning. In L. Rienecker, P. Stray Jørgensen, J. Dolin, & G. H. Ingerslev (Eds.), *Universitetspædagogik*. København, Denmark: Samfundslitteratur.
- Laursen, E. (2013). PPBL: A flexible model addressing the problems of transfer. In L. Krogh & A. A. Jensen (Eds.), *Visions, challenges and strategies: PBL principles and methodologies in a Danish and global perspective* (pp. 29-45). Aalborg, Denmark: Aalborg University Press.
- Lederer, B., & Raban, R. (2001). Autonomy, uncertainty and peer learning in IT project work. In D. Boud, R. Cohen, & J. Sampson (Eds.), *Peer learning in higher education: Learning from & with each other*. London, England: Kogan Page.
- Liedtka, J., & Mintzberg, H. (2006). Time for design. *Design Management Review*, 17(2), 10-18.
- Lundvall, B. Å., Rasmussen, P., & Lorenz, E. (2008). Education in the learning economy: A European perspective. *Policy Futures in Education*, 6, 681-700.
- Mezirow, J. (1997). Transformative learning: Theory to practice. *New Directions for Adult and Continuing Education*, 1997(74), 5-12.
- Moravec, J. W. (2008). *Towards society 3.0: A new paradigm for 21st century education*. Minneapolis: University of Minnesota.
- Moravec, J. W. (Ed.). (2014). *Knowmad society*. San Bernardino, CA: Education Futures.
- Mowles, C., Stacey, R., & Griffin, D. (2008). What contribution can insights from the complexity sciences make to the theory and practice of development management? *Journal of International Development*, 20, 804-820.
- Nanney, B. (2004). *Student-centered learning*. Retrieved from <http://ollysofalhaj.ipgkti.edu.my/sumber/resosbestari/PENDEKATAN/sci/7%20SCL-Nanney.pdf>
- Piaget, J. (1954). *The construction of reality in the child*. New York, NY: Basic Books.
- Ramsden, P. (2003). *Learning to teach in higher education*. London, England: Routledge Falmer.
- Ravn, I. (2007). The learning conferences. *Journal of European Industrial Training*, 31, 212-222.
- Rogers, C. (1983). *Freedom to learn for the 80's*. New York, NY: Merrill.
- Sampson, J., & Cohen, R. (2001). Designing peer learning. In D. Boud, R. Cohen, & J. Sampson (Eds.), *Peer learning in higher education: Learning from & with each other*. London, England: Kogan Page.
- Shaw, P. (2002). *Changing conversations in organizations: A complexity approach to change*. London, England: Routledge.
- Shaw, P. (2005). Conversational inquiry as an approach to organisation development. *Journal of Innovative Management*, Fall, 19-22.
- Stacey, R. D. (2003). Learning as an activity of interdependent people. *The Learning Organization*, 10, 325-331.
- Stacey, R. D. (2007). *Strategic management and organizational dynamics*. Essex, UK: Pearson Education.
- Thomsen, J. P. (2007). Senmodernitetens universitetsstuderende? [The university students of late modernity?]. *Dansk Universitetspædagogisk Tidsskrift*, 2(4), 4-11.
- Vygotsky, L. S. (1978). *Mind in society: The development of higher psychological-processes*. Cambridge, MA: Harvard University Press.
- Wilson, J. T. (2001). Project management teams: A model of best practice in design. In D. Boud, R. Cohen, & J. Sampson (Eds.), *Peer learning in higher education: Learning from & with each other*. London, England: Kogan Page.
- Ziehe, T. (1989). *Ambivalenser og Mangfoldighed* [Ambivalency and diversity]. Copenhagen, Denmark: Politisk Revy.

Author Biographies

Ann-Merete Iversen, MA, is an associate professor at University College of North Denmark. Her research interests include complexity and innovation in higher education and profession, and co-creation processes in teaching and profession.

Anni Stavnskær Pedersen, MA, is an associate professor at University College of North Denmark. Her research interests include didactic development of professional higher education, development of innovative, and transferability competence in students.

Lone Krogh is an associate professor at the Department of Learning and Philosophy, Aalborg University. Her research interests include higher education development: internationalization, policies, teaching and learning processes, problem-based teaching and learning, and assessment in higher education.

Annie Aarup Jensen, MA, PhD, is an associate professor at Department of Learning and Philosophy, Aalborg University. Her research interests include problem-oriented and student-centered learning processes in higher education and cultural conditions for teaching and learning.