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IT-pedagogical Think Tank for Teacher-teams in Global Classroom
- A Model for Continuous Competence Development with a Focus on Reflection, Innovation,
Motivation and Engagement

Extended Abstract

PhD Project

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Keywords: Keywords: pedagogical innovation, competence development in teams, knowledge exchange, anchoring of knowledge, Motivational competence development.

Conference theme: Relationships between Virtual spaces and Learning places.

The IT pedagogical think tank for teacher-teams (ITP4T) is the first version of a "continuous competence development model". The purpose of this model is to provide teachers and educational organizations with a reflective tool that enables them to create pedagogical innovation in an on-going and structured way. The teachers continuously create new results through this new practice in regard to the learning design and the use of educational technology based on issues, wishes and visions of the teachers as well as the organization. The model is a response to the needs and challenges the teachers and organization at VUC's Global Classroom are met by when having to be pedagogical innovators, being able to take new educational technology into use and change learning designs accordingly (Collins & Halverson 2010). The reflective tool should also create qualified and motivational learning for the students (Hutters et al. 2013). ITP4T answers the need for teachers to have the possibility to access sustainable competence development in their busy lives, taking outset in their daily problems and with team-support in their teaching environment (Dede et al. 2009). The findings were, that it was possible to establish an agile on-going practice, enabling the teacher-team to reflect, innovate and create new solutions for the constantly occurring It-pedagogical issues on a theoretical and practical level in a way that empowers, engages and motivates the teachers in their daily working life.

Research question and method

The model is developed as part of a PhD-project focusing on: "How can you design innovative methods, practices and evaluation tools in relation to the use of IT in Global Classroom settings, with a focus on how to enable teachers to create motivating and qualified learning design for the students." The case-organization VUC Storstrøm, an adult learning center in Denmark, is applying the concept Global Classroom - a hybrid virtual and campus videoconference concept to an upper secondary general education program - a full time education lasting 2 years. The teachers in Global Classroom are on new territory when teaching in this hybrid form. In order to develop the project in a way that makes it relevant for the educational organization, the research takes place as a combined design based research (DBR) and action research (AR) study, using the best and most

meaningful approaches from both (Majgaard, Misfeldt & Nielsen 2011, Susman & Evered 1978). The research approach is thus contingent on the particular situation, develops the capacity of the members to be able to solve their own problems, and also aims on developing better innovative learning processes that involves digital technology. After the diagnosing and action planning phases (Weitze, Ørngreen & Levinsen 2013) the research is proceeding to step 4 and 5 in AR: taking action and evaluating the process through a user centered and participatory approach (Susman & Evered 1978). The research has used qualitative methods to investigate how the AR and DBR competence development experiments were answering the research question. This included audio and videotaped utterances and observations, particularly of the 3 teachers and the management, taking place in the described workshops, but also from many other formal and informal meetings.

In fall 2013 three teachers from the Global Classroom participated in a competence development project lasting 8 weeks. The project was designed as two parallel movements: 1) An series of competence development workshops: The teachers participated in a "reflective and pedagogical, innovative, competency development education" as a first iteration in the DBR approach designed to answer the issues and needs expressed by the Global Classroom teachers in the earlier part of the research project (Weitze et al., 2013). The first 4 lessons the researcher was responsible for leading the workshops and the last 4 lessons the teachers themselves took over the competence development and the researcher participated as a facilitator and debater on the side.

2) A DBR research project: at the workshops the discussions and experiences concerning how to structure the innovative reflective pedagogical process and procedure was heavily discussed and reflected upon, and between the workshops the researcher evaluated the utterances and observations refining the model. The approach was participatory and iterative, working through the issues from Global Classroom. The teachers worked on their own between the workshops. The researchers active way of participating in the workshops of course calls for attention on her role, with danger of biasing the research, but at the same time making it possible to observe, analyze, bring up new

Results and Theoretical framework

In the following I will try to give a very brief overview of the ITP4T model and some of it's theoretical foundations. The teachers have contributed to the model by initially describing the problematic issues, by working in the suggested new practices and by reflecting on the different parts and iterations of the model, thus qualifying the model by participating in the design process.

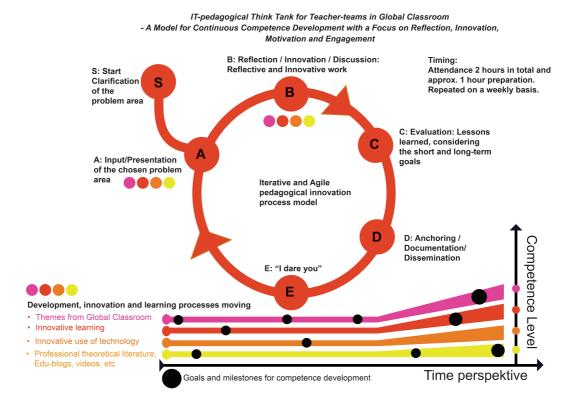


Figure 1. IT-pedagogical Think Tank for Teacher-teams (ITP4T).

The practice consists of a weekly two hour meeting, where the teacher team work through a meaningful and structured progression consisting of (figure 1): S) Clarification of the problem area from research, brainstorming sessions etc. A) Input/Presentation of the chosen problem area by the team leader of the day (possible discussion areas see below) B) Reflection/Innovation/ Discussion (central part) Reflective and innovative work inspired by Dale (1998) and Darsø (2011). The teachers are working at Dales third level of competence (professional teachers), where they discuss issues that have a comprehensive character and analyze them from a theoretical viewpoint. They use the innovative pedagogical roles from Lotte Darsø's Innovation Diamond to conceptualize the pedagogical innovative space. C) Evaluation: Lessons learned, considering short-term and longterm goals as well as new goals. **D)** Anchoring/Documentation/Dissemination: For the benefit of memorization and common conceptualization of the points and solutions, knowledge sharing is taking place in a structured way on a platform that is available to all teachers and the organization, thereby letting everyone participate in creating and using the new knowledge. **E)** "I dare you": - the team settles on a fixed task for next weeks meeting, feeding the next discussion. It is important that some of the tasks consist of making qualified and motivating experiments in the class - which is subsequently discussed. Discussion areas: 1) Themes from Global Classroom 2) Innovative learning design 3) Innovative use of technology 4) Professional theoretical literature, Edu-blogs, videos, etc. The model differs from traditional teacher teams because of the specific innovative and reflective focus (Tinglef, 2012). The managers interest and support for the team is crucial in the ITP4T model when creating a new working method within the organization which empowers and motivates the teachers to create visions, make demands and act through pedagogical innovation in teacher teams.

Final Thoughts

The ITP4T model emerged as a result of the workshops and the teachers' active participation. Every point in the model, as well as the organizational context and the structured way it is used in is an answer to a part of the research question. In the beginning, when taking the new practices in the ITP4T model into use, the teachers will take on different roles, - but what are new practices other than an initial role-playing? The ITP4T model has resemblances with *Scrum* (Schwaber, 1997). The fact, that the software industry has realized that the success of software development often is dependent on agility and the ability to be able to change fast in new directions given the big innovations taking place in the IT-area, has in many cases been solved by working in scrum-teams. Scrum-teams are breaking down tasks and collaborating in a structured way to make the best solutions in the actual situation instead of making long lasting plans. Since educational software is developing with the same speed it might be worth considering working in the same agile and iterative way when innovating learning designs and integrating educational technology.

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