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Local Action Plan: Linköping

1. Participating Institutions:

This local action plan covers the collaboration between the municipality of Linköping and the initial teacher education at Linköping university in the framework of Recite. Some of the described activities involve other school organisers as well.

2. Introduction

The Recite project in Linköping is conducted in close cooperation with ULF (“Utveckling, lärande, forskning”), the Swedish national programme for practice-based educational research that has a similar focus. The models and activities described in this action plan are therefore simultaneously part of the ULF programme and the action plan is closely linked to the ULF project plan.

The purpose of the outlined activities is to try out formats for practice-based research that are characterised by a close, sustainable, and well-functioning collaboration between university, school authorities and individual schools in the region. Conducted research should be based on issues and questions identified in educational practice.

The objective is to develop models where research, school development, in-service training, and initial teacher education are linked together in different ways. This requires new arenas for dialogue between stakeholders and it calls for research practices and the different roles in research to be partially re-defined. The aim is to create a platform for practice-based research where the educational practices from schools and university come together to develop a new kind of practice-based research culture.

So far, two models have been developed. Model 1 builds on existing structures for cooperation between universities and municipalities at management level. In this model, management from different schools and municipalities first jointly identify areas where further knowledge needs to be developed, and they then turn to researchers with adequate backgrounds and competences whom they invite into the project.

The second model is directed towards individual schools. The aim is to conduct smaller-scale activities at a singular school. In this model, a group of staff from the school and a researcher from the university together select a suitable area for research

and development and then conduct a small project, e.g., an action research project, in close cooperation between the teachers and the researcher.

The two models are intended as complementary efforts since they are placed at different levels of the organisation. The first model uses as its point of departure the needs for research and development as perceived by the school organisers. The second model is more closely related to every-day practice and addresses issues identified by teachers in their own professional experience.

To support these models, different supportive structures will be established, focusing on local dissemination at the university and at schools of the region, arranging physical as well as digital arenas for teachers and researchers to meet, collaboration between schools and initial teacher education programmes with regard to practice-based theses, offering seminars on practice-based research, and creating dissemination channels for obtained research results.

3. Two Models for Collaboration

Model 1:

The idea behind the first model is to create a structure that supports qualified practice-based research based on common needs of schools at an aggregated level. The model comprises 7 stages:

Stage 1: selection of topic and establishing frames for the project.

The first stage is set up to select the research area and the participating municipalities or school organisers. The point of departure should be existing needs and issues as perceived by the schools and the process includes the following steps:

1. Based on the existing quality assurance programme, each municipality selects two areas that would support their school development.
2. The project manager at the university collects the received proposals and organises them into possible research areas.
3. The compilation of research areas is sent to members of the management network who will have the opportunity to discuss the proposals at their local municipality level.
4. The research areas are discussed in the regional school leader network where the university is represented as well. The network decides on prioritised research areas (one or several depending on the number of projects to be started). The joint decision on areas of interest is supposed to secure the interest of stakeholders all over the region even if each project will be carried out only at a limited number of schools and in just one or a few municipalities.

5. The school leaders report back to their local authorities and discuss whether their municipality wants to participate. The respective municipality notifies the project manager at the university.
6. If the number of interested municipalities is too large the regional school-leader network will decide who can participate at each particular occasion.

Stage 2: Electing a researcher to manage the project

1. The project team announces a position as research manager for the project, allocating 30% of a full-time position for a period of two years.
2. Based on received applications the project team proposes a candidate for the position and presents their proposal to the school leader network to secure the network's approval of the candidate.
3. The faculty board for educational sciences formally appoints the research manager and decides on the funding of the project. The appointed person can choose to share the allocated working days with other researchers at the university.

Stage 3: Definition of research area and formulation of research question

It is crucial that teachers are involved from the beginning of this stage. The actual research team cannot be formed until the scope of the project has been preliminary defined, but it is still important that teacher representatives are allowed to weigh in on the preparations.

1. The researchers meet with representatives from the municipalities and schools to be involved in the project to discuss a preliminary delimitation of the research area.
2. A research team is formed, comprising researchers, school-based teachers, possibly other members of staff, and, if feasible, student teachers. Participants from the schools are selected based on their competence and experience. Participating teachers are expected to allocate 20% of a full-time position over a period of two years. Their working days are to be financed by the respective schools or municipalities.
3. The first step for the research team is to gain a common picture of the issues at hand, using previous research and discussing its implications, whereafter the research questions are formulated.

Stage 4: establishing the research design.

The research team decides on a research design appropriate for the research questions. At this point, the university-based researchers carry the main responsibility since they have the greater methodological competence. Different design possibilities should

however be discussed in the team before a decision is made. The possibility of involving student teachers who can conduct some of the practice-based research for their final theses should be considered.

Stage 5: Carrying out the research

The research will be carried out based on the defined design and within the framework of ULF. The research team is encouraged to involve students working on their final thesis. The whole team, based on their individual professional competence, should be actively involved in carrying out the research and analysing the results.

Stage 6: Dissemination

The results will be published in academic journals and in popular science magazines, e.g., Venue, a web-based journal published by LiU that targets in-service teachers. There will also be seminars for researchers and teachers on the studied issues. Another dissemination opportunity is the established school leaders' conferences and conferences for other teachers in leadership roles. The project team will also share their experiences with the University of Karlstad and the other members of the national ULF project.

Stage 7: Documentation and evaluation

The research manager from LiU is responsible for the documentation of the process and its results. The project manager of ULF, in cooperation with the project group, documents and evaluates the general model.

Model 2: School-based projects

The purpose of these activities is to conduct research projects in close cooperation with in-service teachers. These projects will usually last for one year and use methods that are suitable for working together with in-service teachers, e.g. action research.

Initially, model 2 has focused mainly on the university school for the lower grades due to a prioritised effort to strengthen the link to research for the corresponding initial teacher training programmes. The model should now be opened up towards other school forms, including pre-school and adult education. For this reason, this model will contain two separate tracks, the first of which is oriented towards university schools whereas the second track is open to all schools in the region. The first track comprises the following steps:

1. The ULF project manager informs about model 2 in the collaboration group for university schools where municipalities and the university are represented. The model is discussed in the group and information is also sent out in writing.
2. School leaders look into the needs at their own schools and send in their expression of interest.

3. The ULF project manager collects the expressions of interest. Three schools will be selected each year. Priorities will be discussed with the school leadership network.
4. A research position of 10% for one year is announced for each project.
5. The researcher and the teacher team of each project jointly define the research area and develop a project plan, in most cases including different forms of action research, where the research is conducted in a cyclical process in close collaboration between researchers and school-based teachers.
6. Results will be disseminated through seminars and articles.
7. The project is documented by the researcher. The ULF-project manager follows the process.

Students doing an internship at the school could, if involved, be an asset to the project. Student teachers at LiU generally write a final thesis consisting of two parts – or two final theses, if you will: a research overview and a short research study. The research overview could cover an area of knowledge essential to the project and the empirical study itself could be sub-study on the area for development chosen by the school. The students could also participate as co-researchers on similar conditions as the teachers and the researcher.

The second track will be based on individual contacts between schools and researchers. Different structures to help schools and researchers to form these connections will be developed and tried out during 2020-2021 (see below.)

4. Supportive structures

Supportive structures will be put in place to spread information within the university and at schools in the region, to establish digital and physical meeting places for teachers and researchers, work with schools and course tutors at the university concerning practice-related student theses, conduct seminars on practice-based research, and create arenas for dissemination.

Meeting places for researchers and teachers

LiU is working on a web-based platform where researchers can publish their profiles with a description of their research interests. The webpage will be searchable for different topics (e.g. assessment; mathematics; reading and writing skills), in order to enable schools to find a researcher. There will also be structures for physical meetings where researchers and teachers can interact, for instance pedagogical cafés. In addition, a structure is needed for the schools to present their needs and issues. This could be done on the digital platform with specified deadlines when questions or

proposals can be submitted and then through a “broker” be directed at the appropriate researcher. These arenas will not necessarily only initiate new research, but they could also lead to the development of in-service training programmes if the suggested area of knowledge is already sufficiently researched.

Practice-based final theses

In the initial teacher education, all final theses are already related to teaching and learning. It is an aim of this project that future theses to an even larger extent will be derived from issues raised at schools. As mentioned above, each student writes two final theses that are usually closely interconnected. The first thesis is a research overview that can contribute knowledge requested by individual schools. The second thesis, based on the first one, is an empirical study that could be directly linked either to requests from the internship schools or to ongoing research projects.

Students at master’s level are usually also in-service teachers. It would be desirable for these teachers to choose a research question that is relevant for their own school and that could possibly also include other teachers. This will however have to be coordinated with the supervisors and course tutors at the university.

Seminars

A series of seminars on practice-based research for teacher educators and researchers has been launched and will continue in 2021. Topics include formulating research questions with in-service teachers, disseminating research results at schools, ethical considerations while researching your own practice and scientific writing in collaboration with in-service teachers.

The purpose of these seminars is to increase the level of awareness of practice-based research and in this way prepare more researchers to get involved in this kind of activities. In a next step, seminars that target both researchers and in-service teachers will be offered.

Parallel to these efforts a series of seminars for in-service teachers will be offered, focusing on scientific approach and a school on a scientific basis.

Arenas for dissemination

In order for the results to benefit schools a recurring conference will be established where results from practice-based research and school development projects can be shared with stakeholders in the region and beyond. A possible way forward is to build on existing conference structures currently used for school leaders and other teachers

in leadership roles. Further options are thematic seminars and dissemination through scientific and popular-science articles.

5. Current Activities

Model 1

Model 1 was first launched in the spring of 2019. Two research projects, one on digitization and one on leadership started planning in 2019 and started the research activities in 2020.

Leadership for learning

The municipalities Norrköping, Mjölby and Söderköping are part of the project. Professor Marcus Samuelsson is the lead researcher, and Dr Anja Thorsten participates as researcher. Eight teachers from different schools participate as co-researchers. The project is expected to conclude in December 2021.

Digitization

The municipalities Motala and Linköping participate in the project. Dr Linnéa Stenliden functions as the lead researcher and Anna Martin Bylund is an additional researcher. Five school-based teachers and two other staff members take part as co-researchers. This project will end in December 2021 as well.

Model 2

Municipality of Söderköping, Brobyskolan Söderköpings kommun, Brobyskolan, leisure time center: Lead researcher is Dr Helene Elfstrand. Focus lies on the pedagogical core of the leisure time center.

Municipality of Kinda, Rimforsa skola, leisure time center: Lead researcher is Dr Helene Elfstrand. The project is in the initial phase of formulating an action plan.

Municipality of Norrköping, Sandbyängskolan: Lead researchers are Joakim Samuelsson and Pether Sundström: teaching and learning mathematical concepts.

Norrköpings kommun, Bjärbyskolan; teaching and learning mathematics. Lead researchers are Joakim Samuelsson and Pether Sundström.

Municipality of Linköping, Kärna skola. Lead researchers Joakim Samuelsson and Pether Sundström: teaching and learning mathematics. Action research; Learning Study; teachers have selected one learning object and they have planned lessons. Reserachers participate as support and for the analysis of classes.

Municipality of Linköping Ekkälleskolan. Lead researchers Joakim Samuelsson and Pether Sundström: teaching and learning mathematics. Combinations of numbers. Currently an intervention is carried out where different methods are tested and evaluated.

Upcoming Activities:

Model 1:

Pre-school: Language aquisition in a multicultural pre-school. Norrköping, Motala and Finspång take part in the project. Lead researchers are Professor Maria Simonsson and Professor Asta Cekaite. Six teachers will participate as co-researchers. Preparatory meetings have been held. Research activities will start in January 2021.

Model 2:

Rimforsa skola, F-6, Kinda kommun: English Teaching. Lead researcher is Dr Maritha Johansson. Project begins in January 2021.

Svärtinge Skogsbacke skola, F-5, Norrköping: Visual learning and good learning environments. Research leader is Dr Anders Jidesjö and the project will start in January 2021.

Hagagymnasiet, Norrköping: Assessment. Lead researcher is Håkan Löfgren; the project will start in January 2021.

Pre-school Vidingsjö, Municipality of Linköping: Mathematics at pre-school. Lead researcher Dr is Anders Albinsson and the project started at the end of 2020.

Pre-school Dalen, Municipality of Boxholm: forms of collaborations in teams. Ann-Marie Markström and Maria Simonsson, started in the autumn of 2020.

Birgittaskolan, Municipality of Linköping: Swedish for immigrants. Lead researcher Prof. Andreas Fejes. Start: January 2021.

Teacher education:

- A pilot project between Linköping university and the municipality of Linköping has been launched in 2020 where in-service teachers and student teachers conduct a joint learning study, as part of the curriculum for the students and as an in-service training programme for the teachers. The project is managed by Anja Thorsten och Henrik Lindqvist from the university; Patrik Landström och Lina Rahm from the municipality. The aim is to make this a regular part of the study programme.
- Models are also being developed to help students find practice-based research question for their final theses.

Digital platform

Prof. Katarina Eriksson-Barajas is working on a digital platform for contact between university and schools.

Future Activities:

The independent schools of the region have been specifically invited to send in their expressions of interest for model 2 projects. This will probably generate one or two further projects.

Currently, it is uncertain if the national funding for this collaborative practice-based research will continue. The university and the municipalities have the intention to continue the work regardless, even though the number of projects that can be carried out depends on the external funding.

With national funding, the aim would be:

- One model-1 project each year
- Six model-2 projects each year

Without national funding, the aim would be:

- One model-1 project every second year
- Three model-2 projects each year.

6. Collaboration

Both models draw to some extent on existing models for collaboration. Pedagogical needs defined by the schools decide what kind of research will be conducted. The dialogue takes place on different levels, either on a management level (Model 1) or directly between participating researchers and in-service teachers (Model 2). The local

management level, however, is important for the second model as well, in enabling the teachers to participate and also for the decision on local areas of focus.

The municipalities as school organisers will be involved throughout the entire process, participating in discussions on project plans as well as in regular follow-up meetings, using the existing regional school leader network and the school collaboration network of the university. A further step will be to involve the privately run “independent schools” (“friskolor”) as well.

Both models are based on a collaboration between equal partners even though each partner has a different role. The ideal is the notion of a transformative partnership where both partners develop their practices through the collaboration.

Experiences from other higher education institutions as well as relevant research will give important input for the continuous development of these models.

7. Sustainability

Since both models build on partially established structures that will be further developed, they can be assumed to be sustainable.

The involvement of staff members at both the university and schools from the entire region is important. Course tutors and researchers at the university as well as school leaders will be invited to actively participate in any discussion about the project.

Another aspect of importance for the strength and sustainability is the transparency of the different stages in the model. There needs to be a clear timeline as to when different actions should be taken.

Both models are based on a real collaboration between school-based teachers and university researchers, to some extent also student teachers. This means that current developmental work regarding cultures of knowledge and research practices should permeate the different actions of the project, in order not to only use established ways of working and thinking. The models are based on the assumption that collaboration is essential in all parts of the project, from the formulation of the research question to the dissemination and utilisation of the results. All school districts of the region should be able to participate.

The models will be continuously evaluated, both at national level, as part of the ULF project and in form of local evaluations from the perspectives of all different stakeholders.