

Modelling instructional planning skills and developing a questionnaire for their investigation

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SUMMARY

Instructional planning is one of the most essential skills needed for professional teaching. It calls for significant theoretical as well as for practical knowledge. However, uncovering of strategies, models and skills that teachers use when planning instruction or lessons has turned out to be a rather difficult task for researchers. One of the main reasons is the complicated nature of the planning process itself. It means that teachers do not follow similar models when planning and real classroom interaction is often unpredictable and therefore fully not planned (Yinger & Hendrics-Lee, 1998). This is the reason why practice of written lesson plans is not common for experienced teachers (Kansanen, 1981). Planning frames the broad outlines of what is possible or likely to occur when teaching but once interaction begins, planning moves to the background and instructional improvisation becomes more important (Yinger & Hendrics-Lee, 1998).

The aim of the present study was to develop a reliable method and a data collection instrument for investigating teachers' instructional planning skills in Estonian school conditions. Investigation of the differences between beginning and experienced teachers will create opportunities to support student teachers' instructional planning skills. The authors define instructional planning from two aspects (Clark & Yinger, 1987): firstly, from temporal aspect, which allows us to see planning from the perspectives of short-term and long-term planning. Short-term planning includes daily planning for every lesson and long-term planning indicates planning for a year, i.e. for a course as a whole. Secondly, we recourse on an idea, that planning is also concerned with setting up the physical environment and establishing the social system of the classroom.

But in order to develop a questionnaire, as a data collection instrument, a theoretical framework had to be proposed. There are many different ways to explain and model instructional planning as a process. One possible way

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to define it is to differentiate three phases in teachers' work – instructional planning, implementation and evaluation. In addition to these three phases it is possible to draw on different theoretical instructional models that many researchers have proposed. These help teachers to plan lessons and see the instructional process as a whole. In last few decades, researchers have used teachers' practical knowledge as a main theoretical conception for investigating teachers' knowledge, skills and therefore also instructional planning. The conception of teacher practical knowledge helps to describe what teachers think and know about their subject and how they modify this knowledge into real classroom activities. Therefore, in order to identify instructional planning as a process, we used three major theoretical conceptions – three phases of teacher instruction (Eggen & Kauchak, 2013), model of five primary tasks of instruction proposed by Gage and Berliner (1998) and teachers' practical knowledge (Meijer, Verloop, & Beijaard, 1999).

According to the conception of three phases of instruction, the first phase that teacher has to take into consideration is instructional planning. It is followed by phases of implementation and evaluation (Eggen & Kauchak, 2013). Besides evaluating students, the latter phase also includes teacher reflection on one's own practice. But in order to understand instructional planning as a process in more detail, we relied also on Gage and Berliner's (1998) model of five primary tasks of instruction, that suggest teacher to a) choose objectives, b) understand student characteristics, c) understand and use ideas about the nature of learning and motivation, d) select and use ways of teaching (methods, strategies) and e) evaluate student learning. This model helps to uncover all the primary knowledge and skills needed for instruction and it is also suitable for daily planning as well as for long-term planning. Since in real classroom instruction the task of choosing objectives follows after evaluation procedure, this model describes instruction as a cyclical process.

One step further in the process of defining instructional planning is to elaborate this conception through the notion of teacher practical knowledge. The merit of this conception stems from the point that it helps to understand the knowledge base that teachers need for instruction (Meijer et al., 1999). Although many different researchers have defined the teacher practical knowledge from various points of view and with various assumptions, we relied on Meijer and her colleagues definition (1999) that is based on a review of different studies of teachers' practical knowledge. They define practical knowledge „as the knowledge and beliefs that underlie his or her actions; this kind of knowledge is personal, related to context and content, often tacit, and based on (reflection on) experience” (p 60).

Teachers' practical knowledge consists of two type of knowledge (Schön, 1983): knowledge and beliefs on the one hand and interactive cognitions on the other hand. Knowledge and beliefs are defined as the frame of reference with

which practice is perceived and interactive cognitions are teachers' thoughts when teaching. Interactive cognitions are related to the actual behaviour of teachers, they link the knowledge and beliefs of teachers with teachers' actions. This relation is explained with two types of memory, the short- and long-term memory (Meijer, Verloop, & Beijaard, 2002). Knowledge and beliefs of teachers are stored in long-term memory, interactive cognitions are stored in short-term memory. Different instructional situations activate knowledge in long-term memory, which in turn activate this knowledge temporarily in short-term memory and therefore it's the basis for teacher actions. As regards to the three phases of instruction, teachers use practical knowledge differently in each phase (Krull & Raudsepp, 2010). In the phase of planning and evaluation, teachers use knowledge and beliefs that derive from theoretical and practical studies. In the phase of implementation dominate teachers' interactive cognitions that represent ready-to-use behavioural patterns.

In order to develop a theoretical model for instructional planning and to unfold its components, we combined the model of five primary tasks of instruction proposed by Gage and Berliner (1998) with the conception of teachers' practical knowledge that is presented in three phase of instruction. Reasons why we used these theoretical models are that firstly, the model proposed by Gage and Berliner allows to describe and systematize different knowledge areas needed for instructional planning. Secondly, using the conception of teachers' practical knowledge in a three phases of instruction gives Gage and Berliner's model more practical input, leading attention to the interconnectedness of these three phases.

As a result of defining the theoretical framework for instructional planning, a questionnaire was developed based on it. It comprises of five major topics: a) choosing objectives, b) understanding student characteristics, c) understanding and using ideas about the nature of learning and motivation, d) selecting and using ways of teaching (methods, strategies) and e) evaluating student learning. Every topic includes questions about three phases of instruction, since they are all connected. Furthermore, questions about planning include questions on short-term and long-term planning as well as planning for setting up the physical environment and establishing the social system of the classroom.

The questionnaire consists of questions on the respondents' background data and of 35 questions and issues of instructional planning. Questions about instructional planning are presented in the form of 5-point Likert-type scales where the subjects have to express how much they agree or disagree with a particular statement.

Keywords: instructional planning, modelling of instructional planning, teacher education, beginning and expert teachers