

USING LEARNING OBJECTIVES WHEN TEACHING IN CZECH PRIMARY SCHOOLS - FACT OR FICTION?

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Abstract/Povzetek The paper presents the findings of a multiple case study exploring the way primary school teachers work with learning objectives in social studies teaching. The study has shown that learning objectives do not occur in an explicit form in the Czech primary school teaching. While observing teaching and learning, implicit objectives did emerge – in the beginnings of lessons, during the lesson in the process of solving learning tasks, and most of all, in the evaluation processes including the final reflection. In many lessons, there were differences between the learning objectives, teaching methods and evaluation of pupils' learning.

Je uporaba učnih ciljev pri poučevanju v čeških osnovnih šolah dejstvo ali fikcija?

Članek predstavlja večstransko študijo primera, ki proučuje način, kako učitelji v osnovni šoli pri poučevanju družboslovnih predmetov delajo z učnimi cilji. Študija je pokazala, da se pri poučevanju v češki osnovni šoli učni cilji ne pojavljajo v eksplicitni obliki. Pri opazovanju pouka so se na začetku ure, med uro v postopku reševanja učnih nalog in najbolj v procesih evalvacije, vključno s končno refleksijo, pokazali implicitni cilji. Pri številnih urah so bile prisotne razlike med učnimi cilji, metodami poučevanja in evalvacijo učenja učencev.

Pupils' understanding of what they are supposed to learn and where the teaching activities are directed is generally considered one of the key prerequisites of quality learning, and the means by which they will know that they have a good grasp of the intended knowledge and skills (Bloom, Hastings & Madaus, 1971; Marzano & Kendall, 2008)

We were interested in how Czech teachers set learning objectives and how they work with them in class (see also Stará & Starý, 2018). We believe that the Czech education system has not yet been sufficiently empirically studied and that research with such an aim could yield useful knowledge to be used in the initial and further training for teachers. Based on our preliminary analysis of didactic materials used in teacher training by us and our colleagues from Faculties of Education in the Czech Republic, we note that in the Czech environment, the findings of influential international theories about setting objectives, aims and objectives are generally applied (Anderson & Krathwohl, 2001; Marzano & Kendall, 2007). It has not yet been studied how these approaches suit Czech teachers.

The main research method of our study was lesson observation, because in our opinion, it is necessary to know the reality of working with learning objectives in schools. This knowledge can later help to plan innovations in the education of teachers and their subsequent support, so that these can be based on the conditions and needs of practice and are therefore acknowledged as acceptable by the participants.

In this paper, we focus on primary school teachers and their teaching of social studies. Social studies in primary education (ISCED 1) are taught from the first to third grades in the integrated subject "Prvouka" and in the fourth and fifth grades, in the subject "Vlastivěda". "Prvouka" is devoted to both science education and social studies education. The hourly allowance for both components of this subject is usually two hours a week. In social studies at this stage of education, pupils learn to know the place where they live, to understand the roles of family members and the relationships between them, to have experience of cooperation with their classmates, to compare past and present, to use time specifications etc. "Vlastivěda" is a subject specific to social studies education. It is usually taught 2 or

3 hours a week and is dedicated to basic knowledge in the fields of geography and history, economics, civic education and cultural studies.

The motivation for the focus on primary social studies was that some curricular areas have a clear hierarchical structure, e.g. teaching mathematics or foreign languages, while in social studies, it is a broad horizontal arrangement. In social studies there are individual thematic units, more or less independent, and the relations between them are far from obvious and clear as in the subjects listed above. If the structure of mathematics as a science is similar all around the world, the concept of social studies is strongly culturally based. Working with learning objectives is therefore very important here because it gives a framework and meaning to the school curriculum. Thus, when setting learning objectives in social studies, the teachers have more freedom, which may be an advantage in one way, but a disadvantage in another. We believe that teachers need support when choosing appropriate learning objectives in social studies more urgently than in other parts of the curriculum (Levstik & Barton, 2011). We also followed on from the fact that in previous studies we noticed considerable variability not only among the learning objectives but also among the teachers' approaches to teaching social studies (Stará & Krčmářová, 2014; Stará & Starý, 2017).

Theoretical foundation

The aim of setting learning objectives in teaching is to give the learning process of pupils a clearer structure. If the learning objectives are to help pupils and fulfil the expected role, then pupils need to understand and identify with these. The objectives should therefore not be too narrowly defined, because then there is a risk of too great a focus on the learning objective, and in extreme cases it can have a negative effect such as "learning for the tests" (Marzano et al., 2001). The opposite extreme occurs when the objectives are too general. Adequate flexibility in constructing learning objectives is also important in order to provide pupils enough space for personalization, i.e. adapting the learning objectives to their needs and interests (Bandura & Schunk, 1981; Anderson & Krathwohl, 2001). One of the major risks is the unilateral focus of the learning objectives on cognitive knowledge

and the neglect of affective and psychomotor objectives, the significance of which becomes increasingly important in the long run (Marzano & Kendall, 2007).

Providing feedback is essentially connected to setting learning objectives because if it is not clear to the pupils what they are aiming for, they are unlikely to understand any information about their progress. Continuous feedback is a key element of formative assessment (William, 2011), and the positive effects of feedback on the learning process have been unequivocally demonstrated by research (Scheerens & Bosker, 1997; Torrance & Pryor, 2001; Chappuis, 2005; Marshall, 2011; Shepard et al., 2012). Setting learning objectives and giving feedback are mutually connected. Quality feedback cannot be provided without well-formulated learning objectives, and if the setting of objectives is not followed by giving feedback, the importance of learning objectives largely loses meaning (Hattie & Timperley, 2007; Chappuis & Chappuis, 2007; Cauley & McMillan, 2009). In addition, we do not see feedback as an activity belonging exclusively to the teacher. Previously, Wiggins (1993) has proved that pupils are able to effectively evaluate their peers' as well as their own progress in learning, and a clear emphasis on the formulation of learning objectives can provide good support for that (Clarke, 2005; Sebba et al., 2008; McTighe & O'Connor, 2005).

Methodology of the research

Aims of the research and research questions

The general aim of the research was to describe the way teachers think about learning objectives, what objectives they set in teaching, how they communicate these to the pupils and how they revisit these objectives in lessons. The research question was formulated as follows: *How do teachers in ISCED 1 level social studies work with learning objectives?*

Research methods

Given the aim of the essay, we decided to choose a qualitative research design. A case study was chosen as the research strategy, especially because it strives for a complex understanding of the studied phenomenon in a natural environment (Yin, 2009). According to Yin's classification, this is an exploratory case study, since the aim was not only to describe the studied phenomenon based on how it appears in the observation, but also, through in-depth interviews, to obtain data on how teachers and pupils understand the phenomenon (Yin, 2009). Data analysis thus led to the search for "predicted causal relationships".

Cases and their selection

Individual cases for us were the different approaches by teachers to working with learning objectives in their lessons. We worked on the theoretical assumption that the approach to teaching is relatively consistent for the teachers (Fenstermacher & Soltis, 2008).

We approached directors of our University faculty schools for primary education (ISCED 1) and selected teachers who suited the need to assemble a sufficiently diverse composition of research participants. The participants in the research were 10 primary school teachers. The teachers differed in the length of their practice, their work experience and the grade in which they worked (see Table 1).

Table 1: Characteristics of the teachers included in the study

Name of the teacher	Abbr.		Grade (taught)	Practice (number of years)	Master's Degree in teachers education
Lucy	L	A town with more than 1,000,000 inhabitants, a residential area	2.	15	yes
Sara	S	A town with more than 1,000,000 inhabitants, a residential area	3.	2	no
Eve	E	A town with more than 1,000,000 inhabitants, a residential area	5.	5	yes
Patricia	P	A town with more than 1,000,000 inhabitants, a housing estate	2.	12	yes
Bela	B	A town with more than 1,000,000 inhabitants, a housing estate	5.	15	yes
Cecilia	C	Satellite city	5.	12	yes
Fany	F	Satellite city	3.	12	yes
Jane	J	A town with less than 10,000 inhabitants	4.	7	yes
Susy	S	A town with less than 10,000 inhabitants	4.	10	yes
Mary	M	A town with less than 10,000 inhabitants	3.	3	yes

Methods and procedures of data collection

In order to comprehensively map out the issue of assessment at primary school, we used several methods of data collection, and we tried to obtain data “first-hand” in the field (see Bassey, 1999), i.e. in the classroom.

Data collection in this research consisted of several phases and methods of data collection:

- a) direct observation of pupils and teachers in classrooms using observation sheets, field notes, or audio and video recordings;
- b) in-depth, semi-structured individual interviews with the teachers;

c) content analysis of learning artefacts (e.g. pupils' notebooks, pupils' presentations, notes on the blackboard, didactic tests, self-assessment questionnaires or teacher's evaluation records).

Observation

Observation was always the first stage of data collection at every school. The teachers were asked to carry out their lessons in the usual manner and were told that the reason for our observation was our interest in teaching quality. The purpose of the observation was to record and describe all the ways of working with learning objectives that occur in the lesson. Since it was not always clear from the beginning whether the question asked, the outlined learning task, the situation in the classroom, etc. had something to do with the phenomena we wanted to observe, it was a wide-ranging observation – we tried to record on our observation sheets all of the teacher's and pupils' actions, the different activities, and we made notes on the class atmosphere, classroom space, etc. Lesson observation was at first descriptive, and after finishing the first series of observations, we analysed the collected data. In the process of reflecting on the data analysis, we asked questions about the structure, relationships and organization of the data. The second series of observations was more specialized. Video footage from this series of observations then allowed us to focus our observations on specific phenomena (e.g. content of the evaluating statements in peer assessment and self-assessment; specific wording of teachers when ending a lesson etc.). We observed 3-5 lessons for each teacher.

In the second phase of observation, we focused primarily on the way the teacher communicates to the pupils the learning objectives and content of the lesson, whether she comes back to the objectives during the lesson, and by its end, how she communicates the criteria for working on tasks and how she works with the criteria after the task was finished and evaluated, how the individual parts of the lesson are related to the established learning objective, which activities have an evaluative and feedback function and how these take place.

Gathering artefacts

Important products of pupils which corresponded with the main research question were identified during the observations, and we gathered and copied these--especially written notes, diagrams and pictures made by pupils and teachers. All instructional artefacts that were connected to the observation protocol were analysed altogether.

Interviews with the teachers

Another method we used was the semi-structured interview based on prepared topics and questions. The interviewer conducted the interview using a prepared scheme, but also referred to situations from the observed lessons. The interviews were conducted as standard, face-to-face sessions, lasting from 20 to 40 minutes. Feedback from the observed lessons and questions that arose were discussed with the teachers immediately after the class. These shorter interviews were not recorded on the Dictaphone; they took place in the corridors, during breaks, etc. However, they all later became part of the field notes.

Analysis of the data

Data analysis was carried out in the following steps:

- a) Systematization of data files and data transcription

All the data had been systematically saved and backed up. This way records of the observed lessons were available in photographs of notes on blackboards, examples of students' work, teachers' preparation for the lessons, field notes, etc. From those classes in which audio or video was taken at the same time, we also transcribed selected parts of lessons that we found crucial for answering the research question.

b) Data coding and categorization

A MAXQDA software program for qualitative analysis of data was used to encode, categorize and conceptualize data from the observations, and we used research procedures inspired by a grounded-theory approach. We carried out open coding as a first data organizer. So, we identified the units of meaning in the data and first named them with codes; then the codes were renamed, specified, merged, etc.

More general categories were created through the ongoing code hierarchization. The result was a coding system that was used for all the data that was obtained during the field work. The coding system served us mainly for orientation in large amounts of data.

The coding was followed by analysis and interpretation of each individual case (descriptive approach); then “cross-case” analysis was used (Yin, 2009, p. 156) to identify teachers’ approaches to learning objectives across cases, and to describe approaches that differed. Given the scope of this article, we cannot describe individual cases here; however, the resulting data from the cross-case analyses are presented in this article.

Research results

In the text, we will cite various data extracts, which will always be indicated by an abbreviation denoting the case, method of data collection and source of the data. Since individual cases are represented by individual teachers, the first letter will be the abbreviation of their name (see Table 1), the next letter indicates whether it is an interview (I), observation (O) or learning artefact/material (M).

Establishing the learning objectives and introducing them to the pupils

In our research, we did not really encounter a teacher communicating the learning objectives to the pupils in the sense of expected knowledge and skills. Two teachers gave relatively specific information about the intention of the lesson in some of their lessons, e.g.:

T: *What do these pictures have in common?*

P: *That they are printed.*

P: *That they help.*

T: *It really is true that in all these pictures, there is somebody helping the others. Today we will be talking about mutual help, about the perception of others. I would like you to try to perceive each other and for you to be able to think about how to help one another...* (SO)

It is clear from the interviews with the teachers that the term 'objective' is not unfamiliar to them, and they understand its meaning. They even admitted that objectives might be useful: *that I can just check off, or not, and the children too, of course it's clearer for them the more clearly they see what they are supposed to do, that way it's easier that they know: I'm done, I'm not done (...) the more clearly, the more specifically you tell them, the better it is then checked* (CI); they even showed a certain guilt about not having formulated learning objectives, or rather that they did not communicate these to the pupils: *well, I don't always set them, I admit that* (CI).

It is clear from the interviews that the teachers think about the objectives while planning the lesson and consider the needs and abilities of the pupils: *I ask myself, (...) where the average pupil should get to, and that's basically the goal* (FI). When choosing objectives, they refer to curriculum materials or textbooks: *I always choose from every chapter in the textbook what I want them to take away, to remember. What I think is important for them in the fifth grade. (...) Some minimal information content which I want them to remember* (EI). It seems that teachers usually think about learning objectives and are well aware of them, but they do not feel the need to write these down, e.g. in lesson preparation, nor to communicate them to pupils.

Although the lesson objectives were not communicated in the teaching we observed, in most lessons we noted that the teachers did communicate the topic of the lessons to the pupils and often even the methods and procedures of work: *Today we will deal with the Hussite wars. You will teach one another through group work.* (EO); *I don't tell them exactly the goals but more like the topic as such* (FI); *we always say what we will be doing that day in that subject, but I don't really formulate it exactly like, that I would say like, today I want you to learn this* (PI).

In some cases, the teachers deliberately do not communicate the objective and the content of the lesson to the pupils in order to stimulate curiosity and interest. They prepare various activities for the pupils, which end in revealing the topic, and this occurs at various phases of the lesson:

Thanks to bingo, you could find out what today's lesson will be about. What might we do now? (BO); What we will be doing today is a secret for now. I hope you will find out yourself. (BO).

Some of the teachers use a 'morning letter' to introduce pupils to the lesson content and the organization of the school day. Most of the letters are brief, usually refer only to the topics of lessons and do not inform the pupils about expected learning outcomes. Morning letters are usually displayed somewhere visible for the pupils throughout the day, so they serve as 'advanced organizers' (Marzano et al., 2001).

How learning objectives appear in lesson activities

As in the beginning of lessons, the learning objectives remain hidden even in the course of lessons; however, this does not mean that they are not present.

Since the specific objective of the lesson was usually not explicitly communicated, we can deduce what learning objectives the teachers followed only from the content of learning tasks used in the class. We learn about the topic of the lesson from the teachers' communication to the pupils and from their plans for the lesson (if the teachers do these), where the topic is often stated. None of the plans we acquired during fieldwork included clear learning objectives.

It is apparent from some of the lessons that although teachers do not tell pupils the specific objective of the lesson, they have it prepared and thought-out and give pupils learning tasks that are in line with their intentions. A single example will suffice: teacher Bela, who did not express the learning objectives in her lesson plans but wrote in notes such as: *Show how they got to it! Find the exact sentences that prove it (BM)*. From observation of that particular lesson, it became apparent that the teacher had the learning objective in mind and strove to ensure that all pupils achieved that skill.

Another example of connection between the learning objective (The pupil will give reasons why the invention was important), learning tasks and continuous assessment emerges from the dialogue of a teacher with a group of pupils:

Situation: Patricia is walking through the class offering support for the pupils to finish the task. The pupils sit in 'nests', and sometimes the teacher communicates with the group of pupils:

T: Well, write there why it was an important invention.

P: I'm glad that the hair dryer was invented.

T: Emma, you didn't write why you're glad, why it was good that it was invented... Write that down. Robin, you didn't write when it was invented... Yes, but you didn't write why it was an invention and why it was good...

P: I don't know why I'm glad that the Cadillac was invented...

P: We have a Skoda.

T: Have you got a Skoda? And are you glad to have it? Why?

P: So we can go on trips.

T: Well you can write it here that it's good that people could drive around and go on trips.

P: How should I write it?

T: Write it the way I'm saying it. (BO)

It is obvious that there are teachers who strive to have all pupils attain the learning objectives to the fullest extent possible (comp. mastery learning – Bloom, 1984; Guskey, 2007; Zimmerman & Dibenedetto, 2008).

However, in a greater number of lessons, we noted some tasks that did not directly relate to the learning objective or topic of the lesson or digressed from it significantly.

For example, in one lesson, the teacher told the pupils that they would focus on orientation in a map, but in the end, practicing that skill occupied only 5 minutes. In the remaining time, the pupils dealt with the topic of state symbols or state management. The lesson had an unclear structure (SO). Such lessons do not meet

the need for a clear connection between learning objectives and lesson activities (Marzano & Kendall, 2008).

How learning objectives are reflected in the evaluation process

Although the learning objectives were not explicitly expressed in the observed lessons, as mentioned before, the implicit objectives appear more clearly in evaluation processes than in the lesson activities. This is clearest when using criteria-based assessment, but for example, also when using immediate feedback and in final summaries and reflections.

Through evaluation processes, the teacher should find out whether and to what extent the learning objectives have been met. Evaluation processes should aim to assess what the teacher set as learning objectives for the lesson (e.g. Gavriel, 2013; Shavelson et al., 2008; comp. with concept of embedded assessment – in Shavelson et al. 2008). We can conclude from the analysis of these lessons that there are teachers who purposely point out the link between expected learning objectives and assessment. One of the observed teachers motivates her pupils to study by holding out the prospect of better marks and avoidance of failure: *If you pay attention in class, you will just revise it (knowledge about the Přemyslid princes) and will remember it and you'll get a good grade on the test (CO).*

Probably more suitable is the approach of teacher Eve, whose approach shows the value of the acquired knowledge; she emphasizes that it is self-evident that the pupils “need” to study, and she expects it. She points to the natural consequences of low work commitment and lack of effort and sometimes to the fact that the pupils can discover through the assessment what they have learned and what they should do for better results.

Some of the observed teachers work with certain criteria and the aim of the lesson on their mind and in the context of the currently taught curriculum with varying degrees of success, while others do not work with these concepts at all.

For example, Cecilia regularly puts into practice the speaking exercises from National History and Geography; we then observed in her lessons the use of criteria for task assignment: to create a presentation about John of Luxembourg. The pupils know the criteria in advance and then evaluate their classmates according to the agreed criteria. Lucy does not use criteria-based assessment and her interview showed that she did not understand what task assignment criteria were.

Some teachers sometimes evaluate knowledge or skills other than those that were at the core of the lesson. Most of these are verbal comments, which are not related to the core activities in terms of the studied subject curriculum (mainly National History and Geography), but they also focus on evaluation of so-called ‘soft skills’ or on the assessment of language phenomena. For example, in one pupil’s test, the teacher corrected the spelling mistakes and marked the work with a grade of 1; however, she took no account of incorrect answers from the subject matter perspective and left these uncorrected: e.g. *A plane is marked with brown colour on the map. Highlands are marked with light and dark colours (SM)*. Personal and social skills were also inadequately prioritized over subject knowledge and skills in some lessons:

T: Children, you worked very well in class (social studies), who would you praise?

P: Ivan, because he helped me a lot.

T: Great, Ivan then. Who else?

P: Mary, because she is really kind. (FO)

Such assessment certainly contributes to the long-term goal of building a good social atmosphere in the class, but it should also be complemented by an assessment of the knowledge and skills acquired.

How learning objectives emerge at the end of the lesson

Implicit learning objectives are also revealed in the final evaluation, summary or reflection. Four of the observed teachers try to summarize the curriculum and acquired knowledge and skills in most of their lessons:

T: What did we say? Why do we have rules? P: So everything's all right. P: So we could live in peace. P: So there are no injuries, (...) In today's lesson we did (names the activities). We have a rule that we have a break so we can rest, so let's take a break. (SO)

Some final evaluations are more focused on curriculum content, while others are more focused on the development of soft skills or on the level of interest and activity among the pupils.

The lessons often ended with a rapid feedback session, in which pupils expressed their thoughts about the lesson or the extent to which they mastered the curriculum (e.g. showed thumbs up, thumb horizontally or thumbs down). Any deeper discussion of what presented difficulties in the curriculum and what they should do to fix those problems, however, occurred only very rarely in the lessons we observed. In many lessons, the teachers did not do any summaries of or reflections on the lesson; according to them, this was because of the lack of time. Thus, their lessons usually had no clear summary or closure.

The final reflection is a demonstrably important prerequisite for embedding the learned content in the long-term memory of the pupils; for that reason, it is recommended as an important didactic principle (Walberg, 1999; Marzano et al., 2000; Cotton, 2001). In order for the final reflection to be included, the teacher has to manage the time well and adjust the course of the lesson so that there is enough time for reflection.

Discussion and conclusions

The main finding of our study was the fact that we encountered objectives mostly in the implicit form. Only rarely did we note explicit expression of learning objectives. Since the learning objectives remained unexpressed, the greatest research challenge was to identify them based on the indirect indications. Although the learning objectives were not communicated in the lessons, this does not mean that the teachers did not consider them. Even though the depth of thinking about learning objectives differed from one teacher to another, it can be stated that all of them had objectives for their lessons. We noticed differences in the level of

awareness of learning objectives, in the depth of thinking about the content of social studies class, and in the degree to which the teachers worked with objectives in planning for, realization of and reflection on their teaching.

The implicit objectives gradually emerged during analysis of our observations. It transpired at the beginning of lessons when communicating the plan, in the course of lessons while solving learning tasks and especially in evaluation processes, including final reflection. The learning objectives were most clearly evident when using criteria-based assessment.

Research has shown that if objectives, content and evaluation procedures are in agreement, this brings significant positive consequences for pupils' learning. On the other hand, in the case of a discrepancy between the objectives and learning activities, the pupils do not understand why they are doing them, what the purpose is and figuratively speaking, they get lost on their way to knowledge (Pasch et. al.1990).

By analysing the teacher's statements and the pupils' responses, we came to the conclusion that improving work with learning objectives has the potential to bring the pupils greater benefits from learning and to improve their overall education. But how do we improve this work with teachers? How can we encourage teachers to work systematically and to work with learning objectives in the lessons?

We believe that more emphasis in teacher education must be placed on understanding how explicit communication of learning objectives helps pupils in their learning. One way to motivate teachers in this area is through experiences where teachers play the role of pupils. Another possibility is working with best practice video sequences, from which it is clear how both pupils and teachers benefit from having the learning objectives explicitly set and how, at various stages of teaching, pupils and teachers relate to them. As will be mentioned below, more precise aims and outcomes in curriculum documents and textbooks can help significantly in this area.

The concept of working with learning objectives, as conceived in didactic materials used in pre-service teacher training in the Czech Republic, is based on influential international sources (see above) and it has not yet become standard practice in Czech primary schools, according to the research results. We consider it necessary to develop didactic initiatives and teacher education programs to better suit Czech teachers.

In any case, the quality of objectives and ways by which teachers worked with objectives were very diverse, and it seems necessary in this context to individualize support for teachers, which would help them to improve their work by incorporating learning objectives. It seems ideal to include monitoring by trained teachers who focus on didactics and in education courses or programs, as well as instituting internal (school) support for teachers (Hobson et al., 2015, p. 98). We consider it crucial to focus the support of teachers more on subject-specific phenomena (Janík et al., 2013). This is particularly needed in the field of social studies. This field has a relatively indistinct internal hierarchical structure. This was reflected in the discrepancy between learning objectives, lesson content and assessment practices in some lessons, as well as the less complex and preferred subjects of the teachers. Focusing support for teachers on the subject-didactic field is also crucial, especially in primary education. Teachers of primary school pupils teach a broad range of subjects, which places high demands on their subject and didactic knowledge across many disciplines. Of course, they cannot fully meet those demands (Stará & Krčmářová, 2014, p 107), and it could bring positive changes to offer individualized support to primary school teachers in the fields of didactics, which would connect teachers' practical experience and knowledge with a systematic outlook from experts in the field of didactics.

In our opinion, the findings of our research draw attention to the persistent gap between theoretical education of teachers and the practice of teaching in Czech primary schools. During in service training, teachers and future teachers are encouraged to explicitly set learning objectives and communicate these to the pupils, but in practice they more or less fail to do so.

As discussed above, some teachers are able to plan lesson activities and ensure that they are directed to acquiring important knowledge and skills, which the teachers have carefully prepared and thoughtfully selected. However, there are many teachers who are unable or unwilling to devote so much effort and energy to such lesson preparation, while some teachers may lack experience or adequate education. In our view, it would help these teachers to have a clearer definition of aims and outcomes in curriculum documents and/or textbooks (Knecht, Janík et al. 2008) and to mediate the experience of how to plan the lesson based on clear, realistic and meaningful learning objectives. This requirement should build on their experiences as well as their challenges and their strengths. Education should be based on a dialogue between theory and practice; in our opinion, this is the only way that can lead to acceptance and development of theoretical knowledge in the practice of Czech primary schools and thus to improvements in the quality of teaching.

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