

## **Teacher expectancies, teacher behaviour and students' participation in classroom discourse**

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### **Abstract**

There is a common consensus that students learn best through participation in rich and challenging classroom discourse. The aim of this study is to explore whether students viewed as weak by their teachers can productively participate in classroom discourse in literacy lessons. We used micro-ethnographic discourse analysis to analyze video recordings from literacy lessons at a Czech lower secondary school. We focused on two low-expectancy students, who participated in the classroom discourse in different ways. While the first one was passive and unproductive, the second one participated in productive interactions and autonomously helped to construct knowledge in the classroom. Our analysis shows that a student's way of participation in the classroom is influenced by their teacher's behaviour. We examine the relationship between the teacher's expectations and their behaviour so as to show that this relationship is stronger if the teacher focuses on the qualities of a student and weaker if the teacher focuses on their curricular aims.

### **Key words**

Teacher expectations; teacher behaviour; classroom discourse; participation; low-expectancy students

### **Introduction**

There are a number of studies which reveal the influence of teachers' expectancies on their students' achievements (Fischbach et al. 2013; Freiberger et al. 2012; Marsh & Köller 2004; Tiedeman 2000). Their results show that students whose skills are positively evaluated by teachers better gain better academic achievements. To an extent, this might be caused by the fact that teachers judge their students accurately and have realistic expectations of their achievements. Nonetheless, it has been known that a teacher's prophesy is eventually fulfilled (Jussim & Harber 2005) and that hence teachers' expectancies influence students' outcomes.

The research of Brophy and Good (1970) claims that the difference in students' academic achievement can be explained by the following mechanism of teachers' expectancies for their students: 1) teachers create differential expectancies for their students; 2) which leads to a different interaction with different students; 3) which is recognized by students who are motivated if the expectancies are high and unmotivated if they are low; 4) which in turn reaffirms the teachers' early expectancies. This mechanism has been known as the so called Pygmalion effect (Rosenthal & Jacobson 1968) and its key component is teacher differential behaviour (Babad 1993; Urhahne 2015) which functions as a mediator of the relationship between teachers' judgements and students' motivation.

The study of Brophy and Good (1970) has been confirmed by other questionnaire studies which have repeatedly shown that students perceive differences in their teachers' behaviour and react accordingly. These studies report how low-expectancy students feel refused by their teachers and their competence beliefs, motivation and aspirations weaken (Freiberger et al. 2012; Urhahne 2015; Walkey et al. 2013),

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which influences their actions. If, on the other hand, students feel that their teachers support them and remain in longer interactions with them - as is often the case with high-expectancy students according to Babad (1993) - they respond with increased effort and engagement (Urduan & Schoenfelder 2006).

In this study we examine interactions between two teachers and their low-expectancy students in order to show that the patterns of their interactions are considerably different. We examine the relationship between teachers' expectancies and behaviour and their influence on students' participation in classroom discourse. We consider the degree and quality of students' participation in classroom discourse to be significant as it directly influences their learning and hence their academic achievement as well.

### **Learning as participation in classroom discourse**

There is long and ongoing interest in student participation in classroom discourse. The theoretical basis of this interest is sociocultural theory, represented primarily by Vygotsky (1978). In his view, each mental function appears twice during a child's development – first on the social level (i.e. on the level of the child's interaction with others) and later on the individual level (on the level of internalized mental processes). Nonetheless, social development is caused by a child's interaction with others. Participation thus leads to internalization of what has previously been manifested only on the social level and what can now become intercognitive.

Vygotsky (1978) has in this way posited the idea of the close relationship between speech and thought. By way of demonstration, Sfard (2007; 2008) has in connection to this thought introduced the term *commognition* (which he understands to be a compound word for communication and cognition) to emphasize the close relationship of the phenomena. If the process of learning is examined via this perspective as a cognitive process then learning can be understood as a participation in a certain discourse. For example Lave (1993, pp. 5–6) claims that there is no such thing as learning per se. Instead, she proposes the existence of an ever-changing participation in culturally constructed realities of the everyday life. In accordance with these opinions, many scholars say that individuals who learn increase their understanding because they participate in interactive social situations (Melander & Sahlström 2009; Mercer 2008; Wortham 2001). It can therefore be said that if a student can participate in classroom discourse, use newly acquired information and do cognitive operations which were previously unavailable then there is learning (Sfard 2008).

However, this is not to say that any participation in discourse results in quality learning. Edwards and Mercer (1987) therefore pioneered the concept of *productive classroom interaction* which leads to the creation of a shared understanding vital for the learning process. Interactions of this kind tend to include co-construction of knowledge: the teacher does not speak with students to check the knowledge which they have but to motivate them to think. According to Reznitskaya and Gregory (2013, p. 118), classroom discourse in this understanding can work as an external arena in which students can hone their thinking skills.

### **Participation as a Product of Teacher-Student Interaction**

Empirical research studies have shown that the level of participation is not the same for all students (Author 2015; Kovalainen & Kumpulainen 2007; Myhill 2002). These studies also showed that there is a connection between participation and student achievement. The researches of Myhill (2002), Black (2004) and Hernandez-Martinez et al (2011) show that students with below-average academic results who are classified as low-expectancy tend to participate less in classroom discourse than their peers with better academic achievement. On the contrary, successful students participate more – they raise their hands and

answer teachers' questions more often. If the assumption holds that a higher level of participation leads to more effective learning, then a spiral is being produced – the successful ones participate more, thus they learn more, and thus they are even more successful.

There are two possible answers to the question of what causes differences in the levels of participation of students with different success rates at school. Both Seidel (2006) and Jurik et al (2013; 2014) saw the cause in differences in student characteristics: students who participated more in classroom talk showed better cognitive abilities, high inner motivation, and positive attitudes towards school.

A complementary perspective states that variations in participation levels are caused by the teacher's differential behaviour. As has been noted, teachers behave differently towards their students depending on how competent they consider them to be and how high expectations they have for them. Teachers remain in a prolonged interaction with high-expectancy students and provide them with more time to formulate or correct their answers (Brophy 1985; Brophy & Good 1970). High-expectancy students are praised more when their answers are correct and criticized less when they are incorrect (Brophy 1985; Cooper & Baron 1977). They are also provided with more emotional support (Babad 1993; 1998). The usual interpretation of these studies suggests that teachers' behaviour either increases (in the case of praise) or decreases (in the case of critique) students' motivation to participate in communication with teachers.

The above quoted studies have focused specifically on teachers' actions and their occurrence. Nonetheless, it is also important to examine two other points while researching student participation related to teachers' expectancies, especially because of the connected nature of thinking and speaking. First, attention should be paid to students' utterances in their communication with teachers. Second, research should not investigate solely quantitative variables (i.e. how often and for how long students speak) but also qualitative variables (i.e. what is the nature of their utterances). For student participation related to teacher expectancies varies not only in quantity but also in quality. Studies which focus on these subtler characteristics of students' participation are significantly rarer (Black 2004; Lefstein & Snell 2014; Wortham 2001).

According to Black (2004, pp. 36–37), teachers expose students that they consider less competent to *unproductive interaction* – they force these students into a monosyllabic, passive role. With students they perceive as competent, they tend to create and maintain *productive interaction*, which means that they contained verbal actions that appeared to create and maintain the shared understandings underpinning the learning process. Students then participate differently according to the opportunities created for them by their teachers. This differentiation of two types of interaction is in accordance with the concept of productive classroom interaction postulated by Edwards and Mercer (1987). In a similar vein, Black (2007) proved through micro-analysis of teacher-pupil discourses how differently a teacher communicates with students of differently ascribed competence. In her dialogue with the teacher Black (2007) searched for an explanation as to why a low achieving student is situated into unproductive interactions which were short, as her answers were interrupted by the teacher and her incorrect answers were quickly corrected. The teacher in question justified her communication with the student by time pressure (the teacher reasoned that it is difficult to lead a low ability student to a correct answer) and also by the need to tailor her communication to the student's abilities (as according to the teacher low-ability students need simple tasks). Black thus shows that the teacher's behaviour is influenced by her expectations and that she creates only such classroom discourse which provides the given student with limited opportunities for learning.

On the other hand, Lefstein and Snell (2014) examine a case of a teacher who tries in vain to involve a low-ability student into a discussion on an interpretation of a poem. Their case analysis is the very opposite of Black's as the teacher attempts to guide the student into a productive participation; however, the student's responses are fragmented and vague. The teacher's behaviour changes in an effort to create a productive participation which, however, does not occur.

### **Aim and questions addressed**

As has been already stated, there is a common consensus that children learn best through participation in rich and challenging classroom discourse, and all students should be encouraged to participate in such activities (Lefstein & Snell 2014, p. 135). A number of authors have postulated that the more a student participates in classroom discourse, the better the results. A low level of participation is perceived as disadvantageous, which is also the case of limiting a student to non-productive participation (e.g., see Black 2004; 2007; Hernandez-Martinez et al. 2011; Heyd-Metzuyanim 2013).

Studies have shown that high-expectancy students tend to participate more in classroom discourse than low-expectancy students. It is further known that academic achievement is tightly connected to teachers' expectation and their evaluation of a student's abilities. Consequently, a connection between a teacher's expectation and a student's participation in classroom discourse emerges which has been empirically confirmed (author 2015; Brophy & Good 1970). However, there have been very few qualitative studies which would examine in detail how students who are evaluated differently participate in classroom discourse. Some of these focus on students whose abilities are perceived as low and who fail to participate productively either because of limitations provided by a teacher (Black 2007) or in spite of a teacher's best efforts (Lefstein & Snell 2014).

The existing literature does not include studies on productive participation of students whose abilities are perceived as low. At this point it is possible to wonder whether teachers' estimation of such students is not accurate (Jussim & Harber 2005) and these pupils are not capable of productive participation because of their own limitations.

This study analyses the interaction of two teachers and their low-expectancy students. The first student meets an already well established pattern of low expectations leading to non-productive participation. The second student breaks the pattern as she is also low-expectancy student who nonetheless participates in classroom discourse productively. She can therefore be understood as an example which shows that even low-expectancy students can be productively involved in classroom discourse. Our aim is therefore to study in detail the teachers' interaction which in one case results in productive participation and in the other in non-productive participation.

In our study, we ask the following questions: (1) how do low expectations of teachers influence their participation with students? (2) which teacher behaviour influences whether a student's participation is productive or not?

### **Methods**

Data in this study were gathered as a part of research project which focuses on the study of classroom discourse in Czech lower secondary schools. Eight teachers participated in the project and their teaching was video-recorded between 2013 and 2015. Interviews with the teachers were also recorded and transcribed. For the purposes of this study we limit the pool of data to two teachers and their two students.

## **Participants**

This study scrutinizes the nature of communicative interactions in literature classes of Hana and Jonas. Both teachers volunteered to participate in the project after such a possibility was introduced as a form of further professional teacher development. We examined classes delivered by both teachers in the seventh grade (ISCED 2A) where they teach students of 13 and 14 years of age. In both cases the teachers work at public schools. Hana's classes were attended by 18 students while Jonas's classes by 21 students.

Hana is a female teacher of Czech language, Czech literature and Civics with 20 years of experience. Her school is located in a smaller town and is attended by children of middle class and working class background. No minority students attend Hana's school. Jonas is a male teacher of Czech language, Czech literature and Music with 8 years of experience. He works at a medium-sized school located at the outskirts of a city which is attended by children of middle class and working class background. Similarly to Hana's school, even Jonas's is not attended by minority students.

In this study we examine each of the teachers in their communication with one student from their classes: Hana communicates with a boy called Ruda and Jonas with a girl called Jana. These students were chosen for further investigation post-analysis and no special attention was paid to them during the data gathering period either from the teachers or from the researchers.

Ruda and Jana were chosen for analysis as students whom their teachers perceive as weak and do not expect them to reach good academic results. During our research, we distributed forms in which teachers expressed their expectations regarding further study prospects of all their students. Each teacher was to assess students in their classroom by answering the following question: "This student is predisposed to study at a university" with a number ranging from 1 (I completely agree) to 10 (I completely disagree).<sup>3</sup> Hana assessed Ruda with a nine while Jonas assessed Jana with a 7. In both cases, Ruda and Jana received the lowest score among their peers and were thus chosen as the least suitable candidates for higher education. Further, students also filled in a self-evaluation form on self-perceived study aptitude. They were to express their agreement with the following statement: "I'm a study type" with a number ranging from one (I completely agree) to five (I completely disagree). Ruda evaluated himself with a five while Jane with a four. It can therefore be concluded that both students are perceived as low achievers by their teachers and they both have a corresponding self-perception of their study abilities.

Ruda is 13 years old. His year-report states that he was evaluated with a three from Czech language and literature<sup>4</sup> which was the worst grade that Hana gave to a student in her class.<sup>5</sup> Ruda's parents are divorced and he lives with his sister and mother who works in a warehouse. Ruda thus comes from a working class background.

Jana is 13 years old and she was also evaluated with a three at the end of the sixth grade. Like Ruda, even Jana's grade was the lowest among all of her peers. Further similarities include a working class background and divorced parents. Jana lives with two sisters and her mother who is a shop assistant.

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<sup>3</sup> Currently, approximately 53 percent of high school students continue with their studies at universities.

<sup>4</sup> Both subjects are evaluated with one single grade.

<sup>5</sup> Students in the Czech Republic are evaluated on a numerical scale from one to five with one being the best grade and five the worst. Once a student receives a five in their year-report they are to repeat a whole year of studying.

## **Data**

We examine interactions recorded during literature classes which took place once a week. The recorded classes had a similar structure (but for small exception) in which an author or a work were introduced first and their theme second. Then the teacher and students read aloud selected excerpts which were interpreted either by students individually or in whole class discussions (or at times by both methods combined).

The literature classes were recorded on two cameras, one of which recorded the teacher while the other the students. A corpus of ten consequent classes (with each one lasting 45 minutes) was gathered in this way which enabled us to examine the continuity of interaction instead of separated utterances, for which Lemke (2000) and Wortham (2006) use the term speech trajectories. We could therefore scrutinize the nature of interactions that the teachers had with their students and observe their evolution. Unfortunately, neither of the pupils was present during all ten recorded classes due to illnesses and other reasons.

Each of the recorded classes became a starting point for an interview with the teacher who taught it. A researcher discussed selected passages from one recorded class with the teacher in order to examine the nature of recorded classroom discourse. As has been noted, we did not intend to specifically study the teachers' interactions with Ruda and Jana and hence no special attention was paid to these students in the interviews which were recorded on a voice recorder.

## **Data analysis**

The recorded classes and interviews were transcribed into transcripts which include all the important verbal communication between teachers and students along with noteworthy non-verbal communication. Nonetheless, as even this first step is selective and did not allow us to capture everything that occurred in the classroom, we understand the process of transcription to be a first step in our analysis.

Since our data corpus was large, we decided to structure it with the use of macro classroom discourse analysis (Snell & Lefstein 2011). In each recorded session we thus measured the time of each participant's communication (e.g. teacher and pupils). We identified different forms of classroom discourse (e.g. IRF structure, open discussion), types of teachers' questions (e.g. open-ended, closed-ended), types of students' responses (productive, non-productive) and different types of teachers feedback (e.g. feedback which verifies, feedback which prompts students to elaborate).<sup>6</sup>

During the next step we focused our analysis on the individual students. We timed their interactions and divided it into different types. This was done with Pimentel and McNeill's classification (2013) which distinguishes the following four stages: (1) No response (in which a student does not answer or admits to not knowing an answer); (2) Word/phrase; (3) Complete thought (a student's utterance resembles a sentence yet provides no explanation of a student's thinking); (4) Thought and reasoning (which resembles a sentence and includes an explanation of a student's thinking). For the purposes of this study we recognize the first two types of responses to be non-productive and the last two to be productive (Black 2004).

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<sup>6</sup> IRF script (Sinclair & Coulthard, 1975) is a sequence consisting of teacher *initiation*, student *response*, and teacher *follow up*.

This type of classification enabled us to recognize that even though Ruda and Jana share similar academic achievement, teacher expectations and self-evaluation, their participation in classroom discourse is markedly different. This realization is the reason why we decided to focus specifically on these two students who can both be characterized as low-expectancy students.

We further examined the types of interactions into which students entered (either with other students or with the teachers), the types of questions asked by the teachers and the types of feedback provided by the teachers. The next step in our analysis was a micro-analysis of classroom discourse. We selected all episodes in which the focal students participated and re-examined the video recordings. We then used micro-analysis brainstorming (Rampton 2006) to scrutinize utterance-by-utterance and moment-by-moment of their interactions to propose how students and teachers create these interactions (both verbally and non-verbally) and with which purpose they are doing so. During this step we constantly paid attention to the way in which students and teachers react to each other (Bloom & Carter 2014), which is in accordance with the suggestions for micro-analysis of classroom discourse perspective. All individual utterances were thus comprehended as reactions to previous utterances and not as isolated phenomena. We further used multi-modal analysis (Lefstein & Snell 2014) and went through the transcript files after we re-watched the recordings. Using the transcripts in this way enabled us to focus more specifically on used lexical items which was beneficial for complementing of the already existing results of micro-analysis brainstorming.

Findings of the analysis were then confronted with teachers' descriptions of individual sequences which they uttered during the interviews. This step enabled us to understand individual situations from the perspectives of both teachers and triangulate the results of our analysis.

Our findings were contextualized with current theory of teacher interactions related to low-expectancy students and we thus underwent the process of grounded theorizing of our data (Hammersley & Atkinson 2007, pp. 158–162). The following part of this study presents the results of our analysis.

## **Findings**

Even though Ruda and Jana are similar students in many respects, their degree of participation in classroom discourse is different. Since Jana's responses take twice as much time as Ruda's, it is safe to say that Jana participates significantly more. The responses of both Ruda and Jana are primarily reactions to teachers' questions (while this is fully the case with Ruda, Jana also reacted to other students' responses). Jana's responses are also more productive than Ruda's since she utters 44 productive and 27 non-productive responses in total while Ruda participates only with six productive and ten non-productive responses. Only Jana produced the most valued responses which included thought and reasoning during the recorded classes. On the other hand, Ruda was observed to produce several null responses.

Table 1

Quantitative characteristics of Jana and Ruda's utterances

	Jana	Ruda
The overall duration of responses during the lessons (s)	580	188
The number of lessons attended (n)	9	7
The average duration of responses in one lesson (s)	64	27
Responses to teacher questions (n)	54	16
Responses to students' utterances or questions (n)	17	0
Null responses (n)	3	7
Incomplete responses - word/phrase (n)	24	3
Complete thought (n)	30	6
Thought and reasoning (n)	14	0

Table 2

Types of answered questions

	Jana	Ruda
Fact-checking questions (n)	12	3
Questions about students personal experiences and attitudes (n)	15	4
Questions checking higher cognitive processes (analysis, text interpretation) (n)	19	7

It is clear that Jana answered a higher number of questions than Ruda. However, this is not given solely by the behaviour of the teachers but rather by the behaviour of the pupils. For both teachers first asked questions and only then chose students who would answer them based on students' demonstrated willingness to answer questions which they showed by raising their hands, eye contact or shouting. Nonetheless, even though the quantitative data in Table 1 describe Ruda and Jana's willingness to answer questions, they cannot provide answers to our research questions. This situation calls for subtler qualitative analysis for which we have chosen some passages from Jana and Ruda's communication with their teachers which demonstrate the two types of the most commonly asked questions. These are questions about students' personal experiences and attitudes and questions which check higher cognitive processes related to analysis and interpretation of studied texts.

### **6.1 Question about Students' Personal Experiences**

A large part of the questions asked by teachers are formed by questions about students personal experiences, opinions, and attitudes. These questions are usually only loosely related to currently discussed texts and they are considered to be inclusive, because they let students join in regardless of their skills.



**Excerpt 1** (Hana and Ruda):

*The class discussed The (Un)ordinary Boy, about a boy with hereditary deformation of the face. The book thematizes what it means to be special in both positive and negative senses of the word. The teacher asked students whether they themselves are in any way special.*

- 1 **Teacher:** Do you think that you yourselves are special in any way? Anyone?
- 2 **Ruda:** Everybody is.
- 3 **Teacher:** Is everybody special?
- 4 **Ruda:** Well...
- 5 **Teacher:** And since you said it so nicely, Ruda, in what way do you think you are special?
- 6 **Students:** (*laughing*)
- 7 **Teacher:** But you shouldn't laugh at him, everyone can find something. Everyone is special at something, that's true. What do you think you'd excel at? Unlike the others? What do you think you'd excel at?
- 8 **Ruda:** (*silence*)
- 9 **Teacher:** Now you can't think of anything.
- 10 **Ruda** (*shakes his head*)
- 11 **Teacher:** Does anyone have an idea?
- 12 **Students:** (*speaking over each other*)
- 13 **Teacher:** (*asks Honza, who's raising his hand, to speak*) Well?
- 14 **Honza:** I excel at geography.
- 15 **Teacher:** At geography?
- 16 **Honza:** So far.
- 17 **Teacher:** I'd rather say you excel at football, for example.
- 18 **Students:** (*speaking over each other*)
- 19 **Teacher:** So. Will anyone say what they're special at, or good at? Well?
- 20 **Helena:** At golf.
- 21 **Teacher:** At golf, well, there you go.

Excerpt 1 captures a situation in which the teacher asked her students to highlight a special quality of their own. After she asked the whole class, Ruda joined in spontaneously and said that everyone is special at something (line 2). Despite its short duration, this interaction can be considered complete as it contains a whole idea. The teacher evaluated his statement positively and wanted to continue to interact with him (line 5). She returned to her original question, now personalized – she did not expect students to make general claims, but rather to go out on a limb and self-evaluate. The class began to laugh at this moment (line 6), which was probably because Ruda was not considered to be a good student, and thoughts of his weak study results arose because it was his teacher asking the question. This interpretation is supported by the fact that student Honza cited results in a school subject as his area of excellence (line 15). The teacher silenced her students and again focused on Ruda (line 7), but he refused to enter into further communication (lines 8 and 10). The teacher interpreted his silence as his inability to think of anything (line 9). Ruda was thus labelled as a student who cannot remember anything that would make him special.

The teacher then called out other students. On line 14, when Honza claimed to be good at geography, the teacher corrected his claim and ascribed to him instead the identity of an exceptional football player. There is a visible mechanism in this communicative exchange that was missing in the interaction with Ruda: the teacher herself was able to indicate Honza's exceptionality in an area. This means that she knew Honza's hobby and she appreciated it. This makes the situation socially much easier for Honza – it is easier to be praised from someone else than to give a positive self-evaluation in front of other schoolmates when there is a threat that the others will not agree with the positive self-evaluation and will ridicule the speaker. This is perhaps what Ruda was afraid of. We said that questions about students' personal experiences are generally viewed as simple and as giving space to all students. Excerpt 1 shows, however, that weaker students can have a problem with this type of question, especially when they do not have a strong social position in their class.

The discussion about the given topic continued and more students joined in (e.g. Helena on line 20). The exceptionality of each of the speakers was eventually established. In the end Ruda remained the only one whose exceptional features were not found. This is in itself a certain label.

**Excerpt 2** (Jonas and Jana):

*The teacher explained the life and work of John Huss and asked students what they would be willing to sacrifice their lives for.*

**22 Teacher:** What would you be willing to sacrifice your life for? (*a couple of students raise their hands, Jana among them*) Please. (*to Jana*)

**23 Jana:** For my family, a friend.

**24 Teacher:** For family, friends. Fine. Can you give an example, Jana?

**25 Jana:** For example, for Anežka, Eva, and Veronika.

**26 Teacher:** Sure, but in what situations would that be necessary? If you can imagine them.

**27 Jana:** I would ... I don't know. If someone threatened us, I would say he should kill me rather than the girls.

**28 Teacher:** I'll try to pull it down a bit so that we don't have death threats here. And when would you be willing to stand behind some person, for example, for a friend, as Jana mentioned that she would be willing to give her life for her family. So, when would you be willing to stand against it? Let's say that I will be walking here with a group of people and I will want to hurt your friend. You will be so tough that you will push her aside and say, no, you must deal with me first.

In Excerpt 2, Jana engaged in discussion after the teacher posed an open question to the classroom (similarly to Ruda in Excerpt 1). The teacher first positively accepted her reply about self-sacrifice for one's family and friends and then asked her to give a concrete example (line 24). Jana reacted by listing her actual friends, and thus gives an incomplete response (line 25). This answer was not what the teacher expected, as he wanted Jana to expand on how such a situation could occur. Jonas solved this discrepancy with a new, differently worded question (line 26) which Jana answers with a complete thought (line 27). The interaction thus presents a different scenario than the previous extract which Ruda initiated with a full response and ended with two null ones (lines 8, 10). On the other hand, Jana starts with an incomplete response (line 25) and works her way to a complete response (line 25). The productivity of her interaction thus increases.

This difference can be explained (to a large extent) by the different behaviour of both teachers. Hana repeated her question several times with almost identical wording each time (lines 1, 5 and 7). On the other hand, Jonas adapts his communication to the developing responses of Jana (lines 22, 24, 26) who in

the end managed to take advantage of the teacher's hint and gave an acceptable answer. The whole interaction ends with the teacher's accepting of Jana's answer and developing it (line 28), while referring to Jana's authorship and accepting Jana's declared willingness to sacrifice her own life for other people (*Jana mentioned that she would be willing to give her life for her family*). Jana was thus labelled as a student who is able to contribute to the discussion in a productive way and as an unselfish person.

We can see that similar types of personal questions lead to different interactions. The key difference lies in how long a teacher stays in interaction with a student and if the teacher offers any kind of help. It can be imagined that Hana could help Ruda with an area he is exceptional at, and the social effect of this interaction would be saved. Instead, the teacher turned to another student, which is always a signal of the previous speaker's communicative failure.

## **6.2 Questions Aimed at textual analysis and interpretation**

Since textual analysis is at the core of the examined lessons, this section presents interactions in which both teachers ask their students to interpret texts. A situation in which the teacher asked student Ruda to try to interpret a text is captured in Excerpt 3:

### **Excerpt 3** (Hana and Ruda):

*The class interpreted the book The Runaway, in which an adolescent hero runs away from the police together with a small boy, whom he first kidnaps, but then gradually befriends and finally returns to his parents.*

**29 Teacher:** Why did they get together? Just the loneliness? That they didn't want to be alone? No.

**30 Žaneta:** Fate.

**31 Teacher:** Fate. Not fate, I guess. Ruda, what do you think?

**32 Ruda:** I don't know.

**33 Teacher:** No idea at all? Can't you think of anything?

**34 Ruda:** I can't think of anything.

**35 Teacher:** Marek?

**36 Marek:** Well, I think that the older one suddenly knew better.

Both of Ruda's utterances in this interaction can be categorized under null responses (lines 32, 34). The teacher asked Ruda a question aimed at work interpretation. She indicated in her question that it does not have an unequivocal answer that the students should know. She did not ask Ruda what he knows but what he thinks; she asked him about his ideas (line 31). But Ruda approached the question as one dealing with knowledge. He informed the teacher that he did not know the answer (line 32). It was not that Ruda gave a wrong answer and made a mistake. Instead, he was clearly uncertain of himself, which led to a lack of answer. Teacher Hana asks Ruda once again whether he really does not want to share an answer. In repeating the student's answer (line 33), she confirmed that the interpretive question was knowledge-based and Ruda either knew the answer or he did not. After waiting for a second, she asked once more, formulating her own answer negatively (she did not ask him: *Can you think of anything?*, but *Can't you think of anything?*). In her answer she suggested the expected outcome of their interaction and ascribed to Ruda the label of a student who does not have any ideas. Ruda repeated this claim after her, thus confirming this identity (line 34). As we could see in Excerpt 1, this kind of labelling was typical of interactions between Hana and Ruda – it appeared in various communicative exchanges regardless of whether they were related to subject matters and work with text (Excerpt 3) or the student's personal

experience (Excerpt 1). The teacher then stopped her interaction with Ruda and turned to another student in the classroom (line 35). Unlike Ruda, student Marek understood that he was supposed to say what he thinks in this interaction, and not what he knows. He stated his answer in accordance with this setting (line 36). We saw this mechanism – when the teacher did not provide the student with sufficient guidance, she labelled him negatively and subsequently turned to another student – in Excerpt 1. It seems to be a set pattern which led to Ruda's failures when answering the teacher's questions. The pattern shows regardless of the cognitive demand of the given questions.

**Excerpt 4 (Jonas and Jana):**

*The teacher read stories from Metamorphoses by Ovid and then some ballads by Francois Villon, and then asked whether it was possible to find any connections between the two sets of texts.*

**37 Teacher:** Would you find any other connections there, too? I agree that love really connects all these texts. Can you find anything else? Please. *(He calls upon Jana, who holds her hand raised.)*

**38 Jana:** That it's suffering and sadness, that I think because of that, that this person, like, doesn't have, like, love in his life, at all?

**39 Teacher:** Try to explain it to me once again, please.

**40 Jana:** That like the suffering and sadness are like combined in the text ... aah ... I don't know. *(She shrugs.)*

**41 Teacher:** That suffering and sadness appear in all these texts. Or just somewhere to a larger extent?

**42 Jana:** Well, somewhere to a larger extent, rather.

**43 Teacher:** Ha, can you just tell me where? Try to give me an example.

**44 Jana:** Just like here for example in "Daphne".

**45 Teacher:** Hm.

**46 Jana:** So, "He wore a wreath of laurel on his head as a sign of unrequited love".

**47 Teacher:** Did you hear Jana, please? *(Lenka nods.)* Who didn't hear Jana? *(Simona and Dominik raise their hands.)* I need you to pay attention to these ideas, because I must praise Jana here, excellent. Jana came to a connection, a beautiful connection, where is the connection, tell us once again, Jana, please.

**48 Jana:** He wore a wreath of laurel on his head as a sign of unrequited love.

**49 Teacher:** Hm. And try to place it in context. Why are you speaking about this sentence? What was it about?

**50 Jana:** Well, that some, eh, Apollo like followed this Daphne, as if ...

**51 Teacher:** Hm.

**52 Jana:** And, eh, he like, loved her, and this Daphne transformed into that tree.

**53 Teacher:** Excellent. This means, we have a story here. *(He point at Jana with his hand.)* Of Apollo and the nymph Daphne who escaped from Apollo and in the end she turned into a laurel tree. And he, to commemorate that, to remember that, he wore a laurel wreath around his head.

In this interaction, Jana formulates four complete thoughts (lines 38, 42, 44–46, 50–52), out of which two include reasoning (lines 38, 44–46). At the start of the sequence teacher Jonas asked his students what the

selected sonnets by Villon and the story of Apollo and Daphne have in common. The class had already figured out that the connection point was the topic of love. But Jana made the observation that characters in these texts are examples of sorrow and suffering, and that the texts are about the absence of love. After she gave her answer (line 38), the teacher asked whether she could explain it once again (line 39). Jana however reacted to the re-initiation as if she had given a wrong answer. Instead of explaining it, she repeated the beginning of her previous answer and then, like Ruda, she fell into uncertainty (line 40). Instead of saying how she was considering the text, she told the teacher she does not know. She also turned the question to a knowledge-based one, with an answer that was unknown to her. It is clear that the situation was emotional for her, because she accompanied her answer with interjections and shrugs.

But teacher Jonas did not react at this moment by stressing that the student did not know the correct answer, as teacher Hana did. Instead, he asked the student an easier question – he led her to answer which text supported her previous answer and to quote an example from the text (line 43). He reacted to Jana's uncertainty by leading her to find evidence for her claim – he required her to find a piece of information in the text that corresponded with her interpretation. In this way, he gave Jana a task on a level that required a less demanding skill. The student understood that her previous answer was acceptable and continued in her argument. The teacher ascribed clearly positive labels to Jana in his feedback – he highlighted that Jana had formed a new idea that could be used to interpret the work (line 47). The whole interactive pattern had the effect that Jana's speeches were long and productive and that this student was able to follow difficult mental procedures.

### **6.3 Mechanisms of interactions and their sources**

Above we have presented two mechanisms of interactions out of which one results in a student's production of null responses and the other in creation of responses with complete thoughts and reasoning. It is crucial that no matter what type of questions teachers ask, the mechanism of their dealing with student replies remains similar. Ruda thus paradoxically also failed with questions regarding personal experiences and attitudes, which cannot be considered cognitively demanding or beyond the scope of his (expected) abilities.

The interaction between Hana and Ruda is a typical example of a situation in which a teacher puts a low-expectancy pupil into non-productive interactions (see for example Black 2007). On the other hand, the interaction between Jonas and Jana is not typical since with Jonas's guidance Jana manages to participate productively.

There are three basic mechanisms which Jonas uses that create the difference in Jana's participation. The first one is his remaining in interaction with a given student. While Hana gives word to other students once Ruda signals uncertainty or unwillingness to answer, Jonas continues to interact with Jana. Our analysis shows that this mechanism leads to a prolonged duration of time which a student has for their answers. The second mechanism is providing guidance by asking a new, simplified question. While Hana repeats her original question whenever Ruda cannot answer it, Jonas asks a new question. Our data show that in this way the teacher avoids exaggerated simplification and trivialization of a low-expectancy student's achievement and that the use of this mechanism results in more productive interactions. The third mechanism is positive labelling. Jana was repeatedly labelled as a student whose contributions were useful and worthy of attention. Ruda was labelled as a student who did not know anything and had no ideas. This labelling determined the further efforts of both students to join the discourse. Jana liked it very much and her participation increased. Ruda did not join the discourse that eagerly, although it cannot be said that he avoided it completely. But each attempt solidified his position as that of a weak student who cannot speak about more complicated topics.

If teachers act like Jonas they stimulate their students' willingness to participate. This in turn increases the chances that their participation is not only successful but also productive. A question then arises: why is the behaviour of Hana and Jonas so different when in their interviews they both said that students should be included in communication and that they both try to accomplish this goal? We think that the difference

in their teaching can be explained by their focus on different aspects of educational situations. Both teachers were video recorded during our project and we then watched and discussed their lessons with them. Each interview started with a given teacher describing what is currently being shown in the video recording. Our analysis of these interviews shows that teachers can be divided into three different types: (1) the first type focuses on actions of different students (e.g. “Petr is not paying attention at all”); (2) the second type describes and evaluates their own actions (“I did not manage to get the student’s attention”); and (3) the third type evaluates actions from the perspective of curriculum aims and whether these are achieved or not (“Well, there is no point in this discussion”).

Hana is an example of the first type. After having watched the recording, she primarily commented on actions of individual students while using a rather judgmental tone. For example, after having seen Extract 3, Hana went on to say:

**Hana:** Oh, this is horrible. That Ruda, he is such a sloth, he doesn’t do a thing . . .

That’s just like him.

Ruda’s null responses are explained as results of his little effort (“he doesn’t do a thing”) which she perceives as his personal trait (“that’s just like him”).

Jonas represents the third type, he emphasizes the importance of curriculum, examines how interactions proceed and whether they lead to accomplishment of his teaching aims or not. While doing so, he is not judgmental about the personal traits of the involved participants. By way of demonstration, it is possible to examine a scene from one his classes in which Jonas showed his students a portrait of Francois Villon without letting them know whom the painting shows. He then asked his students to guess who the person in the painting is and what its personal traits are. Jana volunteered and proposed that it could be a painter. Jonas did not comment on Jana’s response and gave word to other students. In the interviews, Jonas explained his behaviour with the following words:

**Researcher:** Sometimes student gives you an answer and you do not comment on it. For example, when Jana told you “He could be a painter.” There was no follow-up. Is there a reason for that?

**Jonas:** I know why she told me that, but I did not think that . . .

**Researcher:** Why did she tell you that?

**Jonas:** Because of the cap, the beret which he wears in that painting. I think that’s the connection because she might have seen some guy wearing a beret and that is what painters wear. I did not need that. I needed them to talk about his character or about how he lived his life.

**Researcher:** So, even at this fast pace you actually choose between responses which may lead to something and responses which lead to nothing?

**Jonas:** Yeah. Well, not all the time, but I try to do so.

It follows that Jonas does not take students’ personal traits into consideration while evaluating student responses. Instead, he favours such utterances which could accomplish his teaching aims (“I did not need that”). Since he pursues a certain curricular aim, he chooses to respond to only those utterances which might contribute to its accomplishment. Consequently, Jana’s personal traits are not important for Jonas in his effort to create conducive classroom discourse. Jonas pays no mind to her character; rather he focuses on the potential merit of her response and their possible contribution to his curricular aims.

## **7. Discussion and conclusion**

This study started with an inquiry as to how interaction between a teacher and a student is influenced by the teacher's low expectations related to the student. Our analysis shows that teacher expectancy is not the determining factor in interactions between teachers and students. This finding is not in accordance with previous studies according to which low expectations of teachers result in their specific communication with low-expectation students (Babad 1993; Brophy 1985) and in consequent exclusion of said students from productive interactions (Black 2007).

We examined two cases. A female teacher Hana has low expectations for a student which in turn influences how she speaks with the student. As a result of Hana's behaviour, Ruda participated in the construction of his passive role with frequent resignations and refusals to answer during communicative exchanges with his teacher. His behaviour can be interpreted as self-exclusion from the discourse for fear of producing a wrong answer (Hall et al. 2010). In effect, Ruda's way of answering solidified his weak student identity, which had a negative effect on his learning: "Pupils who are consistently positioned as academically weak may become discouraged by low expectations, switch off from learning (replacing active participation with a passive shrug or one-word response) and thus continue to fulfill the identity of low achiever attributed to them." (Lefstein & Snell 2014, p. 150)

As a counter-example, we examined the case of a male teacher Jonas and his interactions with a female student Jana. Much like Hana, Jonas does not expect much from Jana. Nonetheless, this is not reflected in his behaviour towards Jana. Jana's diametrically different case shows that placing a weak student into unproductive interactions or excluding them from the discourse are not necessary. Jana's participation rate was above average and productive. She got positive student status, which was created to a large extent by the teacher who actively created conditions for Jana to succeed.

In accordance with the existing research studies, we can attest that a teacher's behaviour determines a student's level of participation. However, we have shown that a teacher's behaviour need not be differential in relation to their expectations. In some aspects, Jonas behaves as if Jana were a high-expectancy student. Consequently, while there is a cause and effect relationship between a teacher's behaviour and a student's participation, this is not the case of teachers' expectancy and their behaviour. We regard this to be a positive finding.

According to Newberry and Davis (2008), perceived character of students is one of the key sources of differential behaviour. While this thesis is correct, our research shows that this emphasis on students' behaviour can be in place all the time (as is the case of Hana) or it can be deactivated (as is the case of Jonas). Babad (2009) differentiates between high and low biased teachers. He claims that high biased teachers are those who react more negatively against low-expectancy students than low-biased teachers would. Since the question of what is the source of difference between high and low biased teachers has not been conclusively answered, our study proposes one of its possible answers.

Based on our analysis which was done in accordance with Urhahne (2015), we claim that the key component in the triangle of expectancy-behaviour-participation is teacher differential behaviour which does not have to function as a mediator of the relationship between teacher judgement and students' motivation, but it can instead neutralize teachers' expectancies. Newberry (2013) speaks of differential and differentiated behaviour of teachers. The former concerns teachers' passive reactions on unexamined perceptions of a student which in our study is the case of Hana. Newberry (ibid) understands the latter type of behaviour as reflective and proactive responses based on students' needs which can to an extent be seen in Jonas's interaction with Jana. Jonas does not automatically behave in a specific manner towards a low-expectancy student. His behaviour is governed by his estimate of a given teaching situation and its potential to contribute to achieving Jonas's curricular aims. Jonas's behaviour is thus more influenced by dynamics of education situations than by the needs of individual students. Since he focuses more on educational situations than on individual students, Jonas's behaviour is not influenced by his expectations towards the students. Even though Jonas's approach is not in accordance with the contemporary call for taking into account the needs of individual students, our study shows that his approach is valuable, especially once seen from the perspective of productive participation of all students.

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## References

- Babad, E 1993, Teachers' differential behaviour, *Educational Psychology Review*, vol. 5, no. 4, pp. 347–376.
- Babad, E 1998, Preferential affect: The crux of the teacher expectancy issue, in J Brophy (ed.), *Advances in research on teaching: Expectations in the classroom*, CT: JAI Press, Greenwich, vol. 7, pp. 183–214.
- Babad, E 2009, *The social psychology of the classroom*, Routledge, New York.
- Black, L 2004, Differential participation in whole-class discussions and the construction of marginalised identities, *Journal of Educational Enquiry*, vol. 5, no. 1, pp. 34–54.
- Black, L 2007, Analysing cultural models in socio-cultural discourse analysis, *International Journal of Educational Research*, vol. 46, no. 1–2, pp. 20–30.
- Bloom, D & Carter, SP 2014, Microethnographic Discourse Analysis, in P Albers, T Holbrook & AS Flint (eds.), *New Methods of Literacy Research*, Routledge, New York, pp 3–18.
- Brophy, JE 1985, Teacher-student interaction, in JB Dusek (ed.), *Teacher expectancies*, NJ: Lawrence Erlbaum, Hillsdale, pp. 303–328.
- Brophy, JE & Good, TL 1970, Teachers' communication of differential expectations for children's classroom performance: Some behavioural data, *Journal of Educational Psychology*, vol. 61, no. 5, pp. 365–374.
- Cooper, H & Baron, R 1977, Academic expectations and attributed responsibility as predictors of professional teachers' reinforcement behaviour, *Journal of Educational Psychology*, vol. 72, no. 3, pp. 345–354.
- Edwards, D & Mercer, N 1987, *Common Knowledge: The Development of Understanding in the Classroom*, Routledge, London.
- Fischbach, A, Baudson, TG, Preckel, F, Martin, R & Brunner, M 2013, Do teacher judgments of student intelligence predict life outcomes?, *Learning and Individual Differences*, vol. 27, pp. 109–119.
- Freiberger, V, Steinmayr, R & Spinath, B 2012, Competence beliefs and perceived ability evaluations: How do they contribute to intrinsic motivation and achievement?, *Learning and Individual Differences*, vol. 22, pp. 518–522.
- Friedrich, A, Flunger, B, Nagengast, B, Jonkmann, K & Trautwein, U 2015, Pygmalion effects in the classroom: Teacher expectancy effects on students' math achievement, *Contemporary Educational Psychology*, vol. 41, no. 1, pp. 1–12.
- Hall, LA, Johnson, AS, Juzwik, MM, Wortham, SE & Mosley, M 2010, Teacher identity in the context of literacy teaching: Three explorations of classroom positioning and interaction in secondary schools, *Teaching and Teacher Education*, vol. 26, no. 2, pp. 234–243.



- Hammersley, M & Atkinson, P 2007, *Ethnography, Principles in practice*, Routledge, New York.
- Hernandez-Martinez, P, Williams, J, Black, L, Davis, P, Pampaka, M & Wake, G 2011, Mathematics coursework as facilitator of formative assessment, student-centred activity and understanding, *Research in Mathematics Education*, vol. 13, no. 2, pp. 197–212.
- Heyd-Metzuyanim, E 2013, The co-construction of learning difficulties in mathematics-teacher-student interactions and their role in the development of a disabled mathematical identity, *Educational Studies in Mathematics*, vol. 83, no. 3, pp. 341–368.
- Jurik, V, Gröschner, A & Seidel, T 2013, How student characteristics affect girls' and boys' verbal engagement in physics instruction, *Learning and Instruction*, vol. 23, no. 1, pp. 33–42.
- Jurik, V, Gröschner, A & Seidel, T 2014, Predicting students' cognitive learning activity and intrinsic learning motivation: How powerful are teachers statements, student profiles, and gender?, *Learning and Individual Differences*, vol. 32, no. 1, pp. 132–139.
- Jussim, L & Harber, KD 2005, Teacher expectations and self-fulfilling prophecies: Knowns and unknowns, resolved and unresolved controversies, *Personality and Social Psychology*, vol. 9, no. 2, pp. 131–155.
- Kovalainen, M & Kumpulainen, K 2007, The social construction of participation in an elementary classroom community, *International Journal of Educational Research*, vol. 46, no. 3–4, pp. 141–158.
- Lave, J 1993, The practice of learning, in S Chaiklin & J Lave (eds.), *Understanding Practice. Perspectives on Activity and Context*, University Press, Cambridge, pp. 3–32.
- Lefstein, A & Snell, J 2014, *Better than best practice: Developing teaching and learning through dialogue*, Routledge, London.
- Lemke, JL 2000, Across the Scales of Time: Artifacts, Activities, and Meanings in Ecosocial Systems, *Mind, Culture and Activity*, vol. 7, no. 4, pp. 273–290.
- Marsh, HW & Köller, O 2004, Unification of theoretical models of academic self-concept/achievement relations: Reunification of east and west German school systems after the fall of the Berlin Wall, *Contemporary Educational Psychology*, vol. 29, no. 3, pp. 264–282.
- Melander, H & Sahlström, F 2009, In tow of the blue whale. Learning as interactional changes in topical orientation, *Journal of Pragmatics*, vol. 41, no. 8, pp. 1519–1537.
- Mercer, N 2008, *The Guided Construction of Knowledge: Talk among Teachers and Learners*, Multilingual Matters, Clevedon.
- Myhill, D 2002, Bad Boys and Good Girls? Patterns of Interaction and Response in Whole Class Teaching, *British Educational Research Journal*, vol. 28, no. 3, pp. 339–352.
- Newberry, M 2013, Reconsidering differential behaviours: Reflection and teacher judgment when forming classroom relationships, *Teacher Development*, vol. 17, no. 2, pp. 195–213.
- Newberry, M & Davis, HA 2008, The role of elementary teachers' conception of closeness to students on their differential behaviour in the classroom, *Teaching and Teacher Education*, vol. 24, no. 8, pp. 1965–1985.
- Pimentel, SD & McNeill, KL 2013, Conducting talk in secondary science classrooms: Investigating instructional moves and teachers' beliefs, *Science Education*, vol. 97, no. 3, pp. 367–394.
- Rampton, B 2006, *Language in late modernity. Interaction in an urban school*, Cambridge University Press, Cambridge
- Reznitskaya, A & Gregory, M 2013, Student thought and classroom language: Examining the mechanisms of change in dialogic teaching, *Educational Psychologist*, vol. 48, no. 2, pp. 114–133.
- Rosenthal, R & Jacobson, L 1968, *Pygmalion in the Classroom*, Holt, Rinehart & Winston, New York.

*Author 2015.*

- Seidel, T 2006 The role of student characteristics in micro teaching-learning environments, *Learning Environments Research*, vol. 9, no. 3, pp. 253–271.
- Sfard, A 2007, When the rules of discourse change, but nobody tells you: Making sense of mathematics learning from a commognitive standpoint, *Journal of Learning Sciences*, vol. 16, no. 4, pp. 565–613.
- Sfard, A 2008, *Thinking as communicating*, Cambridge University Press, New York.
- Sinclair, J M & Coulthard, M 1975, *Towards an analysis of discourse: the English used by teachers and pupils*, Oxford University Press, London
- Snell, J & Lefstein, A 2011, Computer-assisted systematic observation of classroom discourse & interaction: Technical report on the systematic discourse analysis component of the Towards Dialogue study, working papers in *Urban Language & Literacies*, King's College London, London.
- Tiedemann, J 2000, Parents' gender stereotypes and teachers' beliefs as predictors of children's concept of their mathematical ability in elementary school, *Journal of Educational Psychology*, vol. 92, no. 1, pp. 144–151.
- Urdu, T & Schoenfelder, E 2006, Classroom effects on student motivation: Goal structures, social relationships, and competence beliefs, *Journal of School Psychology*, vol. 44, no. 5, pp. 331–349.
- Urhahne, D 2015, Teacher behaviour as a mediator of the relationship between teacher judgment and students' motivation and emotion, *Teaching and Teacher Education*, vol. 45, pp. 73–82.
- Vygotsky, LS 1978, *Mind in society: The development of higher psychological processes*, Harvard University Press, Cambridge.
- Walkey, FH, McClure, J, Meyer, LH & Weir, KF 2013, Low expectations equal no expectations: Aspirations, motivation, and achievement in secondary school, *Contemporary Educational Psychology*, vol. 38, no. 4, pp. 306–315.
- Wortham, S 2001, Language Ideology and Educational Research, *Linguistics and Education*, vol. 12, no. 2, pp. 253–259.