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Meaningful use of talk moves: Preservice teachers' self-reflections on individual student-teacher conversations

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Abstract: The aim of this study was to investigate preservice teachers' (PSTs') reflections on the use of talk moves (O' Connor & Michaels, 2019; Kazemi & Hinz, 2014) after they had conducted individual student-teacher conversations (ISTCs) in practicum. The research questions were: What talk moves did the PSTs articulate in their reflective texts? What reasoning did the PSTs use in their reflections when describing 'used moments' and 'lost moments' in their ISTCs? We used Alexander's (2020) theories of dialogic talk to analyse the data. The results showed that the PSTs reported talk moves such as *saying more* and *challenge* when they were successful in the ISTCs ('used moments'). This shows the supportive nature of the dialogic talk. 'Lost moments' included uncertainty in the use of *wait time* and lack of spontaneous follow-up questions. The reasons behind 'lost moments' were primarily related to lack of cumulative skills (Alexander, 2020). The results of the study may indicate that the PSTs have gained an increased awareness of their own dialogic skills, which may help strengthen their professional development and competence as future teachers.

Keywords: teacher education, individual student-teacher conversations, dialogic talk, talk moves

Sammendrag: Målet med denne studien var å undersøke lærerstudenters refleksjoner rundt bruk av samtaletrekk (O' Connor & Michaels, 2019; Kazemi & Hinz, 2014) etter å ha gjennomført individuelle elevsamtaler (ISTCs) i praksis. Forskningsspørsmålene var: Hvilke samtaletrekk kom fram i lærerstudentenes refleksjonstekster? Hvilke resonnementer brukte lærerstudentene i sine refleksjoner når de beskrev «brukte øyeblikk» og «tapte øyeblikk» i elevsamtalen? For å analysere dataene brukte vi Alexander (2020) sine teorier om dialogisk samtale. Resultatene viste at lærerstudentene rapporterte om samtaletrekk som *å si mer* og *utfordre* der de lyktes med dialogen i elevsamtalen («brukte øyeblikk»). Dette viser den dialogiske samtals støttende karakter (supportive). «Tapte øyeblikk» viste blant annet usikkerhet i bruk av *ventetid* og mangel på spontane oppfølgingsspørsmål. Begrunnelsene for «tapte øyeblikk» var først og fremst knyttet til manglende kumulative (cumulative) ferdigheter (Alexander, 2020). Resultatene fra studien kan tyde på at studentene har fått en økt bevissthet i forhold til egne dialogiske ferdigheter, noe som kan være med å styrke deres profesjonelle utvikling og kompetanse som fremtidige lærere.

Nøkkelord: lærerutdanning, individuelle elevsamtaler, dialogiske samtaler, samtaletrekk

Introduction

The claim that oracy is a primary tool for learning is well established in educational science (Kim & Wilkinson, 2019, p. 70; Mercer et al., 2020). Teachers – or in this case, preservice teachers (PSTs) – need to engage with oracy not only in whole-class situations, but also in formalised conversations such as individual student–teacher conversations (ISTCs) (in Norwegian *elevsamtaler*). ISTCs are an important part of the continuous assessment work in schools. As stated in the Education Act,

the student has the right to talk to the teacher at least once every six months about his or her development in the subjects and social development. The purpose of assessment in subjects is to promote learning and contribute to the desire to learn during the course and to provide information about competence during and at the end of education in the subject. (Opplæringslova, 2023, chapter 3, § 3.7)

As described above, ISTCs must be conducted in accordance with Norwegian law. The one-to-one conversation between the student and the teacher plays an important role in discussing the student’s needs, requirements, and progress (Tangen, 2019). In our study, PSTs were encouraged to talk about both subject matter and social development. Students’ views and thoughts must be valued, as stated in the core curriculum: ‘The dialogue between teacher and student and between school and home must be based on mutual respect’ (Kunnskapsdepartementet, 2017, p. 9).

In this context, it is important that teachers – or in our case, preservice teachers (PSTs) – understand that dialogues have social and emotional as well as cognitive dimensions (Hennessy et al., 2021, p. 187), and that learning is an interactive process that is built through joint activities between teachers and students such as ISTCs. Therefore, teachers or PSTs need to develop a broad repertoire of conversation-based pedagogical skills and strategies (Alexander, 2018, p. 563). This pedagogical competence in relation to children’s participation in matters that affect them is, according to the new Education Act, a requirement for teachers.

Moreover, it is recommended to systematically allow students to give feedback on the perceived benefits of different learning processes, either as a

whole class, randomly selected, or individually through dialogue with their teacher. This means that students can be involved to a greater extent than today in the planning, implementation, and evaluation of their own learning processes (Faannessen et al., 2022, p. 6). This must have implications for teacher education (TE).

The ability to plan and conduct ISTCs with the aim of promoting participation and empowerment is something that PSTs are not traditionally assessed on before they start work as newly qualified teachers. Based on a survey carried out by the PSTs' organisation *Pedagogstudentene* (in English: pedagogy students), 66 % of the respondents claim that TE lacks practice relevance, and that they did not get enough opportunities to carry out ISTCs during their education (Pedagogstudentene, 2021, p. 23). This survey clearly shows the need to focus on ISTCs in TE.

In fact, rehearsing ISTCs – as in the present study – is in line with what the Advisory Council for Teacher Education (2024) calls 'expanded practice'. This new term involves learning situations where PSTs learn through experimentation, active participation, and experiences with authentic situations from future working life.

In schools, many different types of conversations and dialogues take place between teachers and students on a daily basis. There is a lot of research in the field of dialogic teaching that looks at whole-class dialogues (Alexander, 2018; Michaels & O'Connor, 2015). However, there is little research on ISTCs and on how to use talk moves effectively (O'Connor & Michaels, 2019; Kazemi & Hinz, 2014), which is under scrutiny in the present study.

The purpose of this qualitative case study is to explore PSTs' post-practicum reflections after rehearsing ISTCs. Our research relates to the subject 'Pedagogy and pupil-related skills' (UHR, 2017a, b) and the obligatory assessment 'My student'. In this assessment, the PSTs were asked to analyse their dialogue and then identify and transcribe moments that they considered successful in relation to the use of talk moves (used moments), or unsuccessful because they missed the opportunity to follow up the students' responses (lost moment). The study aimed to answer the following research questions: What talk moves did the PSTs articulate in their reflective texts? What reasoning did the PSTs use in their reflections when describing 'used moments' and 'lost moments' in their individual student-teacher conversations (ISTCs)?

Existing research

There is a growing international research interest in educational dialogue as a form of classroom discourse that supports learning through interaction with others (Alexander, 2020; Hennessy et al., 2021). The research literature on dialogic teaching is extensive. Various definitions are used, such as dialogic pedagogy and dialogic teaching (Kim & Wilkinson, 2019). Researchers from different disciplines have studied dialogue as an important factor in promoting good student-teacher relationships (Limstrand, 2006; Sabol & Pianta, 2012). A good understanding of both communication and relationship is the basis for being able to seize the moment in a conversation (Stern, 2004).

Despite differences in terminology and emphasis, the research draws on common features of dialogues, such as greater student engagement, open exchange of ideas, collaborative inquiry, and knowledge constructions, as well as respectful classroom relationships (Haneda, 2017; Hardman, 2019). Dialogues have social, emotional, and cognitive dimensions, and learners need to feel safe to take risks (Hennessy et al., 2021, p. 187). As explained by Olga Dysthe (1997), a dialogic framework is about how meaning is made 'in and through language, thinking, communication and action and the products of such processes' (p. 88).

Some Norwegian research on ISTCs (e.g. Lindset & Aune, 2020; Limstrand, 2014; Tangen, 2019) provides examples of how ISTCs can contribute to improving student learning outcomes.

First, Limstrand (2014) investigated how formal conversations between teachers and students in secondary schools can contribute to the quality of learning. The findings from this research suggest that dialogues between teachers and students can help students both enjoy learning and improve their learning outcomes. The study points out that for these dialogues to be successful, teachers need the skills to conduct such conversations. For example, it is important that students' suggestions are followed up (Limstrand, 2014, p. 4).

Second, Tangen's (2019, p. 227) research shows that ISTCs in upper secondary schools provide an opportunity to create safety for students, develop good relationships between teachers and students, and strengthen student motivation and learning. Tangen (2019) suggests some changes with potential for improvement: for example, greater awareness of opportunities for mutual learning. The idea of mutual dialogue seems to clash with established roles and traditions, systems, and structural conditions (p. 236). These findings

from Tangen support the recommendations of Faanessen et al. (2022), and the new Education Act (Opplæringslova, 2023).

Thirdly, a study of PSTs in vocational TE used simulation as a didactic tool to practise communication skills that are relevant for practicum (Lindset & Aune, 2020). The results showed that the vocational TE students found it useful to simulate an ISTC, and that this knowledge was relevant for practicum.

The present thematic review of the above-mentioned Norwegian studies shows that the enactment of meaningful ISTCs requires dialogic skills. However, few studies examined the concept of dialogic talk used in primary schools. Indeed, there is little research on how PSTs can rehearse and perform ISTCs by focusing on talk moves (O'Connor & Michaels, 2019; Kazemi & Hinz, 2014). To fill this research gap, we investigated the enactment of dialogic ISTCs both on campus and in practicum schools.

Theoretical framework

Dialogic talk in individual student-teacher conversations

In this article, we draw on the concept of dialogism that has been introduced by Bakhtin (1981). Interestingly, Bakhtin distinguished between 'authoritative' and 'internally persuasive discourses' (pp. 345–346). Authoritative discourses derive their authority from tradition, authorised truths, official authorities, or people approved as authorities. Such discourses position ISTCs as a monological one-way process.

In contrast, internally persuasive discourses come from the outside (another person, for example the teachers in the ISTCs), encounter our own thoughts and experiences, and become 'half-ours and half-someone else's' (Bakhtin, 1981, p. 345). A good dialogue lies in 'the tension, interaction and confrontation between these discourses' (Dysthe, 1997, p. 85).

This concept of dialogism is echoed in Alexander's (2020) concept of dialogic talk. He emphasises the need for every teacher to develop a broad repertoire of talk-based pedagogical skills and strategies. Recognising the uniqueness of each classroom's personalities and circumstances gives teachers the responsibility to decide how to apply their repertoire (Alexander, 2018, p. 3).

ISTCs (*elevsamptalen* in Norwegian) can be organised differently depending on the purpose of the dialogue. In fact, conversations are one of Alexander's (2020, p. 139) five interactive settings that can draw on dialogic talk. Alexander suggests six principles that can guide the conduct of conversations and serve as criteria for judging whether conversations can fairly be called 'dialogic': (1) Collective (students and teachers are willing and able to engage in learning tasks together); (2) Supportive (students and teachers help each other reach common understandings); (3) Reciprocal (teachers ensure that students have ample opportunities to listen to each other, share ideas, and ask questions); (4) Deliberative (students and teachers work towards reasoned positions and outcomes); (5) Cumulative (students and teachers integrate their own and each other's contributions into coherent lines of thought and understanding); (6) Purposeful (talk is directed towards specific learning goals) (Alexander, 2020, p. 131).

Even though Alexander's principles mainly apply to whole class and small group settings, we decided to use his approach to analyse the dialogic dimension of ISTCs. For example, we applied the reciprocal principle to the relation between the student and the teacher (in our case a PST) because teachers must facilitate 'ample opportunities, share ideas and ask questions' (Alexander, 2020, p. 131) in their conversations with each student.

Talk moves

A key concept in dialogic talk is the idea of repertoire. Dialogic talk requires teachers (in our case PSTs) to have a repertoire of different talk moves to facilitate dialogues (Kim & Wilkinson, 2019, p. 72).

According to Boyd (2012, p. 48), dialogic talk requires time and reflection, as well as flexible planning. It requires teachers to have the skills and expertise (and willingness) to make decisions and revisions to find the most appropriate stepping stones to further students' understanding and allow them the freedom to explore.

Talk moves are different actions that a teacher can use in an ISTC to promote dialogues that are productive for learning (Hennessey et al., 2021,

p. 187). When used appropriately, talk moves can act as a tool for mediation (Michaels & O'Connor, 2015). The ability to follow up on a response is crucial in a conversation (Myklebust & Guadie, 2024).

According to Erickson (2011, p. 130), classroom conversations can be analysed as a form of improvisation. The essential role of improvisation takes place when the teacher, or PSTs in our study, respond effectively to what Myhill and Warren (2005) call critical moments (see similar concepts in Cabot & Brodal, 2025; Myklebust & Tuset, 2025) and make use of them.

One of the goals is to help students to engage with their thinking and allow them to change their own thinking and sharpen their argument (O'Connor & Michaels, 2019, p. 172).

Recent research on dialogic talk suggests key features of dialogue such as questioning (press for reasoning), elaboration, and student participation (Hennessy et al., 2021; Howe et al., 2019).

In line with international research (Kazemi & Hinz, 2014), it is important for the PSTs to be aware of how theories of talk moves can be an important tool both in preparing and enacting ISTCs (Michaels & O'Connor, 2015).

Methods

Research design and data collection

This qualitative case study is part of the NFR-funded research project ReTPro (Rehearsing Teaching Professionally). The data consist of texts related to the obligatory assignment 'My student', in which the PSTs identified and reflected on their use of different talk moves during audio-recorded ISTCs.

The PSTs (N = 12) were in their second year of primary (GLU 1–7) and lower secondary (GLU 5–10) teacher education (TE). In line with the 'cycle for collective learning' (McDonald et al., 2013, p. 382), the assignment 'My student' was developed in four phases. Data were primarily collected from the fourth phase.

Phase 1 began with theoretical input on talk moves (O'Connor & Michaels, 2019; Kazemi & Hinz, 2014), and was followed by getting familiar with examples of guidelines for ISTCs developed at the different practicum schools.

Table 13.1 provides an overview of the talk moves that were presented to the PSTs.

Table 13.1

Talk moves (based on O'Connor & Michaels, 2019; Kazemi & Hinz, 2014).

Talk moves	Examples
EXPLAIN/SAY MORE	Can you explain your thinking?
REVOICE	So, you're saying that... so I understand you correctly?
RESTATE/REPEAT	Could you please repeat in your own words?
PRESS FOR REASONING	Why does it make sense?
CHALLENGE	Does this always apply?
ADD ON	Do you want to add something?
AGREE/DISAGREE	Do you agree or disagree? Why?
WAIT TIME	Please, take your time...

The PSTs were already familiar with using these talk moves in whole-class discussions carried out in the subjects mathematics, and English as a Foreign Language. They were now asked to reflect on how they could use talk moves in ISTCs.

Phase 2 included iterative attempts to identify dialogic talk by using a game simulator, 'Snakke med barn' (Talking with Children), developed for people working with children and young people (RTVS, n.d.). The PSTs were asked to test the simulation game in pairs, and to make notes about ways to promote dialogic talk. In addition, they produced their own guidelines for the enactment of ISTCs in practicum schools.

Phase 3: The PSTs enacted their individual ISTCs in practicum. Prior to this, the PSTs had observed their student in practicum for about two weeks, and taken notes. In some cases, they had redesigned their guidelines before carrying out the individual ISTCs.

Phase 4 (Analysis and reflection): Shortly after completing the ISTC, each PST listened to the recording of the ISTC together with the practicum teacher. First, they were asked to identify the different talk moves they had used in their conversations (RQ1). Then, they transcribed one moment that they

considered successful, and one moment when they missed the opportunity to follow up on what the students were saying. It was interesting to see if the PST could identify so-called critical moments. Myhill and Warren (2005) define critical moments as situations 'where the teacher made good use of an opportunity to develop independent understanding or conversely where the teacher missed or muddled such an opportunity' (p. 59). We have named these opportunities 'lost moments' and 'used moments' (RQ2).

Participants

The selection of participants was strategic. The PSTs were recruited in person from a university that offers pedagogy courses for PSTs in Western Norway. The selection consisted of 12 participants: seven females, and five males. They were given the following fictitious names: Liv, Evy, Eva, Lilly, Siw, Thea, Mary, Ben, Ola, Ian, Joe, and Sam. They were aged between 19 and 32. Four PSTs studied GLU 1–7 (elementary school), and eight of them studied GLU 5–10 (lower secondary school). As the group includes both GLU 1–7 and GLU 5–10, the ISTCs were conducted with students from grades 1 to 10.

When selecting a student to participate, the PSTs were free to choose one of the students whose parents had signed and approved the assessment 'My student'. The participants were in their second year of TE. Informed consent was obtained from the participants. All information collected was kept confidential (NSD 619149).

Data analysis

The reflective texts (N 12) form the background of this analysis. For the first research question, we used deductive coding (Saldaña, 2021). We read the informants' reflective texts, and registered the informants' self-perceived report on the use of talk moves (RQ1). For example, a self-perceived use of

a talk move is indicated by a +, while an informant's report of no use of talk moves is indicated by a 0 (see Table 13.2).

Regarding RQ2, we used both a deductive and an inductive method. Indeed, we analysed the PSTs' reports of 'used moments' (see Table 13.3) and 'lost moments' based on Alexander's (2020, p. 131) six principles of dialogic talk. However, we also searched across the data to find repeated patterns of meaning. Thematic analysis 'involves the searching across a data set – to find repeated patterns of meanings' (Braun & Clark, 2006, p. 86).

There was a contiguity between high or low reports of talk moves such as *say more/explain*, *challenge*, and *press for reasoning*. In this context, we introduced the code 'ISTC-friendly talk moves'. For example, based on the participants' reflections, we categorised the 'lost moments' into themes such as 'lost connection with the student', 'lack of time', 'not using *wait time*', 'I asked a negatively charged question', and 'I didn't ask a follow-up question'. We labelled these 'lack of confidence and ability to ask a spontaneous follow-up question' and 'the silence was too long'.

Findings

What talk moves did the PSTs articulate in their reflective texts?

Using illustrative examples, this section presents the PSTs' reflections on their different use of talk moves during the ISTCs.

We have outlined the following detailed overview of the informants' self-reported use of talk moves.

Table 13.2

Informants' self-reported use of talk moves (based on O'Connor & Michaels, 2019; Kazemi & Hinz, 2014)

Talk moves/PST	Liv	Siw	Ola	Sam	Ian	Joe	Thea	Lilly	Eva	Ben	May	Evv	Result
<i>Say more/ explain</i>	+	0	+	+	+	+	+	+	0	0	+	+	10
<i>Revoice</i>	+	0	0	0	+	+	0	+	+	+	0	+	7
<i>Restate/repeat</i>	+	+	+	+	0	+	0	0	0	0	-	0	8
<i>Press for reasoning</i>	+	+	+	+	+	+	+	0	+	+	0	0	9
<i>Challenge</i>	+	+	+	+	+	0	+	0	+	+	+	+	10
<i>Agree/ disagree</i>	0	0	0	0	0	0	0	+	0	0	0	0	1
<i>Add on</i>	+	+	+	+	+	0	0	+	0	+	+	0	8
<i>Wait time</i>	+	+	0	0	+	+	0	0	+	0	+	0	6

Note: Informants' self-perceived estimates were derived from the written assessment. For example, a self-perceived use of a talk move is indicated by a +, whereas an informant report of no use of talk moves is indicated by a 0.

Table 13.2 shows the PSTs' tendency to report using the talk moves *say more/explain*, *press for reasoning*, *challenge*, *repeat*, and *add on*. Only six PSTs reported *wait time* as one of the moves they used and felt comfortable with, and only one PST reported using *agree/disagree*.

What reasoning did the PSTs use in their reflections when describing 'used moments' and 'lost moments' in their ISTCs?

'Used moments'

In the following section, we examine our findings in relation to RQ2. First, we highlight the PSTs' description of their 'used moments', meaning the moments when they felt that they were successful in the conversation with their student.

Table 13.3 gives an overview of the questions that the PSTs selected and transcribed as a successful move.

Table 13.3

An overview of the PSTs' talk moves and reasoning in relation to 'used moments'

PSTs	The PSTs' reported question (talk move)	PSTs' reasoning
Liv	Talking about a difficult friendship in class: So why do you think so? (<i>Press for reasoning</i>)	I realise that the student is willing to open up a little to me.
Evy	Why didn't you like social science? (<i>Press for reasoning</i>)	I managed to challenge the student in what ways the social studies classes should be arranged so that he would enjoy this subject better.
Joe	How do you think we can make grammatical inflection easier? (<i>Challenge</i>)	As teachers we value and take input from the students so that we can teach in a more adapted way.
Thea	Is it ok for you to read loud in the class? (<i>Challenge</i>)	It became a more meaningful conversation.
Eva	What if you are not so secure then? (<i>Challenge</i>)	The student realised that it was not embarrassing to raise his hand.
May	Can you elaborate why it is annoying to work together with your friends in group work? (<i>Say more/explain</i>)	I used <i>wait time</i> as a talk move, which gave the student the opportunity to reflect on her own attitudes.
Siw	How is the learning environment in your class? (<i>Challenge</i>)	I felt that this very moment set a standard for the rest of our conversation. She opened up more and continued to elaborate on her answers.
Ian	How do you feel about working with the others in the class? (<i>Challenge</i>)	I elicited the student's awareness of his own attitudes towards group work.
Ola	What else do you do in your spare time? (<i>Say more/explain</i>)	I became familiar with the student at a deeper level.
Lilly	Talking about noise in class: What do you mean about that? (<i>Challenge</i>)	The student put forward his own opinions.
Sam	What can you contribute to improve the language subject? (<i>Challenge</i>)	I give the student opportunities to take responsibility for his own learning.
Ben	How can you then work to get a better attitude towards the subject? (<i>Challenge</i>)	He realises the importance of his own attitudes in relation to relationships.

In order to classify the PSTs' reasoning behind their 'used moments', we identified three types of talk moves that the PSTs reported as successful: *press for reasoning*, *say more*, and *challenge*. *Press for reasoning* was identified when the PSTs used the interrogative pronoun 'why', whereas *challenge* included other questions. We classified these talk moves as 'ISTC-friendly talk moves'.

'Lost moments'

Eight PSTs reported on lost moments. Thea, Liv, Joe, Lilly, Ben, and Evy related their 'lost moments' to lack of confidence and ability to ask spontaneous follow-up questions. For example, Liv and Thea used the following phrase to describe the situation: 'I lost the connection with the student'. Evy explained that she felt uncomfortable at the beginning of the ISTC.

I didn't ask a follow-up question. (We were talking about the 'school road'.) This occurred in the beginning of the ISTC. I got more comfortable later in the conversation with the student. I think this is why it became a 'lost moment'.

Ola and Sam related 'lost moments' to the talk move *wait time*. Ola expresses the following when reflecting on why it was difficult to use *wait time*:

I could have given the student more time between each question. This is probably because I felt uncomfortable being silent for too long. I could have given the student more time for each question. Instead, I was probably being a bit directive and leading the student in a certain direction rather than giving him time to think.

In sum, the PSTs' descriptions of 'lost moments' were situations in which they could not seize the moment (Stern, 2004) and keep the conversation going. The two categories that emerged from the data were: 'Lack of confidence and ability to ask spontaneous follow-up questions,' and 'the silence was too long.'

Discussion

Reflections on PSTs' use of talk moves

In the first part of their analysis of their reflective texts, the PSTs were asked to report on their use of talk moves (see Table 13.2), which corresponds to RQ1: What talk moves did the PSTs articulate in their reflective texts? There are some interesting findings here.

First, the high degree of coherence between the talk moves reported in Table 13.2 and the talk moves they highlighted in their successful moments ('used moments') in Table 13.3 (RQ2). The talk moves the PSTs used predominantly were *say more/explain*, *challenge*, and *press for reasoning*. It seems that the PSTs were comfortable to use these talk moves because they both identified them and lifted them forward as successfully used talk moves.

Secondly, it is surprising that only six PSTs reported *wait time* as one of the talk moves they actively used and felt comfortable with. From the first term of TE onwards, the subject pedagogy focuses clearly on *wait time* as a general pedagogical tool of classroom management. Two PSTs mentioned *wait time* as a reason for their 'lost moments'. This may indicate that *wait time* is a difficult conversational tool to pick up and, therefore, important to rehearse (O'Connor & Michaels, 2019, p. 172).

Thirdly, only one PST reported having used the talk move *agree/disagree*. The reason for this may be that this talk move can include questions that students may perceive as leading and directive. On the other hand, *agree/disagree* is often combined with the talk move *revoice*, which may stimulate students to agree or disagree as a way of extending their thinking (Alexander, 2018). Student thinking should have a natural place in ISTCs.

Reasoning behind talk moves in 'used' and 'lost moments'

The second research question relates to the question of what reasoning the PSTs used in their reflections when describing 'used moments' and 'lost moments' in their ISTCs.

In the following subsections, we explore different possible theoretical explanations that can help understand the PSTs' reasoning.

'Used moments' and 'dialogue-friendly talk moves'

As shown in Table 13.4, the PSTs' reasons behind their talk-move choices can be linked to Alexander's (2020) principles of dialogic talk:

Table 13.4

An overview of the PSTs' talk moves and principles in 'used moments'

PSTs	The PSTs' reported question (talk move)	PSTs' reasonings	Principles (Alexander, 2020)
Liv	Talking about a difficult friendship in class: So why do you think so? (<i>Press for reasoning</i>)	I realise that the student is willing to open up a little to me.	<i>Supportive</i>
Evy	Why didn't you like social science? (<i>Press for reasoning</i>)	I managed to challenge the student in what ways the social studies classes should be arranged so that he would enjoy this subject better.	<i>Supportive</i>
Joe	How do you think we can make grammatical inflection easier? (<i>Challenge</i>)	As teachers we value and take input from the students so that we can teach in a more adapted way.	<i>Supportive</i>
Thea	Is it ok for you to read loud in the class? (<i>Challenge</i>)	It became a more meaningful conversation.	<i>Supportive</i>
Eva	What if you are not so secure then? (<i>Challenge</i>)	The student realised that it was not embarrassing to raise his hand.	<i>Supportive</i>
May	Can you elaborate why it is annoying to work together with your friends in group work? (<i>Say more/explain</i>)	I used <i>wait time</i> as a talk move, which gave the student the opportunity to reflect on her own attitudes.	<i>Supportive</i>
Siw	How is the learning environment in your class? (<i>Challenge</i>)	I felt that this very moment set a standard for the rest of our conversation. She opened up more and continued to elaborate on her answers.	<i>Collective</i>
Ian	How do you feel about working with the others in the class? (<i>Challenge</i>)	I elicited the student's awareness of his own attitudes towards group work.	<i>Collective</i>
Ola	What else do you do in your spare time? (<i>Say more/explain</i>)	I became familiar with the student on a deeper level.	<i>Purposeful</i>
Lilly	Talking about noise in class: What do you mean about that? (<i>Challenge</i>)	The student put forward his own opinions.	<i>Purposeful</i>
Sam	What can you contribute to improve the language subject? (<i>Challenge</i>)	I give the student opportunities to take responsibility for his own learning.	<i>Reciprocal</i>
Ben	How can you then work to get a better attitude towards the subject? (<i>Challenge</i>)	He realises the importance of his own attitudes in relation to relationships.	<i>Reciprocal</i>

We found that four of Alexander's (2020) principles of dialogic talk – that is, the 'collective', 'supportive', 'purposeful', and 'reciprocal' principles (p. 131) – can be linked to the PSTs' 'used moments' and 'dialogue-friendly talk moves'. The principles characterise a classroom culture in which good dialogues are most likely to flourish. The learning potential has the best chance of being realised, and students will feel comfortable expressing and discussing ideas (Alexander, 2018, p. 566).

Table 13.4 shows that *press for reasoning*, *say more*, and *challenge* are the three talk moves that the twelve PSTs put forward when asked to present a successful moment in their ISTCs. The PSTs described their 'used moments' by highlighting a question that led to a continuation of the dialogue and stimulated the students to deepen their own reasoning. The data show that most PSTs started their 'used moment' with an open and authentic question, initiated by 'How?', 'Why?', or 'What if?'. According to Alexander (2018), this encourages 'reasoning, speculation and more active cognitive and indeed social engagement' (p. 583).

As Ben puts it in his reflective text: 'An ISTC is a valuable tool to understand and meet the student in the best possible way'. By using 'dialogue-friendly talk moves' he gets better acquainted with the student and has a more solid plan for arranging further learning activities for this student.

The PSTs chose their successful moments ('used moments') because these worked well in their ISTCs, and the student responded positively. Each of the 12 PSTs identified and highlighted a moment that they felt was successful. This may indicate that they had managed to create an atmosphere in which the students felt safe and comfortable, which is essential in any dialogic conversation (Alexander, 2020; Hennessy et al., 2021, p. 187).

Press for reasoning and *challenge* are the talk moves that deepen the students' reasoning. Based on O'Connor and Michaels' (2019, p. 174) research, these talk moves are easy to learn. This may explain why most of the PSTs chose one of these talk moves as a 'dialogue-friendly talk move'.

If we look at Ben's 'used moment' in which he asked how the student could work to obtain a better attitude towards a specific subject, he challenges the student to find a solution:

He (the student) had previously talked about having a bad relationship towards one of his teachers, but after our conversation he (the student) realised that his attitudes reflected on himself. He

understood that if he changed his attitudes, he could have a better relationship with the teacher in that subject.

By using the talk move *challenge*, Ben opens the conversation about the student's attitude. The student could have chosen not to respond. The response suggests that the student felt safe and had a good relationship with Ben, and therefore changed his attitude during the ISTC (Hennessy et al., 2021, p. 187). This corresponds with the *reciprocal principle*, which is based on mutual respect (Alexander, 2020, p. 131).

The *purposeful* was the fourth principle that we identified as 'a dialogue-friendly talk move'. The purposeful is referred to as an open dialogue that is structured with specific learning goals in view (Alexander, 2018, p. 566; Alexander, 2020, p. 131).

Ola's question relates to the student's leisure time. He used the talk move *say more*, which is described by O'Connor and Michaels (2019) as a talk move that provides 'all listeners with more information or clarification', lets 'the student know that the teacher wants to understand', and makes 'the student feel more entitled to participate as the class goes forward' (p. 167). Ola argued that this was important for his own understanding of the student, and for the student's further learning. He described the talk move *say more* as his successful 'used moment': 'I got to know the student at a deeper level, and I think the ISTC can be seen as a tool for classroom management and building relationship' (Ola).

Say more/explain can be challenging for both teachers and students, but it also seems to be a talk move that can provide new insights for both. This use of *say more/explain* shows how meanings and understanding are created in and through language (Dysthe, 1997). We interpret that it is important for Ola to know this student at a deeper level, to strengthen the relationship with his student (Sabol & Pianta, 2012; Limstrand, 2006).

The *purposeful principle* is, in the research literature on dialogic talk, mostly related to gaining increased understanding in a specific subject, but it can also have a broader pedagogical goal, as shown in Ola's argumentation here (Kim & Wilkinson, 2019, p. 79).

We have put forward two interesting examples of 'ISTC-friendly talk moves'. Table 13.4 shows that all PSTs were able to use talk moves that we can connect to four of Alexander's (2020, p. 131) principles (the *supportive*, *collective*, *purposeful*, and *reciprocal*) in their texts. In sum, the data show that the ISTCs can fairly be called dialogic.

However, the findings show that the PSTs did not manage to act upon all critical moments (Myhill & Warren, 2005) in their ISTCs, which will be under scrutiny in the following section.

‘Lost moments’: Lack of cumulative and deliberative principles

In our study, we examine, inter alia, lost moments, that is, critical moments ‘where an opportunity to build on a child’s response has been missed’ (Myhill & Warren, 2005, p. 59). The PSTs’ reasons behind ‘lost moments’ can, in one way or another, be linked to a sequence in their ISTCs where the dialogue stopped.

In this context, some PSTs reported a lack of confidence and the ability to ask ‘a spontaneous follow up question’, whilst others reported on the troublesome talk move *wait time*, articulated as ‘the silence was too long’. Their reasoning can be understood as a lack of cumulative skills.

The cumulative principle is explained as a ‘way the participants build on their own and each other’s contributions and chain them into coherent lines of thinking and understanding’ (Alexander, 2018, p. 566). It is a difficult principle to enact because it tests the PSTs’ insights into the students’ understandings and demands interactive skills to take those understandings forward.

As explained by Alexander (2020), *cumulative* means that teachers and students build on the insights they and others already have, so that understanding is extended into coherent lines of thought and questioning. Three of the PSTs linked their ‘lost moment’ to the fact that they did not manage to make ‘a spontaneous follow-up question’. Here is Evy’s reasoning.

I was not able to ask a follow-up question. (We were talking about the school road). This occurred in the beginning of the ISTC. I got more comfortable with the student later in the conversation. I think this is why it became a ‘lost moment’.

The PST was not comfortable in the setting and did not build on the student’s experience with the school road. Dialogic talk requires teachers to have the skills to improvise (Erickson, 2011), and to make decisions and revisions to find the most appropriate stepping stones to further students’ understanding, and allow them the freedom to explore (Boyd, 2012, p. 48).

Evy did not manage to do this. She lost the possibility to extend this dialogue, all of which might be linked to the cumulative principle. The cumulative principle is probably the most difficult to implement, as it requires the teacher to have a good understanding of where the talk is going at any given moment. It needs 'knowledge of the desired outcome and the ability to scaffold children's thinking towards that outcome' (Alexander, 2020, p. 132).

This shows that the *cumulative principle* requires a broader and deeper understanding of the student than it is possible to get during one single practicum period. In other words, more rehearsal will be required in TE to achieve this level of dialogic talk.

'The silence was too long'

Two of the PSTs reported on the talk move *wait time* as a reason for their 'lost moments'. They became stressed and did not manage to give the student a moment to think and deepen his argumentation. In the category 'the silence was too long', the PSTs were not able to listen and wait for the student's next step.

Alexander emphasises that an important part of the dialogue is for the teacher to allow appropriate *wait time* (Alexander, 2018, p. 583). If the PSTs did not master *wait time*, the ongoing dialogue stopped, and the PSTs were unable to ensure the student's needs, requirements, and thoughts (Hennessy et al., 2021).

On the other hand, merely withholding the teacher's response slightly longer than what is natural in the situation may be perceived as a break with expectations of normality, and as potentially detrimental to dialogic ISTCs.

In our findings, we do not have any results that point to the *deliberative principle*. One reason for this may be the given design of the compulsory task, in which the PSTs were not specifically asked to solve a common problem or dilemma, and to elaborate on pros and cons.

Conclusion

Our research shows that the PSTs emphasised the talk moves *press for reasoning*, *say more/explain*, and *challenge* when reporting on successfully 'used

moments'. These talk moves provide a basis for dialogue and mutual participation. Recent research (Howe et al., 2019; Hennessy et al., 2021) has shown that questioning and elaboration are productive talk moves for student participation, and therefore important in ISTCs. The PSTs managed to implement talk moves and could, to some extent, promote a good dialogue. However, not all talk moves that usually play an important role in a dialogue were shown in our data.

More rehearsal during TE is probably needed both in relation to *wait time* and the skills to improvise, for example, to use 'spontaneous follow-up questions'. In other words, the present study uncovered not only the need for PSTs to rehearse and implement 'ISTC-friendly talk moves', but also the need to learn more about interactive conversations in general.

The talk moves linked to 'used moments' demonstrate the supportive nature of dialogic talk, while the reasons for 'lost moments' were primarily related to lack of cumulative skills. In the implementation of ISTCs, it is important to master a repertoire of talk moves that embrace most of Alexander's (2020) six principles of dialogic talk. TE should emphasise this approach in future assessments.

Working with the assignment 'My student' in the various phases helped increase the PSTs' awareness of how they can use talk moves to promote both good student-teacher relationships, and student participation in ISTCs. Moreover, the results indicate that PSTs can gain increased awareness of their own dialogue skills when articulating the possibilities and shortcomings of both conducting and analysing an ISTC. The implication for teacher educators here is to develop their role as a mentor and catalyst for dialogic change when rehearsing and reflecting with PSTs on enacted ISTCs.

Based on these findings, the obligatory assignment 'My Student' represents a possible answer to two important calls. First, TE must focus more clearly on student involvement. In fact, 'student participation should be a specific topic in teacher education and included in PSTs' placement' (Faanessen et al., 2022, p. 7). Second, our study provides an example of 'expanded practice' (Advisory Council for Teacher Education, 2024) in TE. Indeed, the use of the assignment 'My Student' shows that PSTs, through experimentation, active participation, exploration, and rehearsing in authentic situations, developed a repertoire that may help strengthen their professional development and competence as future teachers.

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Part 4

Empirical Aspects of Rehearsing Across Teacher Education Programs

