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Motivational Features of Extracurricular Learning Sessions in All-day Schools With and Without Peer Tutoring From Different Perspectives

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Nora Heyne, Jacqueline Hacking, and Isabell Schrick

Abstract

In Germany, the number of all-day schools with extracurricular learning opportunities is expanding in order to foster pupils' competences and compensate for individual disadvantages. In this context, peer tutoring such as that implemented in the "SamS" program, in which 8th graders serve as tutors in extracurricular learning sessions with younger pupils, is seen as a promising approach. This study investigates how tutors, teachers, and pupils as well as external observers perceive the sessions with and without tutors. Based on the current literature on beneficial features of learning (sessions), we first addressed the question of how the participating pupils estimated motivational features compared to teachers, tutors, or external observers' video-based ratings. We expected pupils to perceive more motivating features in learning sessions with peer tutors than without them. Our results based on questionnaires completed by pupils ($N = 63$), tutors ($N = 4$) and teachers ($N = 5$) and video-based ratings by external observers showed that the judgments of participants in the same sessions and external observers agreed to a large degree. Analyses of the judgments of repeatedly surveyed pupils ($N = 33$) indicated a significantly greater perceived presence of motivational features in learning sessions without peer tutoring in contrast to peer-tutored sessions. Therefore, the results suggest that the SamS was not able to fully exhaust the motivating potential of peer tutoring in extracurricular learning sessions; further optimization and research are needed.

1   Theoretical Background

1.1   Problem

All-day schools have become highly significant in Germany today, and ques-tions concerning the conditions at such schools and their effects are of increas-ing public and scientific interest. These schools are characterized by full-day programming for pupils with reference to the curriculum (at least seven hours per day, three days per week), and the provision of lunch (KMK, 2017). Not least because of the unsatisfying results of the 2000 PISA study, all-day schools have extended their offers of extracurricular learning sessions and further activities in order to foster pupils' competences and compensate for the disadvantages induced by students' social or migration backgrounds (Radisch, Stecher, Fischer, & Klieme, 2014).

Peer tutoring within these extracurricular learning sessions, as was implemented in the SamS program (Schüler/innen arbeiten mit Schüler/inne/n [pupils work with pupils]), is one promising approach for reaching the aforementioned goals. This program was introduced in Germany by Kastner-Püschel (2013) in 2005 in order to simultaneously foster young children's competences and older students' participation. In contrast to teacher-directed extracurricular learning, in SamS, extracurricular learning sessions for 5th and 6th graders are supervised by tandems of one teacher and one peer tutor. Within these learning sessions, pupils choose individual areas of emphasis and learning goals with respect to homework, learning materials, or preparing classwork without any performance pressure. In addition, pupils can work together or receive feedback from their teachers or tutors. For pupils, participation in these learning sessions is voluntary and uncredited.

Since the SamS program had not been previously evaluated, this study investigated extracurricular learning sessions with a peer tutor (as in SamS) and without from the perspectives of pupils, tutors, teachers, and external observers. While the main project took into account a number of instructional features, this study focuses on motivational features of the extracurricular learning sessions with and without peer tutors, as they are important prerequisites for learning and are expected to be key features of peer-tutored learning.

1.2   Extracurricular Learning Sessions in All-Day School

In Germany, extracurricular learning sessions in all-day school programs have become more important in recent decades, and many approaches have emerged. Usually, these learning sessions are conducted regularly at fixed times in the

afternoon. They provide a teacher-supported framework for pupils to explore self-selected topics, e.g., homework from the curriculum or other projects. In general, the quality of extracurricular learning sessions in all-day schools has three dimensions: 1) structure, 2) support and orientation offerings, and 3) opportunities for activation and learning (Radisch, Stecher, Klieme, & Kühnbach, 2007; Radisch et al., 2014). The structure of extracurricular activities refers to the learning environment, which should offer a reliable and secure context with supervision by adults and follow consistent rules. The support and orientation dimension refers to the appreciative climate of interpersonal interactions, which fosters affiliation, determines social norms, and promotes individual growth. The third dimension of extracurricular activities concerns offering students a variety of challenges and opportunities to improve their physical, intellectual, emotional, and social skills and capabilities. Previous studies indicated positive effects of extracurricular programs on students' motivation and performance due to the adaptation of learning goals to individual needs and opportunities of self-regulation (Feldmann, 1980). Furthermore, opportunities of cooperation, an open design, and the avoidance of achievement pressure are assumed to strengthen students' affiliation, improve the learning atmosphere within groups, and facilitate students' motivation. In addition, extracurricular programs are expected to have positive effects because they allow for learning in various pupil-oriented and activating ways (Kielblock, Gaiser, & Stecher, 2015). Nevertheless, not all of the aforementioned features of extracurricular sessions have been investigated in terms of their impact on learning.

In contrast, the importance for learning of similar features has been investigated with respect to classroom teaching. Because extracurricular learning follows similar principles to those that underlie classroom learning, classroom features that are important for learning success (Hattie, 2012; Helmke, 2012) are also assumed to be beneficial for extracurricular programs. For example, classroom management, learning atmosphere, clarity, cognitive activation, the management of heterogeneity and motivation should be just as important for extracurricular learning as they are for learning in the classroom. According to Helmke and colleagues (2014), how these instructional features are perceived by the pupils and instructors is also important. Therefore, high agreement in perceptions among all participants with respect to each criterion is assumed to be beneficial for learning. In order to evaluate the level of agreement among all participants' perceptions of instruction, Helmke and colleagues (2014) developed the EMU program, or the "Evidenzbasierte Methoden der Unterrichtsdiagnostik und -entwicklung" (Evidence-based methods for the diagnosis and development of classroom instruction). This program employs questionnaires to assess the mentioned features of classroom teaching. Furthermore, it provides an Excel syntax for plotting the perspectives of all participants in a lesson as well as further

observers. According to this concept, divergent judgments in particular are seen as a starting point for discussions within learning groups and for optimizing instructional quality.

The motivational features of learning settings are an object of focus because they are assumed to be important prerequisites for learning (Klauer & Leutner, 2007). Therefore, instructors should foster motivation in every learning situation (Helmke, 2012), in particular by replacing instructor-paced and extrinsic motivation with self-regulated motivation, i.e., supporting pupils in motivating themselves for specific tasks. For example, striving to win praise could be replaced with intrinsic interest, joy in learning, curiosity or the need for cognition. However, if intrinsic motivation cannot be activated, extrinsic motivation can also be stimulated to initiate learning (Weinert & Helmke, 1997). According to previous research, learning motivation can also be enhanced by varying learning methods and reinforcement measures such as positive feedback, praise or incentives (Helmke, 2012). Furthermore, the instructor's enthusiasm and interest for the subject can – moderated by processes of identification – stimulate pupils' interests and hence their motivation (Helmke, 2012).

1.3 Peer Tutoring

Peer tutoring has long been the subject of international research. Previous studies have defined it in various ways and focused on different features. According to Topping (2005, p. 631), peer learning is defined as "the acquisition of knowledge and skill through active helping and supporting among status equals or matched companions." In his concept, Topping (2005) assumed that pupils and tutors were members of similar social groups and that tutors were not professional teachers. Furthermore, reciprocal influences among all peers were expected. With respect to further concepts (e.g., Ten Cate & Durning, 2007; Topping & Ehly, 2001), peer tutoring also varies with regard to the learning content (curricular vs. non-curricular), age and capabilities of participants (same or different), group sizes, and reinforcement (intrinsic vs. extrinsic). According to previous meta-analyses, peer tutoring can have positive effects on tutors as well as tutees independent of age (Topping, 1996). Several studies have found positive effects on pupils' achievement, but the methods used have occasionally been criticized (Rohrbeck, Ginsburg-Block, Fantuzzo, & Miller, 2003).

1.4   Peer Tutoring in Extracurricular Learning Sessions: The SamS Program

With reference to Topping (2005), the SamS program is a peer learning concept in which pupils acquire capabilities through active support from status equals. Pupils and tutors are members of similar social groups within common contexts at school. The concept can be characterized as "curricular", as the topics of the learning sessions can be drawn from school curricula. Because students of different ages and capabilities work together in small groups, the SamS program is characterized by cross-age and cross-ability small group learning settings. As tutors participate voluntarily but also receive small stipends, the SamS is both intrinsically and extrinsically reinforced with respect to the tutors, whereas pupils take part voluntarily. Because the SamS program takes place within extracurricular learning sessions at school, the aforementioned features of extracurricular learning are also present in the program. For pupils, it provides a structured learning environment and opportunities for support, orientation, activation, and learning. Furthermore, the extracurricular learning sessions with peer tutors can be described according to dimensions known to be relevant for learning from classroom research, e.g., classroom management, learning atmosphere, clarity, activation, management of heterogeneity and motivation. In addition to these features, the participation of tutors as role models for pupils is characteristic of peer-tutored learning.
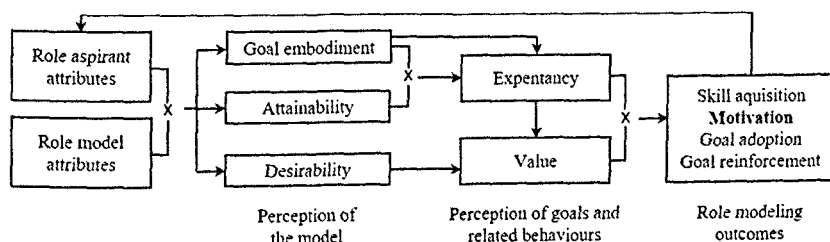

Figure 1: Motivational Theory of Role Modeling (modified from Morgenroth, Ryan, & Peters, 2015)

Particularly with respect to role modeling, it is expected that tutors' behavior and goals can influence their fellow pupils more easily than those of teachers. Because peer tutors are members of similar social groups, and hence offer role models for identification, their interests are assumed to stimulate the interests of the pupils. According to Morgenroth, Ryan, and Peters (2015, p. 465), "role models are often seen as a way of motivating individuals to perform novel behaviors and inspire

them to set ambitious goals." The underlying process involves the student (role aspirant) perceiving features of the role model (see Figure 1). Particularly in the case of a perceived similarity, when the model's behavior and goals are worth striving for (high expectation), socially accepted (high value), and attainable from the role aspirant's perspective, the model's behavior and goals are more likely to be imitated and motivation is more likely to be enhanced (Bandura, 1969; Morgenroth et al., 2015). Therefore, the motivational features of extracurricular learning sessions with peer tutoring should differ from those of programs without peer tutoring.

1.5 Questions About Motivational Features of Extracurricular Learning Sessions With and Without Peer Tutoring

Against this theoretical background, this study focused on different motivational features of extracurricular learning sessions with and without peer tutors. First, the judgments of all participating tutors, teachers, pupils and external observers were plotted descriptively. We sought to answer the question of how strongly pupils vs. tutors or teachers agreed with respect to their judgments of the motivational features of the learning sessions. Additionally, these judgments were compared to the external observers' assessments. According to Helmke and colleagues (2014), high agreement in participants' judgments is beneficial for learning. By contrast, divergence is recommended to be used as a starting point for discussions within learning groups in order to find measures to optimize instructional design.

Secondly, the pupils' judgments of the motivational features of learning sessions with and without peer tutors were compared. The core question was whether pupils perceive the motivational features differently under the two conditions. According to the presented literature, tutors, as role models, are expected to enhance pupils' learning behavior and motivation (Morgenroth et al., 2015; Rohrbeck et al., 2003). Therefore, it was assumed that the motivational features of learning sessions with peer tutors would be judged higher than those of sessions without peer tutors.

2 Methods

2.1 Design

These research questions were investigated in a cross-sectional study with two measurement points during the first school term in 2017/2018. Data on the

features of learning sessions in an integrated school[1] in Germany were captured by means of questionnaires for pupils, teachers, and tutors as well as video-based ratings by external observers. The recorded learning sessions were conducted in across-class learning groups of 16 to 21 pupils ($N = 9$). This sample entailed two learning sessions with each of four teachers with the same learning groups on two different days. While one of the learning sessions was given without peer tutoring, the other was held with one additional peer tutor.[2] A further learning session was led by a fifth teacher. Because this teacher was not used to teaching with a peer tutor, he did not conduct a second learning session with a tutor. All learning sessions were video-recorded and had a total duration of 7 hours and 13 minutes ($M = 48$ minutes; $SD = 6$). Afterwards, all learning sessions were rated by external observers. Most pupils judged the session to be representative (with tutor: by 67% of the pupils; without: 69%). The questionnaires on the learning sessions were administered to all participating pupils, tutors and teachers immediately after the sessions. In order to avoid variation across learning sessions, identical verbal instructions on the use of the questionnaires were given to all participants at the beginning of each learning session. One further questionnaire was administered to capture participants' demographic features.

2.2   Instruments

The questionnaire for assessing the features of the learning sessions was developed on the basis of existing instruments, specifically the questionnaire for the EMU program (Helmke et al., 2014). The observation criteria from this instrument were adapted with respect to extracurricular learning sessions and supplemented by adding further characteristic features, e.g., related to role models (cf. Bandura, 1969) and opportunities for cooperation (Kielblock et al., 2015). The resulting questionnaire contained scales for eight different features, including one scale on motivation which was used in this study. For this scale, pupils, teachers, and tutors assessed four items on a 4-point scale ranging from "do not agree" to "completely agree". In line with the presented literature (Helmke, 2012), these items assessed variation in learning methods, motivation to complete demanding tasks, praise for achievement, and instructors' interests and

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1   Integrated schools (integrierte Gesamtschule) are a specific type of school in Germany that offers instruction for different educational qualifications, e.g., vocational secondary school or A-level.

2   Beforehand, the participating tutors took part in a preparation workshop for SamS peer tutors.

enthusiasm for the subject (see Table 1). The scale had satisfactory reliability[3] (Cronbach's alpha, see Table 2).

Table 1: Items on Motivational Features of Extracurricular Learning Sessions

	Items
1	The teacher/ tutor provides a rich variety of learning opportunities, e.g., by using figurative language and various learning methods.
2	The teacher/ tutor is able to motivate us for tedious tasks.
3	The teacher/ tutor honors correct solutions, ideas and other contributions of the pupils.
4	The teacher/ tutor shows enthusiastic behavior and strong interest with respect to the subject.

Note. Items are translated analogously from German. They had to be answered at a 4-point-scale, ranging from not agreeing to completely agreeing. Questionnaires entailed either questions on teachers or tutors only.

Table 2: Pupils' Judgments on Motivational Features of Extracurricular Learning Sessions

Scale	N	M	SD	min	max	α
Motivation with Teacher and Tutor	46	2.34	0.71	0.00	3.00	.73
Motivation with Teacher Only	61	2.30	0.61	0.00	3.00	.71

Note. N = number of participants in each condition (samples of students in both conditions differ partly because of times of absence); M = Mean; SD = standard deviation, *min* = Minima; *max* = Maxima; α = Cronbachs Alpha (estimated of judgments of all participating pupils in each condition).

The rating instrument for the video-based observations of the learning sessions' features was developed on the basis of similar instruments, e.g., the rating system for classroom observations by Helmke and colleagues (2007) and the observation system by Heyne (2014). Observable criteria for eight characteristic features of extracurricular learning sessions analogous to those in the questionnaires were defined, including criteria for motivational features. The observers judged the occurrence of these features on a 4-point scale ranging from "is completely true" (3) to "is not true" (0) after watching the whole lesson. Because the observers were requested to make comprehensive judgments, drawing conclusions on the basis of distinct observable behaviors, this rating can be considered as a high-inference instrument (Clausen, 2002). It was conducted on the basis of video-taped learning sessions by two trained observers who achieved a satisfactory

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3   Because the sample was very small, the Cronbach's alpha has to be interpreted with care.

interrater reliability (Wirtz & Caspar, 2002), particularly with respect to the motivational features of the extracurricular learning sessions ($ICC = .75$).

The demographic questionnaires included questions on participants' gender, age, birthplace, native language, and social and migration background. The resulting data were used for sample description and to estimate the representativeness of the investigated learning sessions.

2.3   Sample

The study sample comprised 5th and 6th grade pupils at an integrated school in Germany ($N_{pupils} = 63$; 30 girls, 33 boys) who took part in the study voluntarily. They were between 9 and 13 years old ($M = 10.6$; $SD = 0.75$; information for one person is missing). Eighty-three percent of the children were born in Germany; about 8 percent had a migration background, and a further 10 percent did not give any information about their background. Seventy percent of the students spoke German as their native language, and 27 percent had a bilingual background (information on two further children was missing). All of the children took part in at least one of the recorded learning sessions and judged its features. Due to a high rate of missing pupils[4] at one measurement point, only about half of the sample took part in the learning sessions under both conditions ($N_{pupils} = 33$). These pupils' judgments were used to investigate differences in perceptions of the learning sessions with and without peer tutoring. Four pupils' answers had to be excluded from the analyses because of erroneous answer patterns. The teacher sample ($N = 5$) consisted of three men and two women between 28 and 57 years old ($M = 39$; $SD = 12.19$). The tutor sample ($N = 4$) comprised two boys and two girls aged 15 and 16 years ($M = 15.67$; $SD = 0.58$). All teachers and tutors were born in Germany and spoke German as their native language (information on one tutor is missing).

2.4   Data Analysis

In order to answer the first set of questions, the data were evaluated by means of the multi-perspective profile plots developed for the EMU program, i.e., by using the provided Excel syntax (Helmke et al., 2014). These plots are labeled "multi-perspective" because they visualize (the average and standard deviation of) the judgments of pupils compared to tutors or teachers and further observers. They

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4   The children's absence was due to illness or attendance of other remedial teaching sessions.

are termed "profile plots" because they show persons' judgments with respect to various criteria.

In order to answer the second set of questions, the contributions of the variables and further analyses were conducted by means of SPSS (2006). Since the prerequisites for parametric tests were not fulfilled (normal and heterogeneous distribution), the non-parametric Wilcoxon test was used to compare the pupils' judgments of the learning sessions with and without peer tutoring, and hence to test whether the central tendencies of the two samples differed significantly.

3   Results

3.1   Multi-Perspective Profile Plots Focusing on Motivational Features

In order to answer the first set of questions, we provide an overview of the judgments of the pupils, the teacher or tutor, and external observers with respect to motivational features as well as the relations between them by means of illustrative multi-perspective profile plots for one learning group. These plots visualize the assessments of the learning sessions by one teacher with and without a peer tutor (see Figures 2 and 3). As they indicate the extent to which the pupils, teacher or tutor, and external observer agree with respect to the evaluated criteria, these plots can indicate a need for communication in order to clarify misunderstandings or optimize instructional design.

For example, with respect to the motivational features of the learning session with the teacher only (see Figure 2), the plot indicates that the teacher and the pupils agreed in their perception of the variation of learning methods, while the external observers gave this aspect a lower score. The teacher and pupils also agreed at a high level with reference to the Items 3 and 4. For this learning session, the teacher and pupils gave discordant judgments with respect to motivation for demanding tasks (Item 2): Pupils rated this aspect at a higher level than the teacher did, who agreed with the external observer.

For the learning session with a tutor by this teacher, the pupils and tutor were in agreement concerning the motivational features to a great degree (see Figure 3), in particular with respect to the variation of learning methods (Item 1), motivation for demanding tasks (Item 2), and instructor's estimated interest and enthusiasm for the subject (Item 4). Furthermore, the plot indicates that the tutor slightly overestimated the occurrence of acknowledgement of achievement compared to the pupils' perception, which might be an interesting topic to discuss and optimize within the team.
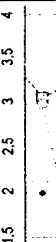
Learning session B (teacher condition) — Motivation

Profile of the average value: 1: I disagree/ 2: I'd rather disagree/ 3: I'd rather agree/ 4: I agree

#	Motivation	Pupils (Distribution of answers)	N	Observer (Distribution of answers)	N
1	The teacher provides a rich variety of learning opportunities, e.g. by using figurative language or various learning methods.	0 3 5 4	12	0 2 0 0	2
2	He or she is able to motivate us for tedious tasks.	0 3 3 6	12	0 0 2 0	2
3	The teacher honors correct solutions, ideas and other contributions of the pupils.	0 1 5 6	12		0
4	The teacher shows a lot of interest in the topic, e.g. by enthusiastic presentations.	0 3 2 7	12	0 1 1 0	2

Figure 2: Multi-Perspective Profile Plot for one Learning Session With the Teacher only (generated from the EMU program).
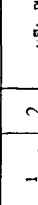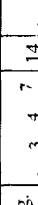
Learning session B (tutor condition)

Profile of the average value: 1: I disagree/ 2: I'd rather disagree/ 3: I'd rather agree/ 4: I agree

#	Profile of the average value	Pupils (Distribution of answers)	N	Observer (Distribution of answers)	N
1	The tutor provides a rich variety of learning opportunities, e.g. by using figurative language or various learning methods.	0 3 4 7	14	0 1 1 0	2
2	He or she is able to motivate us for tedious tasks.	0 3 3 7	13	0 0 2 0	2
3	The tutor honors correct solutions, ideas and other contributions of the pupils.	1 2 6 4	13	2 0 0 0	2
4	The tutor shows a lot of interest in the topic, e.g. by enthusiastic presentations.	0 0 4 10	14	0 0 2 0	2

Figure 3: Multi-Perspective Profile Plot for one Learning Session With one Teacher and one Tutor (generated from the EMU program).

3.2 Pupils' Judgments on the Motivational Features of Learning Sessions With and Without Peer Tutors

In order to compare the pupils' perceptions of the two conditions, descriptive results concerning the pupils' judgments of the motivational features of the learning sessions with and without peer tutors are presented in Table 3. At first glance, these results reveal differences in the assessments of the two conditions. In particular, the mean evaluation of learning sessions without peer tutoring was slightly higher and had a smaller standard deviation ($M = 2.40$; $SD = 0.55$) than the mean for the learning sessions with peer tutors ($M = 2.11$; $SD = 0.70$). Furthermore, the minimum scores in the two conditions differed, as only learning sessions with peer tutors received the lowest possible scores on motivational features (0); all learning sessions without peer tutors received higher scores (at least 1). Therefore, the descriptive results do not suggest differences in the assumed direction. Moreover, the Wilcoxon test indicated that evaluations of the two conditions differed significantly ($z = -2.10$; $p = 0.02$; one-tailed). Hence, the results showed that the motivational features of learning sessions without peer tutors were judged to be significantly higher than those of learning sessions with peer tutors, in contradiction of our hypothesis.

Table 3: Descriptive Results of the Pupils' Judgments on the Motivational Features of Learning Sessions With and Without a Tutor

Scale	M	SD	min	Max
Motivation with Teacher and Tutor	2.11	0.70	0.00	3.00
Motivation with Teacher Only	2.40	0.55	1.00	3.00

4 Discussion

4.1 Discussion of the Multi-Perspective Profile Plots With a Focus on the Motivational Features

As could be seen in the illustrative profile plots, motivational features in extracurricular learning sessions were judged similarly by pupils and the teacher as well as pupils and the tutor. The teacher and the pupils only disagreed in their evaluations of motivation to complete demanding tasks. Hence, we recommend discussing this issue within the team.

Additionally, the plots revealed that the external observers did not confirm the occurrence of acknowledgement in either condition. One possible reason for these judgments, which contradict the judgments of the other participants, could

be that the pupils, tutors, and teachers judged the learning sessions based on what they are used to seeing. Another reason for this result might be that the external observers did not hear all of the talking and praise between individuals, because some of interpersonal interactions in a whisper might have been missed by the recording. The video equipment used could not record talking at a very low volume without additional microphones. Finally, the high agreement between the pupils and the teacher or tutor indicates beneficial prerequisites of learning.

4.2 Discussion of the Pupils' Judgments on the Motivational Features of Learning Sessions With and Without Peer Tutors

The judgments of all participating pupils, teacher or tutors, and external observers indicated that the motivational features were realized to a high extent in both conditions, which might be an indicator of the high quality of the extracurricular learning sessions with and without peer tutors. Nevertheless, the motivational features of the learning sessions without peer tutors were judged at a higher level than the features of the learning sessions with peer tutors, contrary to our hypotheses. Therefore, the motivational features were not higher in the peer-tutored sessions as a result of role modeling and identification processes, as we had expected based on previous studies (Bandura, 1969; Morgenroth et al., 2015). These unexpected results might be caused by specific features of the teachers, tutors, learning groups (including high drop-out), or learning sessions in our sample, particularly in light of the small sample size. For example, more experienced teachers could be more used to motivating pupils by varying the learning methods in a pupil-oriented and activating manner (see Kielblock et al., 2015) or giving praise, and might hence outperform tutors without such experience. Teachers should also have stronger diagnostic competences and are therefore probably better at adapting to pupils' cognitive or emotional states, and thus at motivating, in accordance with Feldmann (1980). A further factor might be the teacher's popularity, which could also activate processes of role modeling and motivation which we assumed to be stronger for peer tutors. Because this study did not capture any information on these factors, we cannot estimate how strongly they influenced the results. It is not known how (intrinsically) motivated and interested the tutors were in the subject, and hence to what extent stimulating processes of role modeling and motivating pupils emerged. Furthermore, we lack information on how the participating pupils perceived the tutors' behavior and goals and whether they saw them as models to imitate.

4.3 Conclusion and Outlook

Further research is required to clarify the impact of these factors and ultimately account for the effects of features of extracurricular learning. Therefore, future studies should examine larger, more representative samples in order to deliver generalizable results. Furthermore, a longitudinal approach could provide more conclusive evidence on the stability of features and their effects on pupils as well as tutors. An experimental design including assessments of pupils' competences, motivation, and other characteristics would also provide data to answer the above-mentioned questions.

Nevertheless, the study offers a new perspective and instrument for video-based analyses of extracurricular learning sessions, with a focus on features that are relevant for learning. Furthermore, it provides first results on different participants' perceptions of the motivational features of extracurricular learning sessions with and without peer tutors. It indicates the degree to which pupils judge learning sessions with peer tutors within the SamS program to be motivating in comparison to learning sessions without peer tutoring. Further-more, the study provides results on the motivating characteristics of the investigated learning sessions from different participants' as well as external observers' perspectives. While scores were generally high, indicating that the learning sessions in both conditions were of good quality, the differences in evaluations between learning sessions with and without peer tutoring were surprising and in contradiction to our hypotheses. As motivation was judged to be higher in learning sessions without peer tutoring, the expected advantages of peer tutoring might not have been fully manifested in the SamS program. One possibility might be to have pupils select the participating tutors in order to improve the motivating potential of peer-tutored learning sessions by enhancing processes of role identification and motivation, and thus ultimately to meet the goals of all-day schools in Germany.

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