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WHAT PREDICTS SWEDISH TEACHERS´ DISPOSITION FOR TEXT TALK? A SURVEY STUDY.

Abstract: The significance of reading comprehension can hardly be overestimated. Nevertheless, teachers vary in their disposition or willingness to teach reading comprehension. A wealth of field experimental studies have confirmed the importance of text talk, in class or in teacher-guided small groups, for students´ reading comprehension. However, researchers have not yet fully explored what makes teachers use text talk in the classroom. This study aimed to describe and predict teachers´ disposition to use text talk. The study posited two hypotheses based on professional development theory and social capital theory. The data came from a survey study of 320 Swedish teachers (of grades 1 to 12). The study used (a) item response estimation for measurement and (b) linear regression for analysis. It was found that attitudes towards professional development varied with disposition for text talk, on average, after adjusting for other predictors. It was furthermore found that social capital varied with disposition for text talk, on average, after adjusting for other predictors. The conclusion is that the data offer support for both teacher development theory and social capital theory.

Key words: text talk, disposition, attitudes, social capital, professional development.

Introduction

The significance of reading comprehension can hardly be overestimated. Mastering reading comprehension skills is crucial for all social participation: good reading comprehension is needed in school for academic development, at work for problem-solving, for reading newspapers and novels, browsing the web, playing board games, and much, much more besides. Research has also documented the importance of teacher instruction in reading comprehension to enhance the development of students´ reading comprehension (e.g. Slavin et al., 2009). Several studies have confirmed the importance of teacher-guided text talk (Beck & McKeown, 2006; Palincsar & Brown, 1984). In short, the teachers' instructional behaviours scaffold students´ reading comprehension. However, several teachers still favour students reading texts silently by themselves, i.e. individually whereas others have embraced text talk in class or in teacher- guided small groups (Reichenberg, 2014).

Although research has examined guided reading instruction, and shown that text talk matters, little to no research has investigated what predicts text talk or, in other words, why some teachers have a disposition or willingness to favour text talk, whereas other teachers do not. Thus, researchers still lack knowledge about teachers´ disposition or willingness to conduct text talk in classrooms or in small groups. Understanding teachers´ disposition

towards text talk, may also help researchers incrementally to better understand what determines teachers' instructional behaviours generally.

Recently educational theory and research has proposed the positive association between attitudes towards professional development and teaching behaviours. Theory predicts that attitudes towards professional development for teaching mediate between teacher education and teaching (Desimone, 2009; Richter et al., 2014). However, teachers do not act in isolation. Innovative forms of participation-oriented teaching (e.g. text talk) that break with individualism (e.g. silent reading) depend on help from others, including others' social capital. Following the logic that everybody needs a little help (Fullan et al., 2015), this study argues that both attitudes to professional development and social capital predict teachers´ dispositions towards text talk.

The aim and research questions

This study aimed to describe and predict teachers´ disposition to text talk. The following research questions were formulated:

1. What characterizes teachers´ text talk disposition?
2. What is the relation between teachers' social capital and their disposition to text talk?
3. What is the relation between teachers' attitudes to professional development and their disposition to text talk?

Disposition has been mentioned several times. Dispositions include personality traits, values, and beliefs (Stephens, 2019). Drawing on Dewey, dispositions are defined as habits of mind, i.e. unconscious beliefs or willingness to act. Dispositions indicate the ability to learn from experiences. Along with dispositions, attitudes are considered. Attitudes are indicated by, among other things, one's evaluation of an object, person, action or process (Dewey, 2013).

In the following subsection, focus is on actual concepts in the study. Starting with text talk, and continuing with social capital and professional development.

The importance of teachers´ text talk in groups and classrooms

What is text talk?

Text talk refers to teachers´ and students´ collaborative talk about texts (Nystrand, 2006; Beck & McKeown, 2006; Guthrie et al, 1996). The two dominant approaches in structured text talk instruction are: strategies and content. Strategies instruction generally consists of teaching students strategies including summarizing, making inferences, and asking questions, and applying them on the text. Probably, the most well-known models for strategy instruction are reciprocal teaching (RT) (Palincsar & Brown, 1984) and transactional strategies (Pressley et al., 1992). Content instruction focuses on encouraging students (a) to reflect upon what they read and (b) to verbalize their ideas about the text through conversations. Models for content-based instruction are instructional conversations (Saunders & Goldenberg 1999) and questioning the author (QtA) (Beck & McKeown, 2006, McKeown et al., 2009). A key feature in QtA is to help students understand that a text is a collection of ideas written by a fallible author; therefore, the text may be ambiguous or incomplete. In this way, QtA makes texts less intimidating to students and encourages them to think critically while they read. Central to a QtA lesson is teachers using initiating and follow up queries to build students' understanding of a text during reading.

In both the strategy instruction and the content instruction the talk is guided by the teacher. Under the teacher´s guidance the students make meaning from the text. Consequently, structured text talk is very different from reading a whole text straight through silently in the classroom, followed by questions. Silent reading assumes that all students have been able to make sense of the text on their own, or that they can articulate the difficulties they have encountered in the text.

The differences between the models for structured text talk may be attributed to different theories of learning (social constructivism, cognitivism, etc.) or whether they focus on content or just reading comprehension strategies (Palincsar & Brown, 1984; McKeown et al., 2009). However, these differences may be regarded as nuances rather than fundamental differences. From an educational perspective, text talk should promote students´ reading comprehension, i.e. the ability to read beyond and between the lines.

Text talk have been shown to support students all over the world. Text talk advocates typically claim that struggling readers (e.g. students in the lower quartile) benefit the most from text talk interventions. Studies have also shown that students with mild to moderate intellectual disabilities benefit from text talk (Alfassi et al., 2009; van de Bos et al., 2007; Lundberg & Reichenberg, 2013).

What do we not know about teachers text talk in school?
However, we still lack knowledge about the frequency and predictors of teachers´ disposition towards text talk. Originators of text talk interventions claim that they have been inspired by real teachers (Beck et al., 1997; Beck & McKeown, 2006). Nevertheless, we do not know if the teachers conducting text talk make up a minority or a majority. Whereas most researchers would agree that teaching in reading instruction matters, research has yet to establish what predicts variation in teacher's disposition towards reading instruction. Text talk represents a special case of teacher instructional attitudes and behaviours. Consequently, predicting variation in teacher's disposition towards text talk, may help one to understand variation in teacher instructional attitudes and behaviours across school subjects. Thus the issue extends beyond subject specific concerns.

In this study, attention is drawn to the open question why teachers vary in their dispositions towards text talk. Although dispositions towards text talk may not account for teachers' actual behaviour in the classroom, dispositions do indicate teachers' propensity to work with text talk (Ajzen & Fishbein, 2000). Moreover, this study proposes to extend research on text talk in teaching by arguing for the importance of teachers' social capital and dispositions towards professional development. Consequently, the present study proposes a theoretical contribution by applying social capital theory and professional development theory to a new outcome, text talk. Accordingly, the theoretical scope concerning teachers´ performance in relation to text talk will be greatly extended if the two factors here studied are shown to have predictive value.

Teacher collaboration: The role of social capital

Social capital refers to the help and support one can gain from friends, families, colleagues, and acquaintances etc. Bourdieu suggests that social capital refers to the sum of contacts that aids a given individual (Bourdieu, 1986) within a "field" (e.g. education, economics, politics etc). Consequently, Bourdieu suggests a "field" dependent definition. By contrast, social

capital may be defined by its function, i.e. what it does (Coleman, 1988). Meaning that social capital includes behaviours of exchange that constitute obligations of helping behaviours. However, one may also extend the definition to include diffusion of ideas via teachers acting as brokers, e.g. teachers that adopt one pedagogical idea from one cluster (e.g. researchers) to another (e.g. teaching teams). Brokers are of considerable importance to social capital theory due to their central position in the diffusion or restriction of information flow. In the following, inspiration is drawn from the Coleman rather than the Bourdieuian tradition.

Social capital constitutes the foundation of teachers´ work. Teachers depend on their colleagues and principals. By contrast to the widespread myth, teachers do not work alone (Avalos, 2011; Tschannen-Moran & Gareis, 2015; Lortie, 2020). True, teachers teach solitary in the classroom. However, some teachers have teaching assistants, who may lend a helping hand. Outside of the classroom (staff room), teachers have their colleagues. Colleagues can offer advices and help to: lesson planning, instructional strategies, adaptation of textbooks, knowhow on teaching technologies, etc. Asking a colleague comes naturally as teachers at the same school tend to share the same teaching experiences and student population. Beyond colleagues, teachers depend on principals and other instructional leaders at the school (Tschannen-Moran & Gareis, 2015; Lortie, 2020).

Social capital correlates with diffusion of ideas and technologies at the workplace. Again and again, social capital seems to correlate with changes in instructional practices. Social capital can predict whether teachers adopt new technologies or leave them to gather dust. Here, a helping hand can be decisive. Social capital can also predict whether teachers adopt new instructional policies e.g. text talk. Here, social capital may act through peer pressure and social control (monitoring, sanctioning). In other words, "I do what my colleagues do," because of frequent contacts and liking (Fullan et al., 2015).

Extending social capital theory to the disposition for text talk seems to follow logically. Teachers who have a helping hand from colleagues or principals will probably display a greater disposition towards conducting text talk. Therefore, social capital diffuses educational ideas and technologies, such as text talk. Consequently the current study proposes a positive correlation between text talk and teachers´ social capital:

H1: *Greater social capital varies with greater disposition towards text talk, on average, after adjusting for teacher characteristics.*

Teachers´ Professional Development

Teachers´ learning does not end with teacher education programmes. Their *professional development* continues through their teacher career. Teachers´ professional development can be divided into formal and informal learning opportunities that deepen and extend teachers ´professional competence (Desimone, 2009; Richter et al., 2014).

Formal professional development concerns job training, course taking, seminars, workshops, lesson studies etc., often outside the workplace. Although, all workplace learning cannot be formalized in a course or learned from observation. Rather teachers need to learn by doing, i.e. experience, in other words informal learning (Dewey, 2013). Informal professional development concerns experience-based learning that promotes skills and attitudes towards professional development. Teachers learn: when planning lessons, collaborating in teacher

teams, hallway discussions, discussions in the staffroom, or when surfing the web for researching a lesson topic or reading books. However, these experiences cannot be on a diploma. Rather, workplace experience learning comes with the job.

Several theories of professional development exist. Recently, Desimone (2009) has proposed a unified framework that identifies the core pillars. The core pillars are: (a) content focus, (b) active learning, (c) coherence, (d) duration, and (e) collective participation. The present study focuses on informal professional development. Concerning the pillars the informal dimension of active learning, i.e. experience-based learning is stressed in the current study.
Desimone has proposed that formal professional development comes first. For example taking a course may not necessarily produce change. However, taking a course may increase the aptitude and dispositions towards learning on the job, i.e. professional development. These attitudes may then trigger changes in teaching (Desimone et al., 2002).
Applying Desimone´s theory to text talk follows straightforwardly:

H2: *Greater attitudes towards professional development vary with greater disposition towards text talk, on average, after adjusting for teacher characteristics.*

Data and Method

Sample

The sample consists of 320 Swedish teachers (non-random sample) of grades 1 to 12. Ages ranged from 25 to 65 years, with an average of 48 (SD=9.56). The age indicates a representative number for the target population (Swedish teachers). The experience (number of years of teaching) ranged from 1 to 42, with an average of 17 (SD=9.90). The sample seems somewhat more experienced than the target population (16 years) (The Organisation for Economic Co-operation and Development, 2019). The sample included 31 percent male teachers, slightly higher than the target population (29 percent). In all, the sample resembles the target population (The Organisation for Economic Co-operation and Development, 2019).

The sample lacks generalizability. However, we may still analyse patterns in the data. All analysis was conducted in R.

Variables and measurement

The descriptive statistics are included in Table 1. The variable will be described in the following.

Outcome Variable. The main outcome included three statements about text talk:

1. F40 "At our school, we stress the importance of talking about the texts students read in small groups without the teacher,"
2. F41 "At our school, we stress the importance of talking about the texts that students read in small groups with the teacher,"
3. F42 "At our school, we think it is important that students talk about the texts they read in class."

The common denominator of the statements concerns disposition to conduct text talk. In addition, all the statements favour teaching reading comprehension collectively as opposed to silent reading (i.e. individually). Note that all statements include "at our school." As such, we do not really capture the attitude of the individual teacher, but rather the disposition (or willingness) to engage in teaching text talk. Experimental research often attends to specific

subject area content or reading strategies (Beck & McKeown, 2006, Palincsar & Brown, 1984). The above statements do not make such a distinction, thus making them representative for all models for text talk.

Table 1. Descriptive statistics: means, medians, standard deviations, and interquartile range divided by two. SC = social capital, ATPD=attitudes towards professional development

		Means	**SD**	**Min**	**Max**
	Age	47.720	9.595	25.000	32.500
	Experience	16.729	9.893	1.000	21.000
		Medians	**IQR/2**	**Min**	**Max**
F24	ATPD: search the web for school research.	4.000	1.000	1.000	2.500
F25	ATPD: keep up to date about school research	4.000	0.500	2.000	2.500
F26	ATPD: keep up to date about research in mathematics	4.000	0.500	2.000	2.500
F27	ATPD: keep up to date about research reading writing	4.000	1.000	1.000	2.500
F28	ATPD: discuss current research with my colleagues.	4.000	0.500	2.000	2.500
F40	Text talk: Small groups	3.000	1.000	1.000	2.500
F41	Text talk: Small group teacher	4.000	0.500	1.000	2.500
F42	Text talk: Whole class	4.000	0.500	1.000	2.500
F31	SC: Discuss teaching colleagues	4.000	0.500	1.000	2.500
F52	SC: Discuss materials principal	4.000	1.000	1.000	2.500
F53	SC: Discuss materials colleagues	4.000	0.500	1.000	2.500

The response scale ranged from 1 (=*disagree*) to 5 (=*agree*), with neutral (=3). Because of the neutral response option the variables were considered unordered. Consequently, the variables were combined using a generalized partial credit model (GPCM). The GPCM will be described later.

Predictor Variable. The main predictor variable *professional development* included five statements:

1. F24 "I consider it important to search the web for school research."
2. F25 "I consider it important to keep up to date about school research. "
3. F26 " I consider it important to keep up to date about research about reading and writing."
4. F27 " I consider it important to keep up to date about research in mathematics."
5. F28 "I consider it important to discuss current research with my colleagues."

The five statements all include statements about keeping up-to-date with research, searching for research, and discussing research. Consequently, the measure captures the attitude towards professional development rather than the behaviour (e.g. course participation, job training, attending seminars, lesson studies). Attitudes come before the actual behaviour, and may be reflected in staffroom conversations, teacher meetings, and lesson planning at schools. This study considers that the statements capture the informal dimension of professional development as discussed by Desimone (2009). Again, the response scale ranged from 1 (=*Disagree*) to 5 (=*Agree*), with neutral (=3).

Next, *teacher social capital* included three statements:

1. F31 "I can discuss teaching with my colleagues at school."

2. F52 "I can discuss teaching materials with my principal."
3. F53 "I can discuss teaching materials with my colleagues. "

Each statement reflects the extent to which the teacher has colleagues that can help them. Having people who help you may be considered the hallmark of social capital, as social capital tends to be defined by its function. One downside with the measure may be the fact that two of the statements stress teaching materials. However, teaching materials statements add concreteness to the measurement. Once again, the response scale ranged from 1 (=*Disagree*) to 5 (=*Agree*) with neutral (=3).

In addition, *age* and *experience* were included for adjustment. Both were converted to z-scores. The variables then take on a standard deviation scale with a mean of zero. Standard deviations make more sense than scaling by one year. Age and experience predict professional development, along with several teacher outcomes, as age and experience represent differences in the teachers´ career stages. Adjusting for the two predictors seem crucial to avoid spurious correlations between the outcome and error term in the regression (Richter et al., 2014).

Finally, four dummies were included: special education (=1, none =0), male (=1, female=0), Swedish language teacher (=1, otherwise=0), English language teacher(=1, otherwise=0). One might suspect that language teachers and special educators should be more prone to teaching text talk (Westlund, 2013; Reichenberg & Andreassen, 2019). In total, 50 percent taught Swedish as a school subject. Roughly 26 percent taught English as a school subject and 14 percent were special educators. Special educators have an advanced level degree.
Measurement with generalized partial credit model. To scale the categorical variables Item response estimation was used. As all the categorical predictors included a neutral response, a measurement model that treats the variables accordingly was used. Consequently, the generalized partial credit model (GPCM) with the ltm-package was used (Rizopoulos, 2006). The GPCM may be described as analogous to a (confirmatory) factor analysis designed for categorical variables. The estimation treats the variables as a series of dummy variables to measure with pairwise difference, like a Rasch model (Rizopoulos, 2006).

The model includes three types of estimated parameters. First, we get four item-category parameters or intercepts (the fifth is used as a reference category) per statement. Second, we get one discrimination parameter per statement (analogous to factor loading coefficients). The discrimination parameter indicates how well the statement differentiates between those with high and low attitudes /dispositions. Finally, we get one factor score for each individual. Given the response pattern of the individual, we can impute plausible factor scores for each missing response. The factor score in the analysis was used.

We can interpret the factor score on a logit (log odds) scale. The GPCM fitted significantly better with the data compared to other models. A likelihood ratio test supported the difference. Approximately, the results hold in sample and out of sample. As both Akaike Information Criterion (out-of-sample) and Bayesian Information Criterion (in-sample) indicated a better fit, i.e. a lower number (Fox, 2015). The quality of the fit can be assessed by looking at the item category characteristic curve.

Data analysis

The analysis was conducted with linear regression, as the outcome variable had a normal distribution (and, more importantly, normal residuals). As the standard errors of the coefficient involve an extra computation step, bootstrapping, i.e. repeated sampling from the data with replacement was conducted. The standard deviation of the bootstrapped distribution replaces the standard error, and percentiles may be used to compute confidence intervals.

Results

Here, the results for the first, second, and third research questions are addressed. When interpreting the results, it is important to bear in mind the self-reporting nature of the survey responses.

Research question 1: Characterizing text talk disposition

To answer the first research question, a generalized partial credit model (GPCM) was estimated. The model estimated four category parameters analogous to intercepts. Each category parameter is compared to the reference category (i.e. disagree). Higher values indicate higher difficulties, whereas lower values indicate lower difficulties. The discrimination parameter indicates how well the measure distinguishes teachers with high from low disposition for text talk. This is analogous to loading coefficients in factor analysis. Table 2 reports the results for the three types of text talk.

Table 2. Generalized Partial Credit model for text talk. Difficulty category compared to the reference category. Discrimination parameter. For text talk in (a)groups, (b) in groups with teacher, and (c) in whole class.

	Text talk Group	**Text talk Group Teacher**	**Text talk Whole Class**
Category 1	-2.25	-2.42	-2.71
Category 2	-1.10	-0.91	-0.79
Category 3	0.29	-0.22	-0.47
Category 4	2.41	1.11	1.35
Discrimination	0.81	3.56	1.26

Of the three statements, teacher-guided text talk in small groups had the highest discrimination (in Table 2). In other words, this statement distinguishes well between teachers with greater disposition and those with low disposition. In terms of magnitude, the statement has excellent discrimination. Thereafter comes text talk with the whole class with a good discrimination. Text talk in small groups without a teacher had acceptable discrimination.

Response 5 (*agree*), compared to 1 (*disagree*), exhibited the highest relative difficulty for the teachers among all response categories. As expected, this holds for all statements about text talk.

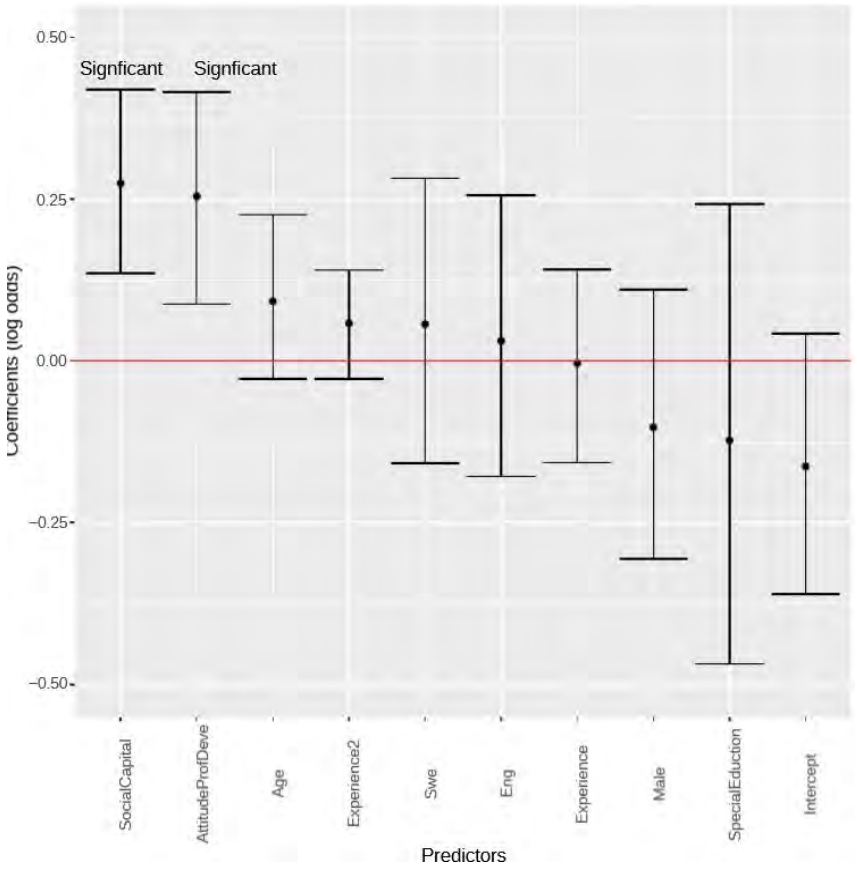
Information may be regarded as precision in item response models. The more information contained, the higher degree of precision. With regards to precision, teacher-guided text talk

in small groups had the highest precision. The item information curve suggests that text talk with the whole class contains decent amount of information. Whereas text talk in small groups without the teacher contain only adequate information, and therefore thus had the lowest precision (Baker, 2001).

Research questions 2 and 3: Predicting text talk disposition based on social capital and attitudes towards professional development

To answer the second and third research questions, a linear regression with bootstrapped standard errors was estimated. Figure 1 reports the linear regression model. On the y-axis the logit coefficients, or log odds for text talk were plotted. A higher score means a greater disposition towards text talk.[1] On the x-axis, the predictors were plotted by order of magnitude. The dots represent coefficients and bands indicate the 95 percent bootstrapped percentiles confidence intervals.

Figure 1. Plots of coefficients with 95% confidence intervals (bootstrapped percentiles). Outcome is on a log odds scale (disposition for text talk).



1 Logits typically range between +/- 3. To get an approximate z-score interpretation like a standardized coefficient, one may divide the logit coefficient by 1.7.

To simplify the interpretation, a reference line at zero was added. When the confidence intervals do not overlap with the reference line, we know that the coefficient is statistically significant. However, the reverse does not hold (overlapping intervals do not rule out statistical significance). [2]

As predicted, only two predictors do not overlap with the reference line: teachers´ social capital and attitudes to professional development. This means that, in 95 percent of the times, a zero is not included in coefficients for the bootstrapped distribution. In other words, two coefficients are statistically significant from zero.

In terms of magnitude, teachers´ social capital has a slightly larger magnitude, compared to attitudes towards professional development. One additional logit in teachers´ social capital varies, with 0.27 logits, on average, after adjusting for teacher characteristics. To simplify the interpretation the coefficient may be divided by 1.7 to approximate a standardized coefficient of roughly 0.16.

Next, consider attitudes towards professional development. One additional logit in attitudes to professional development varies with 0.25 logits, on average, after adjusting for teacher characteristics. Again, dividing by 1.7, one gets an approximate standardized coefficient of roughly 0.15. In educational terms, the two magnitudes seem to be small but not negligible either.

The model accounts for 12 percent of the variance in the outcome variable, i.e. proportional reduction in error variance (r-square). Consequently, much variance remains to be accounted for. [3] The Bayesian Information Criterion (in-sample prediction) and Akaike Information Criterion (out-of-sample prediction) compare the model with teachers´ social capital and attitudes to professional development (+ other predictors) to a model without them (other predictors). For the in-sample prediction, adding teachers´ social capital and attitudes to professional development reduce Bayesian Information Criterion by 20. With regards to out-sample prediction, adding teachers´ social capital and attitudes to professional development reduce Akaike Information criterion by 27. Both reductions seem noteworthy and indicate evidence in favour of the full model.

In summary, support exists for both hypotheses. The model indicates low predictor power in-sample, but the out-of-sample prediction seems noteworthy, in favour of teachers´ social capital and attitudes towards professional development.

Discussion and conclusions

This study described and predicted teachers´ dispositions to text talk. Text talk refers to teachers´ and students´ collaborative talk about texts to promote students´ reading comprehension (Nystrand, 2006; Beck & McKeown, 2006). Although many intervention studies have noted that structured text talk increases students´ reading comprehension (Palincsar & Brown 1984; Pressley et al., 1992; Guthrie et al., 1996; Saunders & Goldenberg,

2 In addition, the width of the confidence bands indicates the uncertainty (or precision) of the coefficient (unlike a p-value).
3 However, reduction in variance may be easy to interpret but not the best measure of the validity of model.

1999; Beck & McKeown, 2006; Alfassi et al., 2009; van de Bos et al., 2007; Reichenberg & Lundberg, 2013; Reichenberg, 2014), the studies do not predict the teachers´ disposition for text talk. Consequently, this study investigated what predicts teachers´ disposition for text talk.

The research questions were: What characterizes teachers´ text talk disposition? What is the relation between teachers' social capital and their disposition to text talk? What is the relation between teachers' attitudes to professional development and their disposition to text talk? Using regression analysis, this study analysed teachers' dispositions towards text talk.

The conclusions follow:

1. The teachers in this study had positive dispositions towards text talk, although, they had more positive dispositions to teacher-guided text talk in small groups.
2. Teacher-guided text talk in small groups contributed the more to teachers´ disposition to text talk, than text talk in whole class or in small groups without the teacher.
3. Greater social capital varied with greater disposition towards text talk. Greater attitudes to professional development varied with greater disposition for text talk. The results supported **H1** and **H2.**

Now the results will be considered in a broader educational context. Despite limitations, the present study suggests that the patterns have bearings on broad issues in educational research: teaching reading comprehension and more broadly understanding teachers´ instructional dispositions.

Researchers agree on the causal effect of text talk to promote reading comprehension (Palincsar & Brown, 1984; Pressley et al., 1992; Guthrie et al., 1996; Saunders & Goldenberg, 1999; Beck & McKeown, 2006; Alfassi et al., 2009; van de Bos et al., 2007; Lundberg & Reichenberg, 2013). Despite the agreement, researchers have overlooked what predicts teachers´ dispositions to engage in text talk. However, identifying the causal importance of text talk seems insufficient if we overlook how to promote text talk among teachers. Whereas causal studies may help to design instructional policies, we also need to know how such instructional polices would gain acceptance among teachers.

This study contributes to the large share of studies supporting the importance of social capital (Coleman, 1988, Fullan et al., 2015). Teachers' social capital continues to be one of the most important predictors of teachers´ dispositions, attitudes, and behaviours (Fullan et al., 2015). The average teacher seems to need a helping hand or a shoulder to lean on at work. Suggesting that teachers who have such a support from colleagues or principals can do more compared to the solitary teachers. The solitary teachers may have been important in the past (e.g. portrayed by Lortie, 2020), however the solitary argument does not hold in the current study. Although teachers most often instruct the class alone, they depend on colleagues and principals. Thus the findings lend support to the argument that schools with a strong collegial structure and support from leadership scaffolds changes in instruction.

The study provides support to the theory of professional development (Desimone, 2009). As Desimone predicts, teachers´ learning has consequences for instruction. Teachers who regularly search the web for the latest research on reading, writing, or mathematics have a greater disposition for teacher guided text talk in small groups. Consequently, the current study suggests that teachers´ informal learning, rather than formal learning, matters. From a

research perspective, the study shifts the attention from the predictors of teachers´ learning to its consequences; this is an understudied topic that may be of great importance. Next, one may consider the issue from a policy perspective. Although policy programmes target teachers´ formal learning, policy should perhaps also attend to teachers´ informal learning.

Although not the foci of the study, some noteworthy results concerning complementary explanations will be discussed. Contrary to the common belief that teachers in Swedish and English are more prone to conduct text talk than, for example, teachers in mathematics, sciences, and social sciences, there was no support for such a belief in this study (Westlund, 2013; Reichenberg & Andreassen, 2019). Another surprising result was that special educators were not prone to conduct text talk. Special educators encounter students daily who struggle with their reading. Moreover when they attended special education programmes they were exposed to research regarding reading comprehension programmes (Reichenberg & Andreassen, 2019).

The results cannot be understood properly without considering the study's limitations. First, the study uses a non-random sample. Accordingly, the data analysis cannot be generalized but rather addresses only patterns in the data. The patterns may still be instructive and guide future studies with the ambition to be generalized to the population of Swedish (or European) teachers. Second, the sample size may also be a concern. Ideally, the methods used require large samples. Third, the self-reporting nature of the survey responses may be a limitation (cf. The Organisation for Economic Co-operation and Development, 2019).

Policy Implications

Based on the study, two policy implications that may inform policy makers (school politicians, school leaders, teacher unions, teacher educators, educational agencies etc.) are suggested. First, to make a difference in instructional dispositions, policy makers need to support teachers´ informal learning by, for example, offering websites with easy-to-read educational research. Teachers do not necessarily need formal training or courses. Instead, allow teachers to learn when they have the willingness and the time. Second, do not target teachers as individuals, but rather, target schools. Teachers depend on the helping hand of their colleagues and principals. Adopting a new instructional policy will prove cumbersome if teacher have to carry the burden all alone. Everything gets easier with a little help from peers.

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