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How do teachers prioritize instructional goals?

Using the theory of planned behavior to explain goal coverage.

ABSTRACT

Drawing on the theory of planned behavior, this study investigates how teachers prioritize goals. A sample of 141 secondary school history teachers completed an interviewer-administered questionnaire about coverage of prominent goals in history education, and behavioral determinants associated with these goals. Multilevel analysis showed significant relations between goal coverage and two kinds of behavioral determinants: instrumental attitude and perceived behavioral control. In addition to outlining the way in which teachers prioritize goals, these findings suggest that existing divides between the goals emphasized by history education research, and those enacted in the classroom are the result of low perceived behavioral control.

1. INTRODUCTION

Much like other human behavior, teaching can be described as a process of setting goals, comparing progress to these goals, and adjusting behavior to attain them (Latham & Locke, 1991). Accordingly, studies have suggested that teachers' goals are the most proximate determinant of their instructional behavior (e.g., Westbroek, Janssen, & Doyle, 2017). More specifically, these studies indicate that teachers' behavior is shaped through a goal system: an interconnected, hierarchical system in which long-term goals are associated with increasingly concrete behavioral goals, until one reaches specific actions (Janssen, Westbroek, Doyle, & Van Driel, 2013). In this study, the focus lies on teachers' overarching instructional goals, which can be situated on the uppermost levels of the hierarchy.

Given the complexity of their work, teachers hold multiple instructional goals. At the same time, however, they tend to prioritize some of these goals over others (Schoenfeld, 2011). According to previous research, teachers' goal prioritization is an expression of beliefs about the nature of their work (e.g., Aguirre & Speer, 2000). In essence, beliefs are one's personal, conscious or unconscious, assumptions about reality (Pajares, 1992). They are usually relatively accurate, but not always, as they may suffer from issues such as invalid information, unconscious biases, or wishful thinking (Ajzen, 2015). The longer beliefs are held, the more they grow into a coherent system, and the harder they become to change (Kagan, 1992). As representations of how teachers perceive their work, beliefs thus form the frame of reference within which teachers set and evaluate goals of instruction (Cobb, 1986; Goodman, 1988).

Although there is common agreement that teachers' beliefs shape the way in which they prioritize instructional goals, the nature of this relation is still largely unclear (Aguirre & Speer, 2000; Törner et al., 2010). One reason why research on this topic is rather scarce, is that teachers hold myriad beliefs about various aspects of education (Pajares, 1992). Uncovering how beliefs work together to influence goal prioritization thus seems to be a daunting undertaking. This study aims to tackle this issue through a framework that draws on the theory of planned behavior.

2. THE THEORY OF PLANNED BEHAVIOR

The theory of planned behavior is based on the assumption that people usually behave in a sensible manner: they consider available information and possible consequences, in order to obtain favorable outcomes (Ajzen, 2005). As noted before, people do so by drawing on beliefs that are relevant to the behavior (Ajzen & Driver, 1991). According to the theory of planned behavior, however, the major determinants of behavior follow from three types of beliefs: personal, normative, and control-related beliefs. These determinants are subsequently referred to as: attitude, subjective norm, and perceived behavioral control (Ajzen, 1991).

Attitude represents a positive or negative evaluation of behavior and its outcomes (Ajzen, 2005). It is the function of personal beliefs, which assign a positive or negative value to a possible outcome of the behavior. The strength of each personal belief, or, in other words, the perceived probability that performance will effectively result in the outcome under consideration, then determines the extent to which it affects attitude (Ajzen, 1991). Research on the theory of planned behavior generally uses a global measure of attitude, but some studies have shown that it is useful to distinguish between an instrumental and affective component of attitude (e.g., Ajzen & Driver, 1991; French et al., 2005). Whereas instrumental attitude reflects a cognitive consideration of the extent to which behavior is advantageous, affective attitude refers to a positive or negative evaluation of the emotions associated with performing the behavior. (French et al., 2005). Put differently, this means that teachers can regard an instructional goal as important or unimportant for student development, and, independently, consider their coverage of the goal as an either pleasant or unpleasant experience (Ajzen & Driver, 1991).

Subjective norm refers to a perception of social pressure to perform certain behavior (Ajzen, 2005). It is the function of normative beliefs, which address the likelihood that a certain referent individual or group will approve of the behavior (Ajzen, 2005). The extent to which each of these normative beliefs influence subjective norm is directly proportional to one's motivation to comply with the referent individual or group in question (Ajzen, 1991).

Perceived behavioral control reflects a sense of ability to perform the behavior of interest (Ajzen, 2005). It is the function of control beliefs, which deal with the presence of resources or obstacles that can affect successful performance of the behavior (Ajzen, 1991). These control factors can exist either internal (e.g., content knowledge) or external (e.g., time constraints, student ability) to an individual (Ajzen, 2002). The extent to which each control belief weighs on perceived behavioral control is determined by the subjective power of the associated control factor to facilitate or hinder behavior (Ajzen & Driver, 1991). In summary, perceived behavioral control does not address the presence of resources and obstacles in itself, but instead focuses on beliefs whether one possesses the resources required to perform certain behavior, and is able to overcome whatever obstacles may be encountered (Ajzen, 2005).

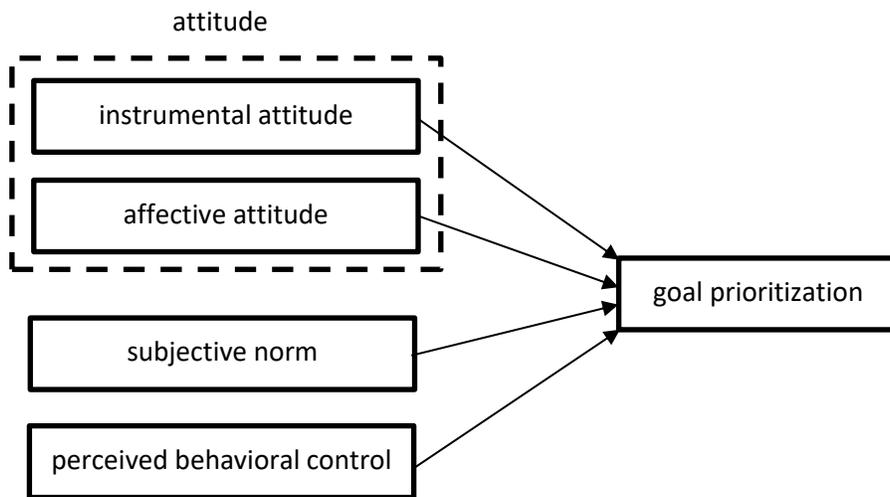


Figure 1. Goal prioritization according to the theory of planned behavior.

As Figure 1 shows, the theory of planned behavior suggests that teachers are more inclined to prioritize a goal when they value its outcomes, experience social pressure to cover it, and believe they are able to do so (Ajzen, 2005). Although these behavioral determinants are conceptually distinct, research indicates that the same information can affect all of them (Ajzen, 2005). As a result, studies often find that they are correlated to each another (e.g., Fishbein & Ajzen, 1981).

Empirical support for the theory of planned behavior can be found in studies using it to explain behavior in education (e.g., Knauder & Koschmieder, 2019; MacFarlane & Woolfson, 2013; Underwood, 2012), but also in other social domains, such as healthcare (e.g., Walker, Grimshaw, & Armstrong, 2001), tourism (e.g., Quintal, Lee, & Soutar, 2010), and marketing (e.g., Hansen, Jensen, & Solgaard, 2004). Furthermore, several meta-analyses confirm that the theory

of planned behavior can indeed help to explain a wide range of behaviors (e.g., Armitage & Conner, 2001; Cooke & French, 2008; McEachan, Conner, Taylor, & Lawton, 2011).

Even so, research on the theory of planned behavior also indicates that the relative importance of each determinant depends in part on the behavior under investigation (Ajzen, 1991, 2005). This study therefore aims to investigate how attitude, subjective norm, and perceived behavioral control affect the way in which teachers prioritize goals.

3. THE CASE OF HISTORY EDUCATION

As previous research has shown, teachers set their goals against the backdrop of particular subject domains (Grossman & Stodolsky, 1995). In this study, the subject of history is used as the case for examining teachers' goal prioritization. As will become clear, history education makes for a particularly interesting case, because of a divide between the instructional goals emphasized by history education research, and those covered in history classrooms (Cuban, 2016; Vansledright, 2011). Looking first at the perspective of academic research, a recent review study by van Boxtel and van Drie (2018) allows to outline four instructional goals with a respective focus on: historical knowledge, epistemological understanding, knowledge of metahistorical concepts and strategies, and interest in history.

Historical knowledge is a broad category of knowledge that includes knowledge of historical events, structures, themes, concepts, and chronology (van Boxtel & van Drie, 2018). Together, they form accounts of history, which describe or explain what happened, who was involved, when everything happened and in what larger historical context it can be framed, and what it all means when considered as a whole (VanSledright & Limón, 2006).

Epistemological understanding refers to knowledge of the assumptions that underlie reasoning within the domain of history. It is concerned with the nature and construction of historical knowledge, and, as such, deals with issues such as: what is knowledge, how is it constructed, and how can it be evaluated? (Hofer, 2001; van Boxtel & van Drie, 2018).

Knowledge of metahistorical concepts and strategies represents knowledge of how to reason with historical information. On the one hand, it includes knowledge of conceptual ideas that allow to make sense of the past, such as: evidence, significance, and agency. On the other, it involves knowledge of concrete practices for reasoning about the past, such as: assessing the status of information, and constructing evidence-based arguments (VanSledright & Limón, 2006).

Interest in history is, in essence, the willingness to study history. Although history education may in itself spark students' interest in history, in most cases students need to be made aware that history can be meaningful for them (van Boxtel & van Drie, 2018).

To summarize, research thus stresses that a deep understanding of history requires not only strong factual knowledge, but also a thorough understanding of how to reason with historical information, and a willingness to do so (Seixas, 1999; van Drie & van Boxtel, 2008; Wineburg, 1991).

Nonetheless, several reports have revealed that practice in history classrooms often remains limited to the transfer of historical knowledge (e.g., Cuban, 2016; Vansledright, 2011). Previous studies offer conflicting explanations for this finding. Some propose that most history teachers simply see it as their main task to cover historical knowledge in an orderly fashion (Barton & Levstik, 2003). In contrast, others suggest that barriers such as high-stake testing and limited classroom time prevent teachers from fully developing students' ability to reason with historical information (Hicks, 2005; Monte-Sano, 2011; Van Hover & Yeager, 2003). Apart from revealing how teachers prioritize goals, this study may thus shed a new light on the divide between research and practice in the domain of history education.

4. AIMS

The present study's aim is to investigate teachers' goal prioritization through the theory of planned behavior. The subject of history is used as the case for this investigation. The research questions are concerned with the potential of the theory of planned behavior to: (RQ1) explain teachers' goal prioritization, and (RQ2) further explain why, in the context of history education, teachers' goal prioritization deviates from scholarly recommendations:

- RQ 1: How are history teachers' instrumental and affective attitude, subjective norm, and perceived behavioral control related to goal coverage?
- RQ 2: What causes the divide between the goals advanced by research on history education, and those enacted in the history classroom?

5. DESIGN AND METHODS

Data for this study were gathered through an interviewer-administered questionnaire. This methodology was chosen because of its potential for gathering rich data on the way in which teachers think about instructional goals (Groves et al., 2009): while the use of a questionnaire allowed to gather quantitative data for hypothesis testing, the presence of an interviewer who prompted teachers to explain their responses also made it possible to collect additional, qualitative data on the underlying rationale.

5.1. Design of the interviewer-administered questionnaire

The interviewer-administered questionnaire asked teachers to consider the four instructional goals that the theoretical framework of this study outlined as central to history education: historical knowledge, epistemological understanding, knowledge of metahistorical concepts and strategies, and interest in history. In accordance with the theory of planned behavior, teachers were requested to rate each of the following variables in relation to these goals: instrumental attitude, affective attitude, subjective norm, perceived behavioral control and coverage. These ratings were collected through grids that consisted of 11-point Likert scales (i.e., from 0 to 10). Figure 2 presents one of these grids, and appendix A shows all of them in their order of presentation.

1. How important do you think these learning goals are to history education?

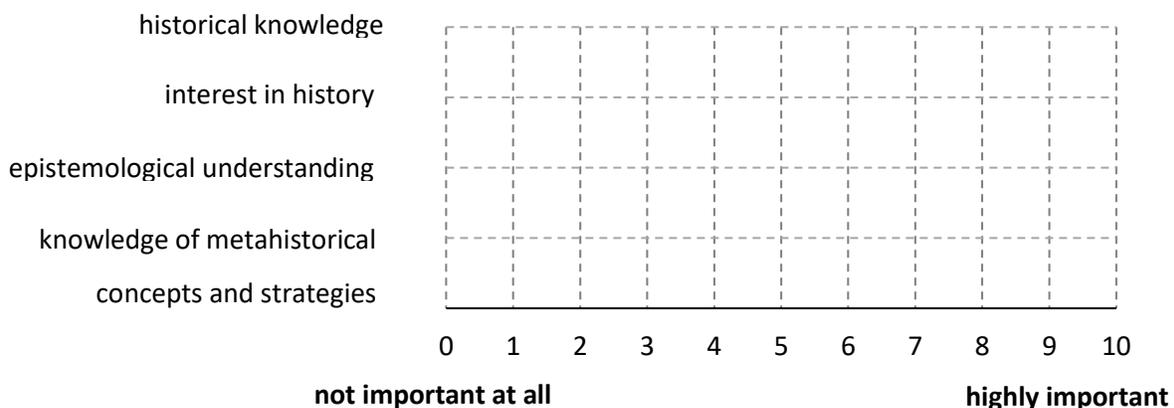


Figure 2. Example of the grids used to collect teachers' responses.

5.2. Participants

A total of 141 history teachers from 120 secondary schools participated in the study. These participants reacted positively to an e-mail invitation to participate in a research project that aimed to map history teachers' goal-setting. On average, these teachers were 41 years old (SD=10 years), and had 15 years of experience in history teaching (SD=9 years). Of these teachers, 69 were male and 72 were female. Almost all of them were well-prepared to teach history. A majority of 82 teachers held a master's degree in history, obtained through a four-year academic history program at university, and a one-year teacher training. Another 53 teachers had a bachelor's degree in history teaching from a three-year program at university college, which is characterized

by a practical focus on learning to teach history. Only 6 teachers did not have a degree that prepared them for history teaching.

All teachers instructed history in Flemish secondary education, which generally starts at the age of 12, and lasts 6 years, until the age of 18. According to the attainment goals that the government sets for history education, all four instructional goals outlined in this study's theoretical framework are to be developed in tandem. Depending on a classroom's grade and study track, which is either theoretically or vocationally oriented, history teachers can draw on one to two 50-minute lesson periods per week to realize these instructional goals. Teachers' realization of these goals is not checked through central exams, but by school inspectors: once every six years, these inspectors select several subjects (which may or may not include history) for evaluation (for more information on Flemish history education, see De Wever, Vandepitte, & Jadoulle, 2011). Of the 141 teachers that participated in this study, 81 worked mainly in two-period classrooms, and 55 in one-period classrooms. The remaining 5 unfortunately did not indicate in which of these contexts they taught most of the time.

5.3. Data collection

Prior to participation, teachers received an informed consent that described the study's goals and procedures. This consent also explained that the data would be anonymized right after collection, would not be passed on to a third party, and would be used solely for the purpose of carrying out the study. According to previous research, anonymity significantly reduces the risk of a social desirability bias occurring (Richman, Kiesler, Weisband, & Drasgow, 1999). To further minimize this risk, the consent explicitly noted that teachers' response could not lead to negative consequences for their career, and encouraged them to openly speak their mind.

After consenting, teachers completed the questionnaire in the presence of a researcher. The researcher told them how to fill in the questionnaire, and answered any remaining questions that teachers might have. Teachers were then instructed to provide a verbal report of their reasoning while they completed the questionnaire, and the researcher prompted them to elaborate whenever they forgot to do so. All teachers' verbal reports were taped using a digital recorder, and transcribed afterwards. Unfortunately, some technical difficulties with a few of the tapes led to a slight decrease, from 141 to 137, in the number of transcripts available for qualitative analysis.

5.4. Data analysis

Data analysis began with an investigation of the quantitative data, in the form of teachers' answers to the Likert scales. The first step was to calculate means for each variable, and to compare means of each particular variable across instructional goals. Correlation analysis was then used to further examine the relation between the instrumental attitude, affective attitude, subjective norm, and perceived behavior control related to a particular goal. This was done using SPSS 25. The next step of the analysis was to fit statistical models that explained reported coverage of each instructional goal based on the behavioral determinants outlined by the theory of planned behavior. As the data were hierarchically nested (i.e., some teachers worked in the same school), multilevel modelling was used to take variance at the different hierarchical levels into account. These analyses were carried out through MLwiN 3.02.

Data analysis continued with a qualitative investigation of the verbal reports in which teachers explained their responses to the questionnaire. The main goal of this analysis was to clarify why means of some behavioral determinants differed across instructional goals. This was done through a conventional content analysis approach, in which coding categories are derived directly from text data (Hsieh & Shannon, 2005). The first step was to identify relevant thematic units in the transcript. Such units are parts of the text that explain a single idea, and can vary from a simple sentence to an entire paragraph (Neuendorf, 2002). These units were then assigned a code, which was created to group similar units together. After all transcripts had been analyzed, the next step was to review all thematic units that had been assigned a code, to make sure that no errors had been made. This analysis was carried out with Nvivo 12.

6. RESULTS

The first part of the results section provides more information on teachers' instrumental attitude, affective attitude, subjective norm, and perceived behavioral control related to the four instructional goals of history education, and describes their reported coverage of these goals. The second part of the results section then moves on to examine the relation between teachers' goal coverage and the behavioral determinants outlined by the theory of planned behavior.

6.1. An overview of the behavioral determinants and goal coverage

Table 1 presents an overview of variable means across the four instructional goals of history education. Looking first at teachers' attitudes, Table 1 shows that teachers regard all four instructional goals as important to history education. Even so, the instrumental value of historical knowledge lies somewhat higher than that of the other goals. In their verbal reports, 52 out of

137 teachers explained that they regarded historical knowledge as the cornerstone of history education, generally believing that students cannot attain an in-depth understanding of history without strong historical knowledge. The results furthermore show that teachers enjoy working on all goals, although the development of historical knowledge and interest in history appear to hold the highest affective value.

Table 1

variable means for different instructional goals of history education

variable	M (SD)			
	historical knowledge	epistemological understanding	metahistorical knowledge	interest in history
<i>behavioral determinants</i>				
instrumental attitude	8.42 (1.45)	7.06 (1.91)	7.4 (1.80)	7.75 (1.83)
affective attitude	8.66 (1.82)	7.28 (2.30)	7.32 (2.23)	8.77 (1.54)
subjective norm	4.72 (3.32)	3.62 (3.00)	4.75 (3.19)	3.35 (2.84)
perceived behavioral control	8.33 (1.66)	5.72 (2.27)	5.92 (2.49)	7.00 (2.02)
<i>behavior</i>				
goal coverage	8.77 (1.84)	5.27 (2.52)	6.04 (2.55)	7.75 (2.48)

Note. N = 141. All scales are 11-point scales, from 0 (minimum) to 10 (maximum).

The means of subjective norm in relation to the four instructional goals are rather low. In line with this finding, 50 teachers explicitly remarked that they did not feel pressured to cover any of these goals. They explained that their colleagues or school leader generally did not express expectations about their lesson planning, and that only a few of them had actually been evaluated by the school inspection during their career as a history teacher. Table 2 shows the frequency with which referent individuals or groups were mentioned differed across goals, which helps to explain the somewhat higher means for the goals of historical knowledge and knowledge of metahistorical concepts and strategies.

Table 2

referent individuals or groups mentioned by teachers

referent individual or group	N teachers			
	historical knowledge	epistemological beliefs	metahistorical knowledge	interest in history
<i>within school</i>				
(colleagues, school leader)	23	8	21	5
<i>outside school</i>				
(government, school inspection)	23	20	35	0

Note. N=137

The results in Table 1 also make it clear that teachers feel quite able to develop students' historical knowledge and interest in history, while they are less confident about their ability to address students' epistemological understanding and knowledge of metahistorical concepts and strategies. Teachers' verbal reports reveal several explanations for this discrepancy. The main reasons appear to be: limited instruction time (mentioned by respectively 48 and 71 teachers), and low student ability (respectively 54 and 47 teachers). Teachers noted that activities associated with these instructional goals often take up a lot of time, and can present quite a challenge to students. Furthermore, 14 teachers even claimed that these two goals were simply unattainable because, in their opinion, students lacked the necessary intellectual maturity. Other, less noted, factors include: low student interest in subject matter associated with these goals (respectively 18 and 16 teachers), and a lack of pedagogical knowledge on how to organize relevant activities (11 and 12 teachers).

Finally, the results demonstrate that teachers are more inclined to cover goals of historical knowledge and interest in history, than to work on epistemological understanding and knowledge of metahistorical concepts and strategies. This is further investigated in the next section.

6.2. The relation between the behavioral determinants and goal coverage

The second part of the analysis investigates whether the behavioral determinants outlined by the theory of planned behavior are able to explain teachers' goal coverage. Before regression models were estimated, correlation analysis was used to see how the behavioral determinants were related to one another. The results in Table 3 show a significant positive correlation between the instrumental and affective attitude associated with each instructional goal. A higher instrumental value of a goal thus seems to go hand in hand with a higher affective value. Furthermore, the

results show that both kinds of attitude are positively correlated with the perceived behavioral control related to an instructional goal. A higher perceived value of a goal is thus positively associated with greater confidence to realize this goal. Interestingly, subjective norm is generally not significantly correlated with other behavioral determinants.

Table 3

correlations between behavioral determinants related to a particular goal

	perceived behavioral control	subjective norm	affective attitude
<i>historical knowledge</i>			
instrumental attitude	.22**	-.11	.3**
affective attitude	.15*	.01	
subjective norm	<.01		
<i>epistemological understanding</i>			
instrumental attitude	.47*	.23	.53**
affective attitude	.46**	.02	
subjective norm	.02		
<i>metahistorical knowledge</i>			
instrumental attitude	.33**	.06	.52**
affective attitude	.52**	-.05	
subjective norm	-.07		
<i>interest in history</i>			
instrumental attitude	.42**	.2*	.4**
affective attitude	.42**	.08	
subjective norm	.07		

Note. *. $p < .05$, **. $p < .01$.

The relation between teachers' goal coverage and the behavioral determinants outlined by the theory of planned behavior was further examined through multilevel modeling. Given that teachers worked in different contexts, with either one or two lesson periods per week for teaching history, this analysis first of all explored whether teachers' goal coverage differed across these two contexts. To do so, four 2-level multilevel models were estimated, with teachers' coverage of one particular goal as the dependent variable. The number of lesson periods for

history education was then added as an independent categorical variable, with ‘two lesson periods’ as the reference category. The results are presented in Table 4, and clearly indicate that that teachers’ working context was not significantly related to their coverage of the four instructional goals.

Table 4
relation between working context and goal coverage.

variable	B (SE)			
	historical knowledge	epistemological understanding	metahistorical knowledge	interest in history
<i>fixed part</i>				
intercept	8.74 (0.25)	5.05 (0.33)*	5.75 (0.32)*	7.91 (0.33)*
N lesson periods for history (reference level = 2)	0.03 (0.32)	0.27 (0.44)	.39 (0.42)	-0.32 (0.43)
<i>random part</i>				
group	0.2 (0.68)	0 (0)	2.34 (1.24)	0 (0)
teacher	3.26 (0.77)*	6.42 (0.78)*	3.92 (1.14)*	6.23 (0.76)*

Note. Results were obtained through four separate 2-level random intercept models, and therefore adjusted using Bonferroni correction. As such, * indicates a significant effect of $p < .0125$ (α of .05 divided by 4).

For the next step of the analysis, another four 2-level multilevel models were estimated. Similar to before, teachers’ coverage of one particular goal was added as the dependent variable. This time, however, instrumental attitude, affective attitude, subjective norm, and perceived behavioral control associated with the instructional goal were added as the independent variable. The output of these models is presented in Table 5.

The main finding of the multilevel models is that coverage of each instructional goal is significantly related to instrumental attitude associated with that goal. With the exception of historical knowledge, coverage of the goals is also significantly related to the perceived behavioral control related to those goals. In contrast, the affective attitude and subjective norm related to the four instructional goals are not significantly related to their coverage in class.

Table 5

relation between behavioral determinants and goal coverage.

variable	B (SE)			
	historical knowledge	epistemological understanding	metahistorical knowledge	interest in history
<i>fixed part</i>				
intercept	8.78 (0.14)*	5.27 (0.16)*	5.96 (0.19)*	7.74 (0.18)*
instrumental attitude	0.39 (0.10)*	0.35 (0.11)*	0.29 (0.11)*	0.36 (0.11)*
affective attitude	0.16 (0.08)	0.09 (0.09)	0.21 (0.10)	0.07 (0.14)
subjective norm	0.01 (0.04)	0.13 (0.06)	0.07 (0.05)	0.01 (0.07)
perceived behavioral control	0.14 (0.09)	0.4 (0.09)*	0.29 (0.08)*	0.38 (0.10)*
<i>random part</i>				
group	0.38 (0.54)	0 (0)	2.33 (0.8)*	0.21 (0.86)
teacher	2.36 (0.59)*	3.74 (0.45)*	2.2 (0.65)*	4.36 (0.99)*

Note. Results were obtained through four separate 2-level random intercept models (with independent variables centered around grand mean), and therefore adjusted using Bonferroni correction. As such, * indicates a significant effect of $p < .0125$ (α of .05 divided by 4).

7. DISCUSSION AND CONCLUSION

This study set out to investigate teachers' goal prioritization through the theory of planned behavior, using the context of history education as a case. The results of this study first of all confirm that the theory of planned behavior can help to explain teachers' goal prioritization, even though its findings are not entirely consistent with previous work (e.g., Ajzen & Driver, 1991). To be more specific, this study shows that teachers' goal coverage is affected by teachers' attitude and perceived behavioral control, but not by subjective norm. Although meta-analyses do suggest that subjective norm is the weakest component of the theory of planned behavior (e.g., Armitage & Conner, 2001), this does not really explain why the present study found no significant relation. Instead, teachers' comments about the influence of referent individuals or groups suggest that the explanation lies in the educational context where the study took place. Similar to what others have found (e.g., Burnkrant & Page, 1988), infrequent teacher appraisal, together with a low impact of referent individuals or groups on teacher careers, help to explain why subjective norm did not impact teachers' goal coverage. Still, future research on the relation between subjective

norm and goal coverage could provide more conclusive evidence on this hypothesis through comparisons of low- and high-stakes educational systems.

Looking closer at the influence of teachers' attitude, the study further shows that teachers' goal coverage is affected only by instrumental attitude, and not affective attitude. This finding echoes those of earlier work by Ajzen and Driver (1991), which suggested that decisions about activities requiring a significant amount of effort tend to be affected by instrumental beliefs rather than affective beliefs.

When it comes to teachers' perceived behavioral control, the study reveals a positive relation with coverage of each goal, save one: development of historical knowledge. Although this finding may seem somewhat puzzling at first, Armitage and Conner (2001) do state that control beliefs may be less predictive of behavior in situations where attitudes are particularly strong. Bearing in mind that the participants rated the instrumental value of the development historical knowledge as the highest out of all goals, knowledge of this mechanism may help to account for this finding. In addition, the finding that teachers' goal coverage did not differ across contexts with either one or two lesson periods for history education, further confirms that their goal prioritization is influenced by beliefs, rather than control factors in themselves (Ajzen, 2005).

It is, however, important to note that all of these findings were obtained through an investigation in the context of history education. Future research should therefore investigate whether use of the theory of planned behavior yields similar findings in other subject teaching contexts. It would also be interesting if such studies could include actual observations of teachers' instruction, as these might provide a more detailed view of the way in which teachers prioritize goals than the self-report measures used in the present study.

Apart from demonstrating that the theory of planned behavior can help to explain teachers' goal prioritization, this study also sheds new light on a worrisome divide between research and practice in history education. Even though scholarly work has repeatedly emphasized that a deep understanding of history requires not only historical knowledge, but also knowledge of how to reason with historical information, and a willingness to do so (Seixas, 1999; van Drie & van Boxtel, 2008; Wineburg, 1991), reports from classrooms show that history education often remains limited to a transfer of historical knowledge (e.g., Cuban, 2016; Vansledright, 2011)

To start with, this study does not offer much evidence for claims that this divide between research and practice is mainly a matter of the goals that teachers regard as important (e.g., Barton & Levstik, 2003). While the study demonstrates that attitude, and instrumental attitude in particular, do indeed affect teachers' goal coverage, it also shows that teachers gave rather

high ratings to all instructional goals. As such, teachers' attitude does not really help to explain the divide.

Instead, the study indicates that the real cause for the divide lies in teachers' perceived behavioral control, which was also found to affect coverage of instructional goals concerned with the development of students' reasoning abilities. In particular, the findings demonstrate that teachers did not feel very able to cover such goals. Similar to what other studies have suggested (Hicks, 2005; Monte-Sano, 2011; Van Hover & Yeager, 2003), these feelings of low perceived behavioral control seem to follow from negative beliefs regarding a number of control factors, including: limited classroom time, low student ability, low student interest, and a lack of teacher pedagogical knowledge.

8. IMPLICATIONS

This study shows that the theory of planned behavior is a promising framework for research that aims to understand teachers' goal prioritization. More specifically, it reveals that teachers' goal prioritization is affected by both instrumental attitude and perceived behavioral control, but not by affective attitude and subjective norm. As noted before, it would be interesting for future research to compare these findings to findings from studies in other subject teaching contexts, or educational systems that differ in their emphasis teacher accountability. This could help to further clarify the potential of the theory of planned behavior to explain teachers' goal prioritization. It would also be interesting for future studies to include observations of teachers' instruction, as these could provide more detailed information about teachers' coverage of different goals.

Furthermore, this study allows to make several recommendations to teacher training, particularly within the context of history education. Most importantly, the study suggests that initiatives aiming to change teachers' goal prioritization should primarily address instrumental attitude and perceived behavioral control. To do so, previous work has first of all suggested the use of conceptual change strategies (Korthagen, 1992). Such strategies consists of different steps, through which students are made aware of their beliefs, examine possible misconceptions and disadvantages of their beliefs, and then form sound alternatives (Korthagen, 2013). History teacher trainers could, for example, use these strategies to address negative perceptions about student ability, which withheld many teachers in the present study from prioritizing goals related to reasoning with historical information. Second of all, the literature on perceived behavioral control (Ajzen, 2002) points out that it is also of crucial importance to equip teachers with the resources that are necessary to cover the goals that are of interest. Most importantly, this means

that teacher trainers should ensure that teachers possess the required content and pedagogical knowledge. Without such resources, it is unlikely that teachers will feel able to cover the goal, let alone deal with unexpected obstacles.

9. REFERENCES

- Aguirre, J., & Speer, N. (2000). Examining the relationship between beliefs and goals in teacher practice. *Journal of Mathematical Behavior*, 18(3), 327–356.
- Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, 50(2), 179–211.
- Ajzen, I. (2002). Perceived behavioral control, self-efficacy, locus of control, and the theory of planned behavior. *Journal of Applied Social Psychology*, 32(4), 665–683.
- Ajzen, I. (2005). *Attitudes, personality, and behavior* (2nd ed.). Maidenhead, England: Open University Press.
- Ajzen, I. (2015). The theory of planned behaviour is alive and well, and not ready to retire: a commentary on Sniehotta, Pesseau, and Araújo-Soares. *Health Psychology Review*, 9(2), 131–137.
- Ajzen, I., & Driver, B. L. (1991). Prediction of leisure participation from behavioral, normative, and control beliefs: An application of the theory of planned behavior. *Leisure Sciences*, 13(185–204).
- Armitage, C. J., & Conner, M. (2001). Efficacy of the theory of planned behavior: A meta-analytic review. *British Journal of Social Psychology*, 40, 471–499.
- Barton, K., & Levstik, L. (2003). Why don't more history teachers engage students in interpretation? *Social Education*, 67(6), 358–361.
- Burnkrant, R. E., & Page, T. J. (1988). The structure and antecedents of normative and attitudinal components of Fishbein's Theory of Reasoned Action. *Journal of Experimental Social Psychology*, 24(1), 66–87.
- Cobb, P. (1986). Context, goals, beliefs, and learning mathematics. *For the Learning of Mathematics*, 6(2), 2–9.
- Cooke, R., & French, D. P. (2008). How well do the theory of reasoned action and theory of planned behaviour predict intentions and attendance at screening programmes? A meta-analysis. *Psychology & Health*, 23(7), 745–765.
- Cuban, L. (2016). *Teaching history then and now: A story of stability and change in schools*. Cambridge, MA: Harvard Education Press.
- De Wever, B., Vandepitte, P., & Jadoulle, J.-L. (2011). *Historical education and didactics of*

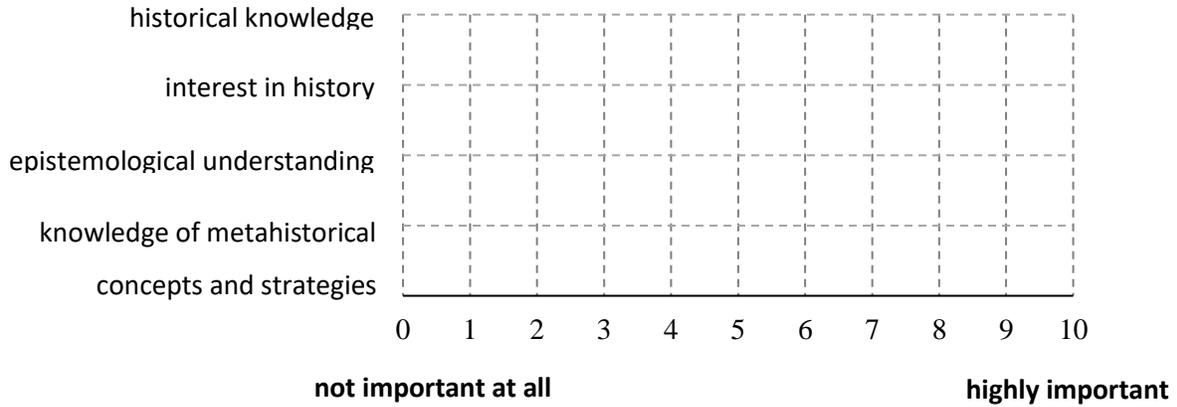
- history in Belgium. In E. Erdmann & W. Hasberg (Eds.), *Facing, mapping, bridging diversity: Foundation of a European discourse on history education* (pp. 49–50). Schwalbach, Germany: Wochenschau Verlag.
- Fishbein, M., & Ajzen, I. (1981). On construct validity: A critique of Miniard and Cohen's paper. *Journal of Experimental Social Psychology*, 17(3), 340–350.
- French, D. P., Sutton, S., Hennings, S. J., Mitchell, J., Wareham, N. J., Griffin, S., ... Kinmonth, A. L. (2005). The importance of affective beliefs and attitudes in the theory of planned behavior: Predicting intention to increase physical activity. *Journal of Applied Social Psychology*, 35(9), 1824–1848.
- Goodman, J. (1988). Constructing a practical philosophy of teaching: A study of preservice teachers' professional perspectives. *Teaching and Teacher Education*, 4(2), 121–137.
- Grossman, P. L., & Stodolsky, S. S. (1995). Content as context: The role of school subjects in secondary school teaching. *Educational Researcher*, 24(8), 5–23.
- Groves, R. M., Fowler, F. J., Couper, M. P., Lepkowski, M. J., Singer, E., & Tourangeau, R. (2009). *Survey methodology* (2nd ed.). Hoboken, NJ: Wiley.
- Hansen, T., Jensen, J. M., & Solgaard, H. S. (2004). Predicting online grocery buying intention: a comparison of the theory of reasoned action and the theory of planned behavior. *International Journal of Information Management*, 24(6), 539–550.
- Hicks, D. (2005). Continuity and constraint: Case studies of becoming a teacher of history in England and the United States. *International Journal of Social Education*, 20(1), 18–40.
- Hofer, B. K. (2001). Personal epistemology research: Implications for learning and teaching. *Journal of Educational Psychology Review*, 13(4), 353–383.
- Hsieh, H., & Shannon, S. E. (2005). Three approaches to qualitative content analysis. *Qualitative Health Research*, 15(9), 1277–1288.
- Janssen, F., Westbroek, H., Doyle, W., & Van Driel, J. (2013). How to make innovations practical. *Teachers College Record*, 115(7), 1–42.
- Kagan, D. M. (1992). Implications of research on teacher belief. *Educational Psychologist*, 27(1), 65–90.
- Knauder, H., & Koschmieder, C. (2019). Individualized student support in primary school teaching: A review of influencing factors using the Theory of Planned Behavior (TPB). *Teaching and Teacher Education*, 77, 66–76.
- Korthagen, F. A. J. (1992). Techniques for stimulating reflection in teacher education seminars. *Teaching and Teacher Education*, 8(3), 265–274.
- Korthagen, F. A. J. (2013). In search of the essence of a good teacher. In C. J. Craig, P. Meijer, & J.

- Broeckmans (Eds.), *From teacher thinking to teachers and teaching: The evolution of a research community* (pp. 241–274). Bingley, UK: Emerald Group Publishing Limited.
- Latham, G. P., & Locke, E. A. (1991). Self-regulation through goal setting. *Organizational Behavior and Human Decision Processes*, 50, 212–247.
- MacFarlane, K., & Woolfson, L. M. (2013). Teacher attitudes and behavior toward the inclusion of children with social, emotional and behavioral difficulties in mainstream schools: An application of the theory of planned behavior. *Teaching and Teacher Education*, 29, 46–52.
- McEachan, R. R. C., Conner, M., Taylor, N. J., & Lawton, R. J. (2011). Prospective prediction of health-related behaviours with the Theory of Planned Behaviour: a meta-analysis. *Health Psychology Review*, 5(2), 97–144.
- Monte-Sano, C. (2011). Learning to open up history for students: Preservice teachers' emerging pedagogical content knowledge. *Journal of Teacher Education*, 62(3), 260–272.
- Neuendorf, K. A. (2002). *The content analysis guidebook*. London: Sage Publications.
- Pajares, M. F. (1992). Teachers' Beliefs and Educational Research: Cleaning Up a Messy Construct. *Review of Educational Research*, 62(3), 307–332.
- Quintal, V. A., Lee, J. A., & Soutar, G. N. (2010). Risk, uncertainty and the theory of planned behavior: A tourism example. *Tourism Management*, 31(6), 797–805.
- Richman, W. L., Kiesler, S., Weisband, S., & Drasgow, F. (1999). A meta-analytic study of social desirability distortion in computer-administered questionnaires, traditional questionnaires, and interviews. *Journal of Applied Psychology*, 84(5), 754-775she.
- Schoenfeld, A. (2011). *How we think: A theory of goal-oriented decision making and its educational applications*. New York, NY: Routledge.
- Seixas, P. (1999). Beyond "content" and "pedagogy": In search of a way to talk about history education. *Higher Education*, 31(3), 317–337.
- Törner, G., Rolka, K., Rösken, B., & Sriraman, B. (2010). Understanding a teacher's actions in the classroom by applying Schoenfeld's theory Teaching-In-Context: Reflecting on goals and beliefs. In B. Sriraman & L. English (Eds.), *Theories of mathematics education: Seeking new frontiers* (pp. 401–420). Berlin, Germany: Springer.
- Underwood, P. R. (2012). Teacher beliefs and intentions regarding the instruction of English grammar under national curriculum reforms: A Theory of Planned Behaviour perspective. *Teaching and Teacher Education*, 28(6), 911–925.
- van Boxtel, C., & van Drie, J. (2018). Historical reasoning: definitions and educational applications. In S. A. Metzger & L. McArthur Harris (Eds.), *Handbook of history teaching and learning*. New York, NY: Wiley-Blackwell.

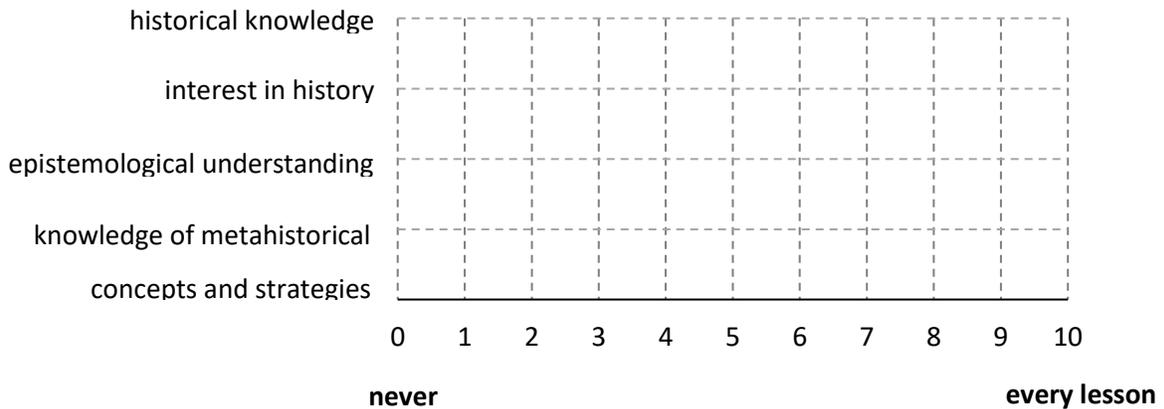
- van Drie, J., & van Boxtel, C. (2008). Historical reasoning: Towards a framework for analyzing students' reasoning about the past. *Educational Psychology Review*, 20(2), 87–110.
- Van Hover, S. D., & Yeager, E. A. (2003). Challenges facing beginning history teachers: An exploratory study. *International Journal of Social Education*, 19(1), 8–21.
- Vansledright, B. A. (2011). *The challenge of rethinking history education*. New York, NY: Routledge.
- VanSledright, B., & Limón, M. (2006). Learning and teaching social studies: a review of cognitive research in history and geography. In P. A. Alexander & P. H. Winne (Eds.), *The handbook of educational psychology* (2nd ed., pp. 545–570). Mahwah, NJ: Lawrence Erlbaum.
- Walker, A. E., Grimshaw, J. M., & Armstrong, E. M. (2001). Salient beliefs and intentions to prescribe antibiotics for patients with a sore throat. *British Journal of Health Psychology*, 6(4), 347–360.
- Westbroek, H., Janssen, F., & Doyle, W. (2017). Perfectly reasonable in a practical world: Understanding chemistry teacher responses to a change proposal. *Research in Science Education*, 47(6), 1403–1423.
- Wineburg, S. (1991). On the reading of historical texts: Notes on the breach between school and academy. *American Educational Research Journal*, 28(3), 495–519.

APPENDIX A: QUESTIONNAIRE

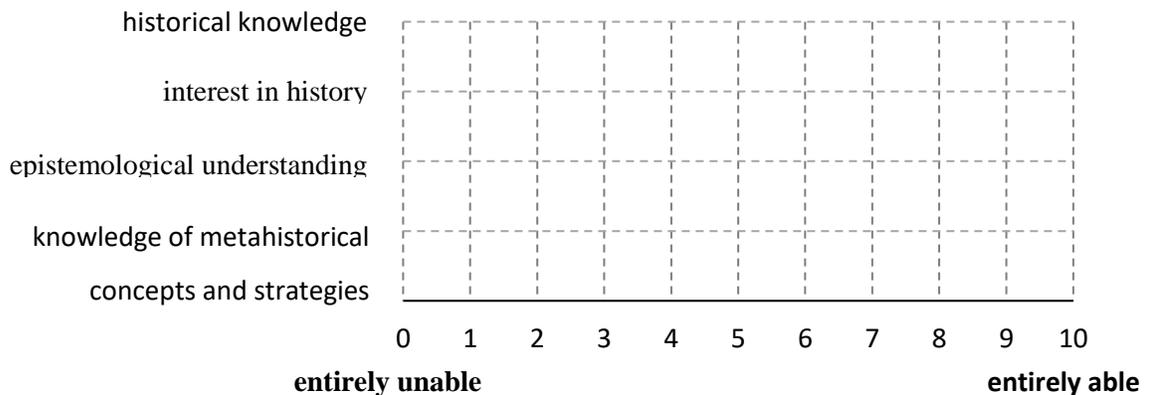
1. How important do you think these learning goals are to history education?



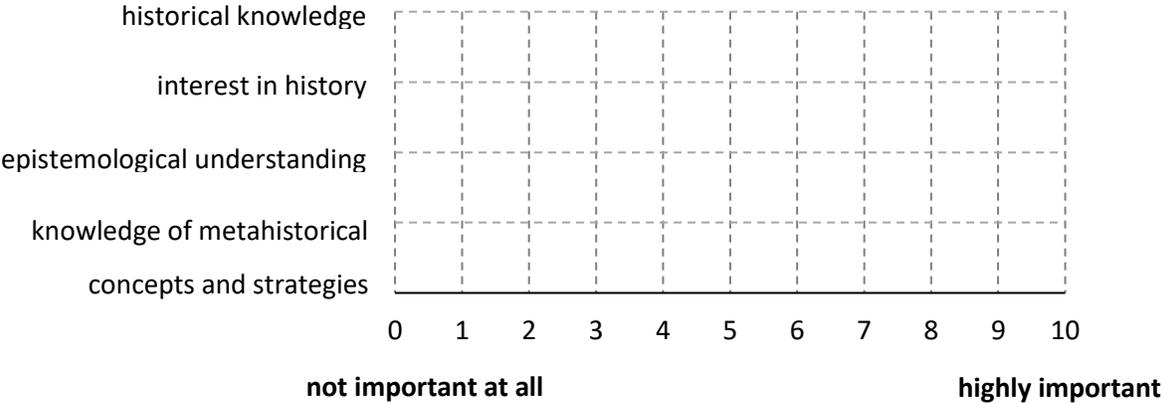
2. How often do you work on these learning goals during the history lessons?



3. How able do you feel to realize these learning goals during the history lessons –taking into account your knowledge, the students, and available time for teaching history?



4. How much do you enjoy working on these learning goals during the history lessons?



5. How much pressure (e.g. from school leader, other teachers) do you feel to work on these learning goals during the history lessons?

