

## **Knowledge about the European Union in Political Education: What are the Effects of Motivational Predispositions and Cognitive Activation?**

### **Connaissances relatives à l'union européenne en éducation politique : quels sont les effets des dispositions motivationnelles et de l'activation cognitive ?**

Georg Weissenso et Barbara Landwehr

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Résumé de l'article

Ce projet de recherche explore l'efficacité de l'enseignement en sciences politiques tel que prodigué en Allemagne. Pour ce faire, les auteurs analysent les connaissances de 1 071 élèves de 9<sup>e</sup> et 10<sup>e</sup> année pour voir si elles se sont accrues à la suite de leur participation à la série de cours. Cette analyse met l'accent sur l'élément de compétence « connaissances de contenu spécifique à une matière », ainsi que sur les prédispositions motivationnelles « concept de soi en milieu scolaire » et « intérêt en politique ». Elle s'arrête également aux dimensions pédagogiques « inclusion des élèves » et « activation cognitive », du point de vue des apprenants. Le concept de soi en milieu scolaire et l'intérêt en politique, ainsi que l'enseignement avec activation cognitive ont un effet positif modéré sur la réussite scolaire. Quant à l'aspect inclusion sociale, il se corrèle avec tous les concepts, à l'exception des connaissances de contenu spécifique à une matière.

# KNOWLEDGE ABOUT THE EUROPEAN UNION IN POLITICAL EDUCATION: WHAT ARE THE EFFECTS OF MOTIVATIONAL PREDISPOSITIONS AND COGNITIVE ACTIVATION?

GEORG WEISSENO & BARBARA LANDWEHR *Karlsruhe University of Education*

**ABSTRACT.** This study investigates the effectiveness of political science classes in Germany. It analyzes whether or not 1,071 students in the 9<sup>th</sup> and 10<sup>th</sup> grade showed increases in knowledge after participating in the lesson series. This analysis focuses on the competence dimension “subject-specific content knowledge” as well as on the motivational predispositions “academic self-concept” and “interest in politics.” It also examines the instructional characteristics “inclusion of students” and “cognitive activation” from the students’ perspective. One’s academic self-concept and interest in politics, as well as cognitively activating instruction, have a moderately positive effect upon educational success. Social inclusion correlates with all constructs except subject-specific content knowledge.

CONNAISSANCES RELATIVES À L'UNION EUROPÉENNE EN ÉDUCATION POLITIQUE: QUELS SONT LES EFFETS DES DISPOSITIONS MOTIVATIONNELLES ET DE L'ACTIVATION COGNITIVE ?

**RÉSUMÉ.** Ce projet de recherche explore l'efficacité de l'enseignement en sciences politiques tel que prodigué en Allemagne. Pour ce faire, les auteurs analysent les connaissances de 1 071 élèves de 9<sup>e</sup> et 10<sup>e</sup> année pour voir si elles se sont accrues à la suite de leur participation à la série de cours. Cette analyse met l'accent sur l'élément de compétence « connaissances de contenu spécifique à une matière », ainsi que sur les prédispositions motivationnelles « concept de soi en milieu scolaire » et « intérêt en politique ». Elle s'arrête également aux dimensions pédagogiques « inclusion des élèves » et « activation cognitive », du point de vue des apprenants. Le concept de soi en milieu scolaire et l'intérêt en politique, ainsi que l'enseignement avec activation cognitive ont un effet positif modéré sur la réussite scolaire. Quant à l'aspect inclusion sociale, il se corrèle avec tous les concepts, à l'exception des connaissances de contenu spécifique à une matière.

After Germany's school children achieved only a mediocre ranking in international comparative educational research, including the 2002 Civic Education Study, the Ministers of Education in 16 German states reacted in 2003 with the reform of the German educational system. They set standards for German, mathematics, natural sciences, and foreign languages. The standards are reviewed every year at the national level. In addition, Germany continues to participate in international comparative studies (PISA, IGLU, TIMSS). This monitoring of students' educational success takes place in the form of tests measuring various skills or abilities, especially at the basic level. However, this kind of monitoring does not yet take place for political education. Education policy has created new challenges for the subject field "political didactics" (*Politikdidaktik*). In German universities, there are professors specialized in subject-specific didactics. As such, political education research is called upon to empirically study political education instruction. In order to do so, it is important to use competence models that integrate the research in a wider theoretical framework. In Germany, there is a separate research focus on competence or skills, as opposed to goals related to knowledge of specific content. Studying the competence levels and the factors which help increase competence in the respective subjects is not just the goal of lessons, but also of all school subject-specific didactics (Weisseno, 2015, p. 61). This study gives attention to this aim.

This text argues that the two motivational predispositions "interest" and "self-concept," as well as cognitive activation, positively influence students' achievement. The instructional focus is the European Union (EU). For students in Germany, this is an abstract and vague concept, because they can only build upon their previous knowledge of the German political system to a limited degree. For this reason, it is important to enhance this knowledge using purposeful methods. In the context of a Jean Monnet project (European Commission: grant agreement 2011-4143/34), an instructional intervention on the topic of the European Union was created to measure the influence of the above factors as well as their relationship to knowledge acquisition. The lesson materials are available online (<http://politik.ph-karlsruhe.de/jmp/en/76fab54c04b34064bf7cb81a22b4b19a/>). The theoretical framework and the results of the study will be discussed below.

## THEORETICAL FRAMEWORK AND STATE OF RESEARCH

For the last ten years, political didactics has been discussing competence. Numerous individual researchers have presented different ideas about this, sometimes assuming particular dimensions without thorough theoretical discussion, and sometimes discussing them theoretically in a very complex manner using terminology from political science and educational psychology. This study defines competence in the following manner: "Competence is acquired through

and influenced by experience and study as well as external interventions and institutionalized educational processes” (Fleischer, Leutner, & Klieme 2012, p. 1). A student’s competence can be operationalized via his or her performance during instruction. For this reason, one does not understand competence as a human quality. It is not a form of intelligence, even if it correlates positively with the latter. Competence is learnable (Hartig & Klieme, 2006, p. 130), and is a context-specific cognitive achievement disposition (p. 137). The development of context-specific competences requires experiences, in this case with political contexts. The challenges posed during instruction must be met by the student in a context-specific way using political terms and phrases.

According to the competence model, political didactics should clarify the basic political terms, their relationship to each other, and how they fit in the wider knowledge structure of political knowledge taught in school. The student must then be able to use at least this defined knowledge structure. In order for this knowledge to be connected with other dimensions of instruction, it is essential that this knowledge is oriented towards the specific students in the class. The students must be able to analyze the findings of political science observations and be able to judge their inner structure and limitations. As part of political practice, political observations and the judgments placed on them are compared and positions are taken. Students articulate and argue these positions in a political manner.

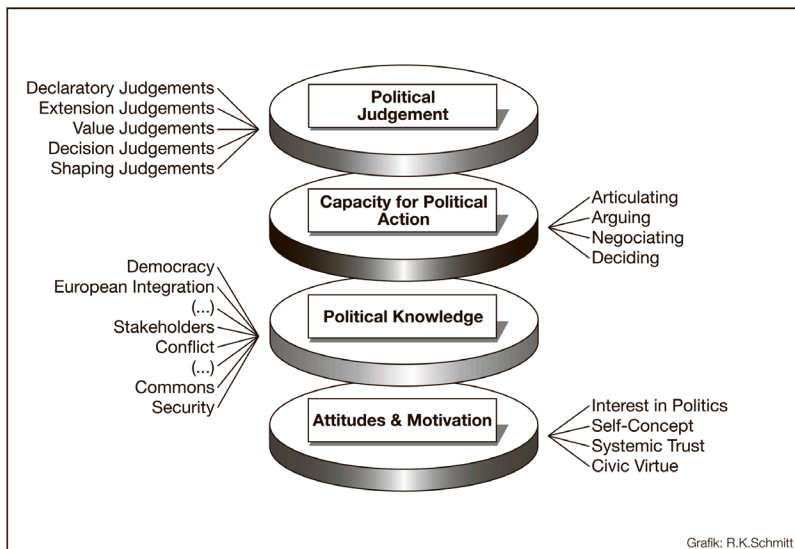


FIGURE 1. *Political competence* (Detjen, Massing, Richter, & Weisseno, 2012, p. 15)

This study uses Detjen et al.'s (2012) theoretically-based political competence model (see Figure 1), which includes the competence dimensions "subject-specific content knowledge," "political judgment," "political agency," "political attitudes," and "motivation." The individual competence dimensions are connected, such that political attitudes and motivations support the other three components. This article only addresses the components motivation and subject-specific content knowledge.

This competence model is based upon John Anderson's ACT-R theory. Knowledge disregards the details of concrete experiences, categorizing instead their characteristics and traits (Anderson, 2000). The highest level of decontextualization is conceptual knowledge, which can be used to analyze different contexts. During instruction, information is processed with respect to perception as well as to meaning. At the same time, mental concepts are developed that are no longer identical with the initial perception of the original events. In the process of processing information, new things are learned and placed in the context of subject-specific knowledge.

When students have a grasp of conceptual political knowledge, they can then use it in other situations, either as a student or as a citizen, in order to arrive at solutions adequate for different contexts, even if they have not had personal experience with such a solution. For instance, someone who has a subject-specific knowledge on the topic of "voting" can evaluate a news report on the voting process in another country and judge whether this fits democratic requirements, even if he/she lacks detailed information about the specific case.

"Subject-specific content knowledge" (Detjen et al. 2012, pp. 29-34) encompasses 30 subject concepts constituting political knowledge such as democracy, European actors, European integration, freedom, peace, justice, etc.<sup>1</sup> Additional terms are subsumed under these concepts. These concepts and constituting terms are not presented as isolated units of knowledge to be memorized, but rather as points in a network of knowledge. According to the information paradigm and socio-constructivist educational theories, they are structured in different basic patterns. The concepts, themselves, are interpreted by each individual student in his or her own way (Kunter & Trautwein, 2013, p. 40).

One can observe this in political education instruction, for instance, in the way that students use political concepts. Since people use academic concepts as symbolic systems, they are utilized accordingly in political education instruction. Students can then use them to analyze political phenomena. Conceptual knowledge can be developed during instruction and can also be presented by students in their answers to test questions.

A draft bill easing online investigations of computers is undesired by a large part of the population. How can the government get it passed anyway?

- The government convinces the press that it is necessary.
- The government convinces the majority in Parliament that it is necessary. [✓]
- The government convinces the majority of citizens that it is necessary.
- The government can pass the law on its own. (Goll, Richter, Weisseno, & Eck, 2010, p. 32)

Suppose that Cyprus decides to block the EU and votes from now on against every new bill to be passed by the Council of Ministers. What will happen?

- The EU is not able to pass any more bills.
- The EU can continue to pass all bills.
- The EU can pass many but no longer all bills. [✓]
- The EU has to draw lots to decide about passing bills. (Weisseno & Eck, 2012, p. 313).

The sample items show that memorizing certain facts is not enough. The students have to gain a deeper understanding of the political process and its functioning. Thus, learning is an active and constructive process, demanding active engagement with the subject content in order to build up a well-organized and stable structure of knowledge. The more a student mentally engages with the object of learning, the better he or she will comprehend and sustainably learn about it (Detjen et al., 2012, p. 86).

Existing research includes numerous systematic studies on the knowledge of students in school (Goll et al., 2010; Oberle, 2012; Weisseno & Eck, 2012). The empirical results so far indicate that the model of political competence can be successfully adopted. The construction of knowledge tests according to this model seems to be possible.

In school instruction, students are offered lessons. The instruction must fulfill various quality standards. One distinguishes between the visible structures and the deep structures of educational instruction (Kunter & Trautwein, 2013). The visible structures are the instruction's organizational characteristics (e.g. group work, direct instruction, class instruction). Within the visible structures, the degree to which a student engages with the subject or is integrated in the group may vary greatly. The deep structures refer to the quality of instruction. Effective educational instruction gives special attention to the deep structures by supporting the mental organization of concepts and stimulating mental activity.

Teachers cannot force children to make an effort or to direct their attention to a subject. However, they can offer their students cognitively activating lessons (example item: "Teachers present several sides of the issues when explaining

them in class” from ICCS, 2009 [Schulz, Ainly, & Fraillon, 2011, p. 170]). The deep structure of cognitive activation is the most important quality standard that supports achievement. Activities that are not as cognitively activating are, for example, the memorization of facts, exercises which always follow the same structure, or tasks which only remind students of knowledge they already possess. Lessons which are very cognitively activating may, for instance, contradict what students already know, offer numerous solutions, or demand that students expand their previous knowledge to come to a solution (Baumert et al., 2010; Kunter & Trautwein, 2013).

Political education research has shown that political education teachers do little to pedagogically structure how they introduce political concepts (Manzel & Gronostay, 2013). There is little complexity in the lesson plans, and the focus on factual knowledge comprises about 67% of class time. According to this pilot study, political education appeared to promote a low level of cognitive activation. Watermann (2003), who based his analysis on the German sample of the Civic Education Study, showed that discussion-style classes have a significant but nonetheless weak effect upon the individual level of political knowledge. While not all students benefit to the same degree from cognitively activating lessons, activating teaching instructions can increase students’ interest in politics; the combination of these two factors (interaction effect) can improve learning development (Lipowsky, 2009).

A student’s interest in politics and his or her academic self-concept (one’s personal beliefs about one’s academic abilities or skills) are generally seen as important motivational variables in school lessons. In the context of the Expectation-times-Value Model for Motivation (Wigfield & Eccles, 2002), the variables self-concept and interest are important indicators for the strength of students’ motivation to engage with the topic. The relationship between knowledge on the one hand and self-concept and interest on the other can be described in this way. The effective directions of both constructs are presented in this theory. The dependent variable is school achievement, in this case, political knowledge. The expectation components are based on the question of whether or not a student believes that he or she can (successfully) fulfil a task. Students’ estimates of the probability of their success are especially influenced by their academic self-concept and by their assumptions about the difficulty of the task at hand (Cortina, Makara, & Gruehn, 2010; Daniels, 2008). In other words, a student’s opinion of his or her own abilities influences his or her learning achievement. The value component, which was not a part of this study, relates to the question of whether or not a task is interesting for a student. A stable interest in politics and the topics of political education lessons can highly influence learning development. Interest is understood as a habitual tendency or as a dispositional characteristic of a person (Krapp, 2002). It is a relatively stable preference for the subject of politics. In contrast, a situational interest is a one-time motivational condition. This does not play a significant

role, however, in comparison to a strong individual interest in politics. The interest in the topics of political education lessons as a dispositional characteristic is a central requirement for learning success in this subject. However, this does not refer to a cognitive ability; instead, an intrinsic interest leads to independent engagement with the topic (example item: “How much are you interested in the following issues?” whereby one of the listed topics is “political issues in your country” from ICCS, 2009 [Schulz et al., 2011, p. 179] with possible answers on a four-point Likert scale ranging from very interested to not at all interested. One cannot assume that all students will be interested in politics; however, a strong interest in politics is a prerequisite for a higher level of political knowledge.

A common finding in many political science studies is that women have a more distant relationship to politics than men. Women participate less in politics, show a lower level of political interest, and inform themselves less about politics (Delli Carpini & Keeter, 2000; Mondak & Anderson, 2004; Mondak & Canache, 2004). Nonetheless, it is not clear that boys’ assumed higher general interest in politics offers them an advantage with regard to knowledge of the EU, because this is a relatively complex area of politics. It also needs to be considered that the effective direction of one’s interest is influenced by the interaction between interest and achievement and by other factors as well. It is possible that one’s higher achievement and especially one’s positive subjective expectations regarding his or her abilities may also lead to a stronger interest in politics (see Köller, 2000).

The second motivational variable studied here is a student’s academic self-concept. The individual compares his or her abilities with those of other students. “Weak students develop a higher self-concept when they are together with other weak students in one class, and they develop an unfavorable self-concept when they are together with better students” (Klauer & Leutner, 2012, p. 135). Students’ self-evaluation of their learning abilities is analyzed in this study as students’ belief that they can create certain results on their own (example item: “If I put in enough effort, I can answer all the questions correctly,” from IGLU, 2006 [Bos et al., 2010, p. 53]). A positive view of one’s abilities has a positive effect on situations where one has to perform a learned task. Lacking adequate findings regarding the influence of one’s country of origin, one cannot assume that one’s migration background has an effect on students’ academic self-concept, political interest, or cognitive activation for this study.

Educational instruction and students’ perceptions of lessons are also affected by context factors. The particular structural conditions that a school provides can have an impact upon learning achievement. While a great deal depends upon the individual teacher, the school conditions can make a decisive impact upon students’ motivation or on the quality of teaching instruction. One of the conditions investigated in this study is social inclusion, in this case inclusive



educational practices. We asked students about their school culture regarding the relationship between teachers and students. Specifically, we asked students to give their perspective on the way teachers deal with students (example item: "Most teachers are interested in students' wellbeing," from ICCS, 2009 [Schulz et al., 2011, p. 170]). We are interested in examining social inclusion and emotional security, which may vary within a school. Positive relationships have positive effects upon students' motivation and achievement. According to Buhl (2003), the more positively a student sees the student-teacher relationship in the political education classroom, the more he or she views being politically active as important. Schmid (2003) was able to show that students' social and emotional inclusion in class had an effect upon their interest in politics (p. 373).

The named competence constructs may vary between individuals. They are examined in more detail as the concepts are differentiated. Measurements were made using cognitive achievement tests, extended by questions on other subsidiary skills and concepts. The different constructs were measured separately in order to adequately differentiate between the subcomponents. Their relationship to each other and to specific characteristics of individuals, to preconditions, and to general development processes is examined.

## RESEARCH DESIGN

The survey asked about students' knowledge of politics and their assessments of the different aspects of school instruction. We only used sets of questions from other studies. For this reason, we did not perform pilot tests. The surveyed students were a random sample of 9<sup>th</sup> and 10<sup>th</sup> grade students in 52 participating classes from mid- and higher-level secondary schools. All students had not yet dealt with the topic of the European Union. The class intervention on the topic of the European Union lasted 7 hours for each of the three participating groups. The questionnaire was handed out before and after the intervention and lasted about 45 minutes each time. The questions in the knowledge test provided brief descriptions of political situations, which had not been dealt with within the lesson series and which were initially new to the students. The teachers did not know what the questions were. During the survey period in 2012 there were no major political events which would have drawn particular attention to the EU. These schools did not have special political days or activities.

The surveys were filled out under the supervision of the research supervisor, who also presented the aims of the survey and the procedures for implementing it. He or she also assured the students about the anonymity of the questionnaire. Before the survey was performed, parents and school directors were informed and permission was gathered from them. The respective teachers were not provided with a view of the individual students' answers, but rather the aggregated data for his or her class. The legal regulations and the direc-

tives for utilizing such tests were followed. The data were analyzed with the statistical programs SPSS, ConQuest, and Mplus.

The treatment groups were dealt with in the following way: The lesson series introduced the students to the structure of the EU, demonstrating the collaboration among EU institutions based on the example of the *Proposal of a Regulation of the European Parliament and of the Council on the Provision of Food Information to Consumers* (European Union, 2008-2011). The material was selected according to aspects of concept learning. We also consistently used a teaching strategy aimed at promoting competence in the area of subject-related knowledge by activating student's development of their own individual interpretations with the help of specialized concepts and terms. A series of cooperative learning methods was used; that is, students organized their learning collaboratively with other students and with teachers. Cooperative learning methods' aim is that students reach individual solutions to problems with the help of other students. One often speaks of informal or progressive instruction, focusing on the acquisition of subject-specific language. The assumption is that these methods help students construct their own knowledge.

In addition, there were two control groups. In both control groups, conventional methods with school books were used. One covered the topic of the European Union using the school textbook, and another covered topics different from the European Union. Conventional methods using school books included, for instance, a teacher-student talk about a text, answering questions together as a group, and the exchange of political opinions. These methods are characterized by a high level of formal instruction.

The instrument "knowledge test" included various topic areas, not just the European Union. The selected items were taken from the knowledge tests mentioned above and integrated into a test book with 35 questions, 21 of which were related to the EU. If students were not able to spontaneously answer a question, they were instructed not to guess but rather to select the response option that they considered to be most likely. The knowledge test thus differed from classroom tests, in which students were primarily supposed to reproduce knowledge in a form identical to that in which it was acquired. The students' knowledge of this topic was assessed using a standardized questionnaire that they completed in written format. The questionnaire comprised a knowledge test with multiple-choice questions that were to be answered by selecting one of the four presented response options.

The knowledge-test questions were identical on both measurement occasions. However, in order to ensure that the participating teachers would not prepare their classes for these tests, students and teachers were informed that the questions in the post-test would differ from those in the pre-test. Nonetheless, practice effects cannot be ruled out, since the students completed the same knowledge test twice. Before the lesson series began, the teaching staff of the

treatment group was instructed to become acquainted with the objectives and feedback strategies of competence-oriented interventions, as well as with the content of the *Proposal of a Regulation of the European Parliament and of the Council on the Provision of Food Information to Consumers* (European Union, 2008-2011).

The students' perceptions of the characteristics of school instruction, of social inclusion, and of the motivation variables were measured using the post-test. Only closed-ended items were examined. The measurement of the lesson characteristics was based on a four-point Likert scale.

A total of 1,071 students took the pre- and post-tests, of which 484 students were in the treatment group, 373 in the control group that worked with the textbook, and 214 in the control group that did not deal with the EU. The sample included 508 girls and 563 boys, and 27.9% of the students had a migration background, which is about the average percentage nationwide. The measurement models for the scale indicated good to acceptable fit-levels: knowledge ( $\chi^2(560) = 882.32, p \leq .01$ ; CFI/TLI = .970; RMSEA = .02); academic self-concept ( $\chi^2(44) = 166.81, p \leq .001$ , CFI = .984, TLI = .980, RMSEA = .05, WRMR = 1.20); social inclusion ( $\chi^2(5) = 12.00, p \leq .05$ , CFI = .995, TLI = .990, RMSEA = .04, WRMR = .5); interest in politics ( $\chi^2(2) = 7.30, p \leq .05$ , CFI = .993, TLI = .979, RMSEA = .05, WRMR = .44) and cognitive activation ( $\chi^2(2) = 3.36, p = ns$ , CFI = .998, TLI = .994, RMSEA = .03, WRMR = .32). The knowledge test was complemented with an additional DIF-test to account for gender, migration background, and type of school.

The study pursued the following questions: Do effective teaching instruction conditions have an impact on the students' knowledge? Do motivation and social inclusion have an effect on learning results? Do the variables "migration background" and "gender" influence the students' perception and achievement?

## DESCRIPTIVE ANALYSES

The following table gives an overview of the properties of the instruments that were used. The reliability of these instruments is good to acceptable.

TABLE 1. *Mean values, standard deviations, and reliability of the predictors*

Predictor	Quality of items	M	SD	$\alpha$
Interest in politics	4	2.55	0.57	.69
Academic self-concept	8	3.10	0.52	.81
Social inclusion	4	2.93	0.51	.76
Cognitive activation	4	3.05	0.58	.64

The correlation among these different instruments shows the following values. There is generally a slight, but positive relationship between academic self-concept

and learning achievement ( $r = .20$ , Hattie, 2008). A positive self-evaluation balance is an effective indicator. In this study, the latent correlation between self-concept and knowledge is  $.31$  ( $p < .001$ ), slightly higher than in Hattie's study. There is a reciprocal effect between these two factors. As expected, there is also a correlation between interest and self-concept,  $.22$  ( $p < .001$ ). A student's social inclusion, that is, the positive relationship between teachers and students, shows a correlation of  $.12$  ( $p < .01$ ) with his or her interest in politics and a correlation of  $.26$  ( $p < .001$ ) with his or her academic self-concept. As expected, social inclusion is highly correlated with the other instructional variable, cognitive activation ( $.56$ ,  $p < .001$ ). The desired positive correlations show empirically significant relationships with the other indicators. Hattie (2008) reports a teacher-student relationship with a medium effect size ( $d = 0.72$ ) and only a slight correlation between self-concept and knowledge ( $.31$ ,  $p < .001$ ). The cognitive activation shows a correlation of  $.31$  ( $p < .001$ ) with interest in politics and of  $.20$  ( $p < .001$ ) with academic self-concept. These moderate results are a first indication of the importance of cognitive activation in supporting academic achievement. This also applies to the correlation between cognitive activation and knowledge ( $.23$ ,  $p < .001$ ).

A student's interest in politics and his or her knowledge show a correlation of  $.27$  ( $p < .001$ ). This confirms our expectation that political interest and subject-specific content knowledge show an average relationship. For this reason, the correlations with regard to knowledge are still within the expected range.

The achievement tests' levels of internal consistency (Cronbach's  $\alpha$ ) were acceptable both before and after the experimental lessons ( $\geq .80$ ). This high level is not surprising considering the large number of items. The data is organized in a normal distribution (see Figure 2). The curve is slightly skewed to the left, indicating a relatively high concentration in the higher ability levels. The level of post-text knowledge is higher for the treatment group than it is for the control group "school textbook" ( $d = 0.313$ ) and for the control group "other topics" ( $d = 0.604$ ). The classes using cooperative learning methods supporting the structuring of concepts (see Hattie, 2008) are more successful than those classes using conventional methods. This finding is significant considering that the existing studies show that conceptual learning does not yet take place in political education classes in Germany (Manzel & Gronostay, 2013). There are no significant gender effects in this case. This is not surprising, since there is not a gender effect in many cases, the gender similarities being stronger than the differences (Hattie, 2008).

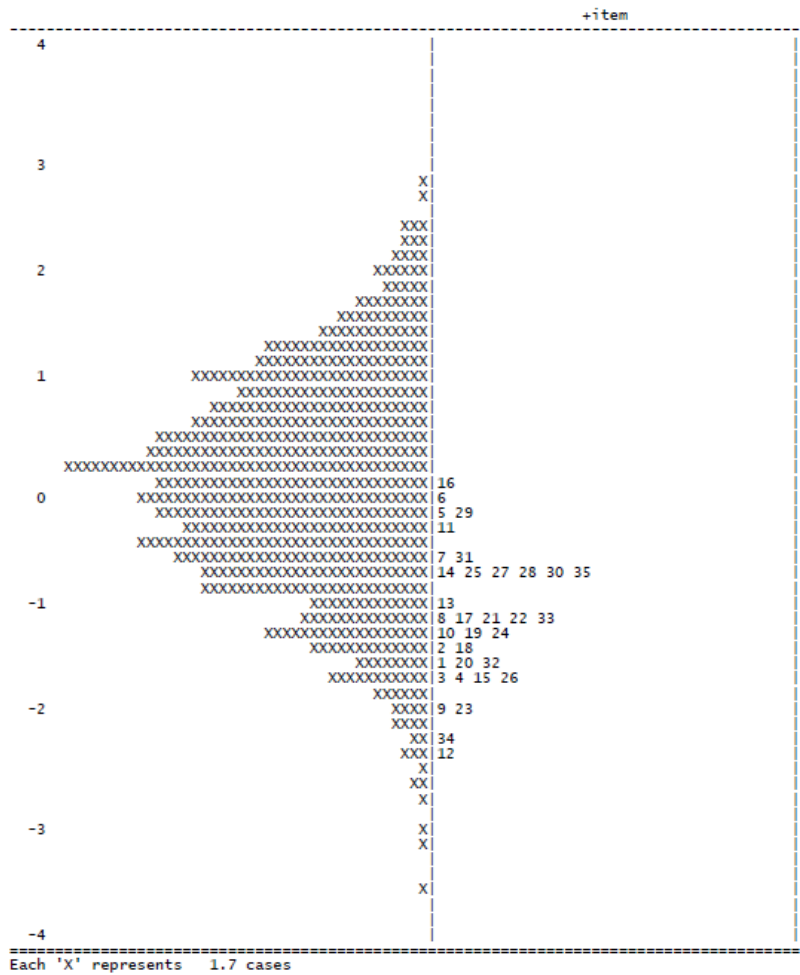


FIGURE 2. *Post-test knowledge*

The box plots in Figures 3 and 4 illustrate the effect of independent variables on knowledge in the post-test. The line within the boxes represents the median values. The difference between boys' and girls' knowledge scores is very slight, at most demonstrating a tendency rather than any significant divergence. Youths with a migration background have significantly lower achievement scores than youths without one. It is also striking that the test results of those students, whose parents were both born in Germany, clearly show stronger variation towards the top and the bottom of the chart.

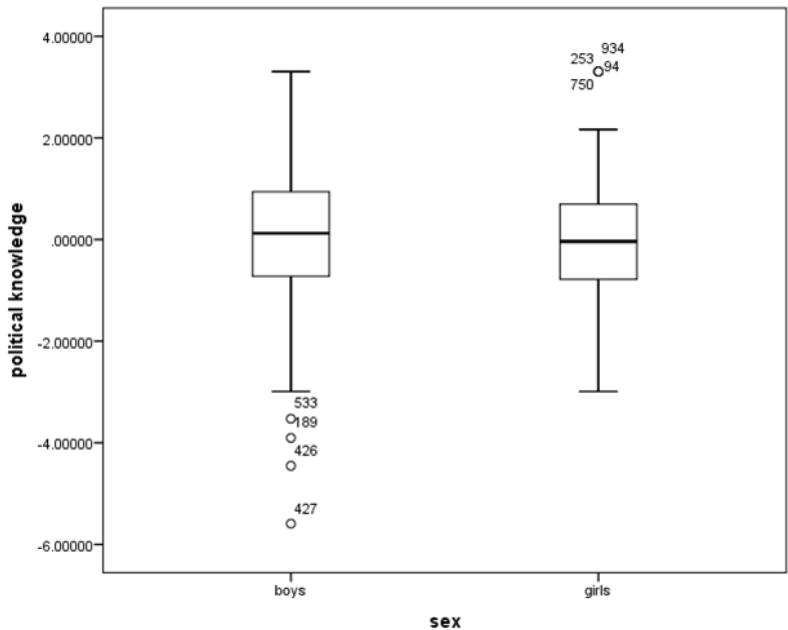


FIGURE 3. Box plots on knowledge shown in the text, according to gender

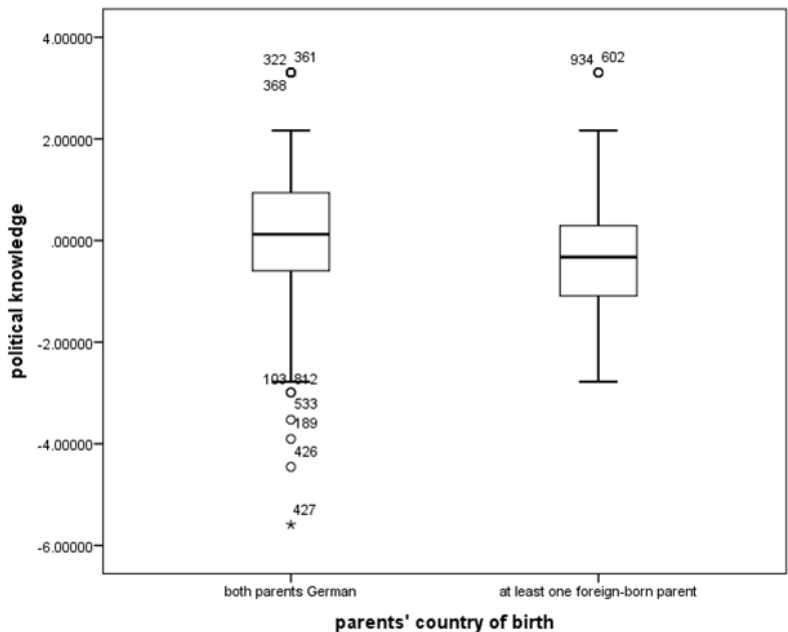


FIGURE 4. Box plots on knowledge shown in text, according to migration background

## FINDINGS

Since the data characteristics fit the expectations well and are satisfactory, we can calculate path analyses using independent variables. The post-test knowledge has been added as a dependent variable. The path model illustrates the relationships between students' interest in politics, cognitive activation, academic self-concept, social inclusion at school, their subject-specific content knowledge, and the personal background variables. The path model shows an acceptable fit with the data ( $\chi^2(306) = 557.45$ ,  $p \leq .001$ , CFI = .963; TLI = .958; RMSEA = .03; WRMR = 1.29).

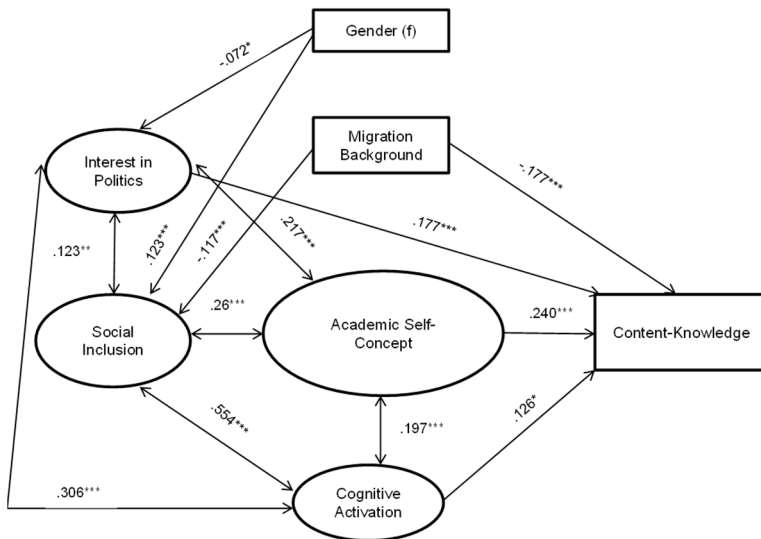


FIGURE 5. Path analyses testing the effects of influential variables on subject-specific content knowledge (\*  $p < .05$ . \*\*  $p < .01$ . \*\*\*  $p < .001$ )

The model shows a moderate relationship between a student's perceived teacher-student interaction and his or her academic self-concept. However, it does not indicate a direct correlation between this aspect of social inclusion and achievement. As expected, social inclusion is strongly linked with the other school instruction variable, cognitive activation; however, it is only slightly correlated with a student's interest in politics. A student's interest in politics is moderately correlated with cognitive activation as well as with his or her academic self-concept. There is also a positive relationship between cognitive activation and a student's academic self-concept. In addition, a student's interest in politics, his or her academic self-concept, and the cognitive activation in the classroom all show an expected slightly positive effect on subject-specific content knowledge. A positive and exploratory educational environment dur-

ing political education instruction can strengthen a student's belief in his or her abilities as well as his or her interest in the topics taught in this context.

Girls benefit a bit more from their perceived social inclusion than boys, and are a bit less interested in politics than boys are. Otherwise there are no visible effects of gender. If a student has at least one parent not born in Germany (migration background), this also has a slight effect upon how he or she perceives the school's teacher-student relationship culture and a moderate effect on his or her subject-specific content knowledge. As expected, this study also shows that cognitive activation has a positive, even if only slight, effect upon students' subject-specific content knowledge. Also, Watermann (2003) found this effect to be weak. Although political education lessons are generally only loosely structured, students' perceived stimulation has a positive impact on learning achievement. Considering the results of Manzel and Gronostay's (2013) video study, we can make guarded interpretations of these results in two directions: that teachers succeed in creating a cognitively activating class, or that high cognitive activation seems possible despite a high focus on factual knowledge. In general, the results show that there is potential for higher quality and more effective teaching instruction. If cognitive activation is the most important quality dimension, then there is some catching up to do. From the students' perspective, it appears that teachers of political education could be offering more cognitive activation in their classes.

Furthermore, the study shows the importance of the competence dimension motivation (Detjen et al., 2012) for improving students' learning results. Political education needs to promote students' academic self-concept as well as their interest in politics. This study shows that both of these motivational predispositions have a moderately positive effect upon achievement, confirming underlying assumptions of motivation theory. These results confirm the expectation that subject interest has a positive effect upon knowledge of that subject, since a higher interest leads one to make more of an effort in class. We can assume that achievement and interest mutually reinforce each other (see Köller, 2000). Interest in politics is a significant factor of competence and is also related to one's self-concept. One's general self-concept concerning one's ability to fulfil the demands of a taught lesson is shown in many studies to influence the development of subject interest (Marsh, 1991).

As an expression of a positive relationship between teachers and students, social inclusion is related to one's academic self-concept and interest in politics, underlining the importance of self-evaluation balances in analyzing this competence dimension. However, in this study, inclusive educational practices did not have the effect upon learning achievement that we had assumed it would have. As expected, the context characteristics social inclusion and cognitive activation correlate. However, the only context characteristic that has a small effect upon learning achievement is cognitive activation, as part of the deep structure of teaching instruction. This interpretation is supported by the effect



sizes for more effective knowledge acquisition through cooperative learning methods, which are cognitively activating.

There are hardly any gender effects in the path model. As opposed to other subjects and as opposed to what was assumed for this subject, there is no substantiated evidence of a gender effect upon students' motivational predispositions or upon their subject-specific content knowledge. The moderate effect upon social inclusion confirms our expectations. Our assumption is that political education hardly offers opportunities for gender-specific differentiation. One can probably assume that there is not a generally negative gender effect for girls in this school subject. This does not imply that this tendency might not change later as girls become adults and are no longer exposed to the intensive social comparisons which take place in school. The contrast between our results and political science research regarding subject-specific content knowledge could also be due to the fact that our study focuses on conceptual knowledge and not on factual questions.

It is surprising that one's migration background hardly shows any effects in this study. Students with a migration background appear to have a similar level of interest in political education classes as other groups, as related to a similar motivation level. However, they are less knowledgeable and feel less socially included. It is possible that teachers generally do not succeed in motivating and supporting particular groups of students.

## DISCUSSION

This study successfully fulfils its aim of empirically examining political education theory by systematically analyzing the competence dimension subject-specific content knowledge and the competence factors self-concept and interest. The results offer the expected evidence that a positive self-concept correlates with positive experiences of competence, for instance in one's own knowledge growth. According to our findings, the subjective view upon one's own abilities and talents is linked to learning achievement. This study confirms that also for political education there is a connection between students' achievement, their academic self-concept, and their interest in the subject. Successes and failures influence one's knowledge about one's own strengths and weaknesses. If a student assumes that he or she will be successful, then he or she will show higher achievement levels. It is also helpful to have cognitively activating lessons. According to the results for different groups of students, appropriate, cognitively activating learning arrangements significantly support a student's structured organization of knowledge.

Students' learning capacity is an important predictor for their success and for their perception of themselves as competent in a political education class setting. Teachers need to communicate knowledge in a structured and cognitively activating way, as well as support the motivation of students with appropriate

individual feedback. If students are convinced that they can fulfil the tasks at hand, they will put forth the necessary endurance and cognitive resources. When students have a low academic self-concept and low subject interest, they tend to avoid working on the tasks at hand. Constructive achievement feedback and high subject interest have a reciprocal effect upon each other (Sjoeberg, 1985), as well as the experience with and behavior in political education classes. A student's self-evaluation balance becomes positive in political education classes when teachers support the development of his or her personality and learning abilities, and to a lesser degree, assure that he or she is socially included. The teachers can support students in their search for the causes for their success and failure. For this, proper feedback is necessary.

## NOTES

1. The 30 concepts are democracy, European actors, European integration, freedom, peace, justice, separation of powers, equality, human rights, interest groups, international relations, conflict, legitimacy, power, mass media, market, human dignity, sustainability, public sphere, public goods, opposition, parliament, parties, constitutional state, government, representation, security, welfare state, state, and elections.

## REFERENCES

- Anderson, J. R. (2000). *Cognitive psychology and its implications* (5<sup>th</sup> ed.). New York, NY: W. H. Freeman.
- Baumert, J., Kunter, M., Blum, W., Brunner, M., Voss, T., Jordan, A., ... Tsai, Y.-M. (2010). Teachers' mathematical knowledge, cognitive activation in the classroom, and student progress. *American Educational Research Journal*, 47(1), 133-180. doi: 10.3102/0002831209345157
- Bos, W., Strietholt, R., Goy, M., Stubbe, T. C., Tarelli, I., & Hornberg, S. (2010). *IGLU 2006. Dokumentation der Erhebungsinstrumente* [Documentation of the IGLU 2006 survey instruments]. Muenster, Germany: Waxmann.
- Buhl, M. (2003). Schulqualität und politische Sozialisation [Quality of schools and political socialization]. *Zeitschrift für Soziologie der Erziehung und Sozialisation*, 23(4), 385-398.
- Cortina, K. S., Makara, K. A., & Gruehn, S. (2010). Learning motivation around the globe: How universal is the role of teacher support? In W. Bos, E. Klieme, & O. Köller (Eds.), *Schulische Lerngelegenheiten und Kompetenzentwicklung* (pp. 195-206). Muenster, Germany: Waxmann.
- Daniels, Z. (2008). *Entwicklung schulischer Interessen im Jugendalter* [Developing interests in school during one's youth]. Muenster, Germany: Waxmann.
- Detjen, J., Massing, P., Richter, D., & Weisseno, G. (2012). *Politikkompetenz – ein Modell* [Political Competence – A model]. doi: 10.1007/978-3-658-00785-0
- Delli Carpini, M. X., & Keeter, S. (2000). Gender and political knowledge. In S. Telleson-Rinehardt & J. J. Josephson (Eds.), *Gender and American politics* (pp. 21-52). New York, NY: M. E. Sharpe.
- European Union (2008-2011). *Proposal for a Regulation of the European Parliament and of the Council on the provision of food information to consumers*. Procedure 2008/0028/COD. Retrieved from <http://eur-lex.europa.eu/procedure/EN/196686>
- Fleischer, J., Leutner, D., & Klieme, E. (2012). Modellierung von Kompetenzen im Bereich der Bildung: Eine psychologische Perspektive [Modelling of competencies in the area of education. A psychological perspective]. *Psychologische Rundschau*, 63(1), 1-2.

- Goll, T., Richter, D., Weisseno, G., & Eck, V. (2010). Politisches Wissen von Schüler/-innen mit und ohne Migrationshintergrund (POWIS-Studie) [Political knowledge among school children with and without a migrant background (POWIS-Study)]. In G. Weisseno (Ed.), *Bürgerrolle heute. Migrationshintergrund und politisches Lernen* (pp. 21-48). Farmington Hills, MI: Barbara Budrich.
- Hartig, J., & Klieme, E. (2006). Kompetenz und Kompetenzdiagnostik [Competence and competence diagnostic]. In K. Schweizer (Ed.), *Leistung und Leistungsdiagnostik* (pp. 127-143). Heidelberg, Germany: Springer.
- Hattie, J. (2008). *Visible learning: A synthesis of over 800 meta-analyses relating to achievement*. London, UK: Routledge.
- Klauer, K. J., & Leutner, D. (2012). *Lehren und Lernen* [Teaching and learning]. Weinheim, Germany: Beltz.
- Köller, O. (2000). Soziale Vergleichsprozesse im Kurssystem der gymnasialen Oberstufe [Social comparison processes in the grammar school sixth form's course system]. In J. Baumert, W. Bos, & R. Lehmann (Eds.), *TIMSS/III. Band II: Mathematische und physikalische Kompetenzen am Ende der gymnasialen Oberstufe* (pp. 181-214). Opladen, Germany: Leske + Budrich.
- Krapp, A. (2002). Structural and dynamic aspects of interest development: Theoretical considerations from an ontogenetic perspective. *Learning and Instruction*, 12(4), 383-409.
- Kunter, M., & Trautwein, U. (2013). *Psychologie des Unterrichts* [Psychology of teaching instruction]. Paderborn, Germany: Schöningh.
- Lipowsky, F. (2009). Unterricht [Teaching instruction]. In E. Wild & J. Möller (Eds.), *Pädagogische Psychologie* (pp. 73-102). Berlin, Germany: Springer.
- Manzel, S., & Gronostay, D. (2013). Videografie im Politikunterricht – Erste Ergebnisse einer Pilotstudie zu domänenspezifischen Basisdimensionen [Videography in political education instruction: First findings of a pilot study on domain-specific basic dimensions]. In U. Riegel & K. Macha (Eds.), *Videobasierte Kompetenzforschung in den Fachdidaktiken* (pp. 198-215). Muenster, Germany: Waxmann.
- Marsh, H. W. (1991). The failure of high-ability high schools to deliver academic benefits: The importance of academic self-concept and educational aspirations. *American Educational Research Journal*, 28, 445-480.
- Mondak, J., & Anderson, M. R. (2004). The knowledge gap: A reexamination of gender-based differences in political knowledge. *The Journal of Politics*, 68, 492-512.
- Mondak, J., & Canache, D. (2004). Knowledge variables in cross-national social inquiry. *Social Science Quarterly*, 85, 539-558.
- Oberle, M. (2012). Pupils' political knowledge regarding the European Union. *Citizenship, Social and Economics Education*, 11(2), 89-104.
- Schmid, C. (2003). Fördert der Schulunterricht an Gymnasien das politische Interesse von Jugendlichen? [Does instruction in grammar schools encourage an interest in politics among youth?] *Zeitschrift für Soziologie der Erziehung und Sozialisation*, 4, 371-384.
- Schulz, W., Ainley, J., & Fraillon, J. (Eds.). (2011). ICCS 2009. *Technical report*. Amsterdam, Netherlands: International Association for the Evaluation of Educational Achievement.
- Sjoberg, L. (1985). Interest, effort, achievement, and vocational preference. *British Journal of Educational Psychology*, 54, 189-205.
- Watermann, R. (2003). Diskursive Unterrichtsgestaltung und multiple Zielerreichung im politisch bildenden Unterricht [Discursive designing of school instruction and achieving multiple aims in political education classes]. *Zeitschrift für Soziologie der Erziehung und Sozialisation*, 4, 356-370.
- Weisseno, G., & Eck, V. (2012). Increase in knowledge about the European Union in political education lessons. Results of an intervention study. *Citizenship Teaching and Learning*, 7(3), 307-324. doi: 10.1386/ctl.7.3.307\_1

Weisseno, G. (2015). Political didactics and political education in Germany. In K. Kennedy & A. Brunold (Eds.), *Regional contexts and citizenship education in Asia and Europe* (pp. 53-65). London, United Kingdom: Routledge.

Wigfield, A., & Eccles, J. S. (2002). *Development of achievement motivation*. San Diego, CA: Academic Press.

GEORG WEISSENO is Professor of Political Science and its Didactics at Karlsruhe University of Education with key interests in citizenship education, education policy, evaluation methodologies, and quantitative research. Prior to joining Karlsruhe University of Education in 1999, Georg worked from 1995 to 1999 at the University of Wuppertal. He served from 2002 to 2006 as Chair of the German Society for Civic Education Didactics and Civic Youth and Adult Education (GPJE).

BARBARA LANDWEHR is a Research Assistant and PhD candidate at the Institute of Political Science at Karlsruhe University of Education with research interests in citizenship education and quantitative research.

GEORG WEISSENO enseigne les sciences politiques et leurs méthodes pédagogiques à la *Karlsruhe University of Education*. Il a un intérêt marqué pour l'éducation à la citoyenneté, les politiques éducationnelles, les méthodologies d'évaluation et la recherche quantitative. Avant de rejoindre les rangs de la *Karlsruhe University of Education* en 1999, Georg a travaillé à l'*University of Wuppertal* de 1995 à 1999. Il a occupé le poste de président de la *German Society for Civic Education Didactics and Civic Youth and Adult Education (GPJE)* de 2002 to 2006.

BARBARA LANDWEHR est assistante de recherche et doctorante à l'Institut de sciences politiques de la *Karlsruhe University of Education*. Ses intérêts de recherche sont l'éducation à la citoyenneté et la recherche quantitative.