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# ARE CLASSROOM DISCUSSIONS ON CONTROVERSIAL POLITICAL ISSUES IN CIVIC EDUCATION LESSONS COGNITIVELY CHALLENGING? A CLOSER LOOK AT DISCUSSIONS WITH ASSIGNED POSITIONS

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**Abstract**

*Discussing controversial political issues in class provides rich opportunities for cognitively activating learning processes, i.e. in-depth processing of learning content and higher-order thinking processes. However, relating the features of a given argumentative design to specific learning outcomes is a tricky endeavor, as this theoretical paper aims to illustrate through the example of a discussion with assigned positions (for/against) in civic education classes. The potential of such discussion settings for cognitive activation was examined by considering the features of the overall argumentative design, task configurations, and learning activities. More concretely, it is argued that controversial discussions with assigned positions constitute three different task configurations depending on the relationship between a student's personal and assigned positions. Based on the ICAP framework (Chi & Wylie, 2014) for cognitive engagement, the paper further shows that students may take part in various modes of learning activities within a single instructional setting (although to different degrees). These findings point to the need to develop "more local" (Mandl & Renkl, 1992) or "middle-range" theories (Mutz, 2008) of learning through argumentation.*

**Keywords**

*argumentation, civic education, cognitive activation, controversial issues, cognitive engagement*

## Introduction

Arguing about controversial political issues is an important cultural technique in pluralistic modern democracies. Within the German academic branch of civic education, it is regularly associated with learning goals such as fostering reflective judgment and consolidating conceptual knowledge (Detjen, Massing, Richter, & Weißeno, 2012). These require challenging, higher-order thinking processes, referred to in the German-speaking discourse on teaching quality as "cognitive activation" (Lipowsky, 2015, p. 89; Praetorius, Klieme, Herbert, & Pinger, 2018). In fact, a discursive teaching style has shown positive associations with cognitive and non-cognitive outcomes, such as political content knowledge (Alivernini & Manganelli, 2011; Torney-Purta, Lehmann, Oswald, & Schulz, 2001), democratic attitudes and tolerance (Blaskó, da Costa, & Vera-Toscano, 2019; Gniewosz & Noack, 2008), and political efficacy (Campbell, 2008; Hess & Posselt, 2002).

However, in light of the multitude of argumentative designs, it seems unlikely that one can relate controversy and discussion per se to specific learning outcomes. Argumentative designs may vary regarding goal instruction (competitive vs. cooperative), ideological diversity in the learning group (homogeneous vs. heterogeneous), assigned positions (vs. personal views), the need to speak up in stage-like settings (vs. small-group discussions), and so on. Therefore, in order to design instructional settings properly, it would be valuable to gain more insights into the potential of different types of argumentative designs to foster specific aspects of political competencies and domain-general skills. Given that it is not possible to go into all types here, the focus will be on student-centered classroom discussions with assigned positions (for/against) because there has been little theory and evidence to date focusing on the effects of such instructional settings. Moreover, a practice-inspired approach will be adopted; a commonly used discussion method in civics – fishbowl discussions – will be examined regarding its potential for cognitive activation. In this setting, some students argue in an inner circle while the other students are seated in an outer circle around them. Students may voluntarily join the inner circle at any time to advocate for their assigned position.

The purpose of this theoretical paper is to closely examine the potential of controversial discussions with assigned positions to initiate cognitively activating learning processes. After a brief presentation of the concept of cognitive activation, the (fishbowl) discussion setting with assigned positions will be analyzed from three complementary perspectives: a) dialogue types based on the theory of constructive controversy (Johnson, 2015), b) task configurations in a discussion with assigned positions, and c) modes of

cognitive engagement according to the interactive, constructive, active, and passive "(ICAP) framework" (Chi & Wylie, 2014). The analysis starts with the features of the overall argumentative design, moves on to specific task configurations (due to position assignment), and, in the final step, considers the different modes of learning activities associated with the discussion setting.

## Cognitive activation

In addition to classroom management and student support, cognitive activation is a core dimension of high-quality instruction according to the most prominent framework for teaching quality in German-speaking countries (*the "Three Basic Dimensions" framework*, Praetorius et al., 2018). It denotes in-depth processing of learning content and higher-order thinking processes, initiated, for example, by cognitive conflicts (Lipowsky, 2015, p. 89; Praetorius et al., 2018). Indicators of cognitive activation cover several sub-dimensions, such as a genetic-Socratic teaching style, discursive and co-constructive learning, challenging tasks, and activation of students' prior knowledge (Praetorius et al., 2018, p. 414). Since cognitive activation refers to cognitive processes, which are not directly observable, these indicators are focused on tasks or learning activities in order to examine their potential for higher-order thinking. The construct is closely related to "thoughtful discourse" (Brophy, 2000; Walshaw & Anthony, 2008) and "accountable talk" (Resnick, Asterhan, & Clarke, 2018), which describe observable features of high-quality discussion processes.

At least three reasons support the notion that classroom discussions on controversial political issues can be considered cognitively activating. First, controversial political issues are complex and contingent, lack clear-cut solutions, and involve multiple perspectives (Detjen et al., 2012, p. 43). Engaging in a controversial discussion on political issues requires the application of (previously acquired) conceptual knowledge about the issue under discussion and the evaluation of different political standpoints and corresponding argumentation. Thus, discussion-based learning settings aim at higher-order thinking processes according to the revised version of Bloom's taxonomy (Anderson & Krathwohl, 2001). Second, controversy provides a necessary (but not sufficient) condition for provoking cognitive conflict (Posner, Strike, Hewson, & Gertzog, 1982). Confrontation with opposing views and conflicting cognitions may result in epistemic curiosity and the incorporation of new information and/or new conclusions (Johnson, 2015, p. 40). Students are cognitively activated (or engaged) when they

deeply think about content matter, compare and contrast divergent views, or even reconsider their own standpoints (Hess, 2009; Lipowsky, 2015, p. 89). Third, in classroom discussions students are supposed to take an active role in the learning process and interact with classmates. Active learning, as opposed to the receptive or transmissive modes of instructional design, is postulated by (social) constructivist learning theories (Chi, 2009; Chi & Wylie, 2014) and also represents a sub-dimension of cognitive activation (Praetorius et al., 2018, p. 414). In the following, the (fishbowl) discussion setting with assigned positions and its potential for cognitive activation will be examined more in depth from three complementary perspectives, beginning with the features of the overall argumentative design.

## Features of the argumentative design: Ideological diversity and goal instruction

This chapter introduces the ideological diversity of the learning group (homogeneous vs. heterogeneous) and goal instruction (cooperative vs. competitive) as relevant factors of cognitive activation in argumentative design. The rationale largely builds upon the theory of constructive controversy (Johnson, 2015) combined with considerations from civic education research (Hess, 2009; Reinhardt, 2015). Table 1 depicts the different dialogue types.

### *Ideological diversity*

The socially constructed nature of political controversy (Hess, 2009, p. 114) implies that teachers do not always know for sure if an issue will evoke controversy in a specific learning group. As in the case of "cumulative talk" in collaborative group work (Mercer, 1996), there may not be any disagreement among students when they are discussing a political issue in class ("authentic consensus;" see Table 1). Moreover, studies from the political sciences report that people tend to avoid discussing controversial political issues if they anticipate disagreement (e.g., Gerber, Huber, Doherty, & Dowling, 2012). Holders of minority opinions are likely to experience normative pressure for conformity and tend to adopt their views to the mainstream – either genuinely (e.g., Myers & Lamm, 1976) or by pretending to acquiesce while disagreeing in private (Davis, Stasson, Ono, & Zimmerman, 1988). This corresponds to the dialogue type "concurrence-seeking." At the surface level of observable speech acts, authentic consensus and concurrence-seeking are hard to distinguish because both involve cumulative talk. Due to the absence of opposition and divergent views, these dialogue types provide little potential for cognitive activation.

Table 1
*Dialogue-types*

| | **Authentic consensus** | **Concurrence-seeking** | **Cooperative controversy** | **Competitive controversy** |
|---|---|---|---|---|
| **Learning environment**<br>Ideological diversity (Reinhardt, 2015) and goal instruction (Johnson & Johnson, 2009) | Only one view on the issue under discussion | Dominant view on issue under discussion, conformity pressure | Two or more views on the issue under discussion, cooperative goal instruction | Two or more views on the issue under discussion, competitive goal instruction |
| **Learning activities**<br>Type of talk (Mercer, 1996) and speech acts (Felton et al., 2009, 2015) | Cumulative talk: co-construction (e.g., agreement, elaboration, repetition) | Cumulative talk: co-construction, (e.g., agreement, elaboration, repetition) | Explorative talk: co-construction, opposition, and integration (e.g., concession) | Disputational talk: opposition (e.g., counterargument, disagreement, rebuttal) |
| **Cognitive processes**<br>(Johnson & Johnson, 2009, p. 38 ff.; Johnson, 2015) | Co-constructing a line of reasoning supporting own position (no motivation to reconsider) | Ignoring, avoiding opposing arguments/positions (motivation to avoid conflict) | Integrating opposing arguments/positions, revising own beliefs (motivated by epistemic curiosity) | Rejecting opposing arguments/positions (motivation to adhere to own position) |
| **Cognitive activation** | Low potential | Low potential | High potential | Medium potential |

Based on Johnson (2015); Johnson & Johnson (2009, p. 38ff).

*Goal instruction*

The goal of a discussion-based classroom setting may establish cooperative or competitive interdependence among students. Positive (negative) interdependence exists when students perceive that they can reach their goal only if other students with whom they are cooperatively (competitively) linked also reach (fail to reach) their goal (Johnson, 2015, p. 7). The theory of constructive controversy (Johnson, 2015; Johnson & Johnson, 2009) posits that positive interdependence is more likely to result in productive argumentation and positive learning outcomes (e.g., perspective-taking skills, motivation) than negative interdependence is, which is underscored by the results of a meta-analysis (Johnson & Johnson, 2009). Similarly, several education scholars have provided evidence that deliberative goal instruction outperforms disputative argumentation (Felton, Garcia-Mila, & Gilabert, 2009; Felton, Garcia-Mila, Villarroel, & Gilabert, 2015; Johnson, 2015; Mercer, 1996).

The assignment of positions (e.g., for or against) for in-class discussion guarantees a balanced representation of different views on a controversy (and thereby prevents groupthink). However, it implies negative interdependence because the students aim at presenting their (assigned) position on the controversy as the most compelling one ("competitive controversy"). Compared to the other dialogue types, it thus provides medium potential for cognitive activation. The following section will further examine the conditions for cognitive activation in competitive controversy by taking a closer look at the task configurations that result from position assignment.

## Assigned positions for in-class discussion

Three task configurations can be distinguished in discussions with assigned positions depending on the relationship between a student's personal and assigned positions (see Table 2). In the *coherence* condition, a student's personal position (e.g., for) on a controversy coincides with the randomly assigned one (e.g., for). Given the competitive character of the discussion setting, it is not very likely that opposition from classmates would provoke epistemic curiosity or cognitive conflict (see the previous section). There is therefore little or no incentive for students to reconsider their own positions and underlying reasons. In contrast, the odds of experiencing confirmation bias – defined as unconsciously selecting and processing information in a way that favors existing beliefs (Nickerson, 1998; Villarroel, Felton, & Garcia-Mila, 2016) – are relatively high compared to those for the other task configurations.

In the *divergence* condition, the student's personal position (e.g., for) and assigned position (e.g., against) are in conflict. Such students must therefore advocate arguments and positions they personally dislike, construct counterarguments to their own positions, and defend their assigned positions against critique in order to fulfill the task requirements. They are thus exposed to two kinds of divergence that might trigger cognitive conflict (Festinger, 1957; Posner et al., 1982): divergent cognitions (personal vs. assigned positions and corresponding lines of reasoning) and a divergence between their own views and the communicative actions in the discussion.

In the *indifference* condition, the student does not yet hold a personal position on the controversy when assigned a position. Given the absence of a personal position, neither cognitive conflict nor confirmation bias are very likely to occur. The potential of this task configuration for cognitive activation therefore depends primarily on the cause of the student's indifference. It may arise from a lack of interest in the topic for discussion. Alternatively, students might feel the need to acquire more information in order to develop a personal position or they may consider arguments for and against as equally important and therefore be unwilling to take a side.

Empirical evidence provides support for the assumption that position assignment influences learning activities and outcomes. A study in German civic education classes (grades 8/9) found that students arguing a divergent position were more likely to adopt their assigned position, but less likely to take voluntarily part in the discussion, even when gender, personality traits, and communicative disposition were controlled for (Gronostay, 2019a). A study on Finnish upper secondary students reported that argument quality was higher in students defending an assigned standpoint versus their own (Salminen & Marttunen, 2018, p. 89). Likewise, research on attitude change has supported the notion that assigned positions might influence political views (Budesheim & Lundquist, 1999; Gronostay, 2019a; Lilly, 2012).

Table 2
*Task configurations in discussions with assigned positions*

| | **Coherence** | **Divergence** | **Indifference** |
|---|---|---|---|
| **Task configuration** Relationship between personal and assigned positions | Personal position matches assigned position | Personal position conflicts with assigned position | No personal position on the controversy (yet) |
| **Learning activities** Focus on *argumentative* learning activities | Generating reasons for own position, countering reasons for opposing position, defending reasons for own position against critique | Generating reasons for opposing position, countering reasons for own position, defending reasons for opposing position against critique | Generating reasons for position P, countering reasons for position Q, defending reasons for position P against critique |
| **Cognitive processes** (Nickerson, 1998; Villarroel et al., 2016) | High likelihood of confirmation bias, low likelihood of experiencing cognitive conflict | Low likelihood of confirmation bias, high likelihood of experiencing cognitive conflict | Confirmation bias does not apply, low likelihood of experiencing cognitive conflict |
| **Cognitive activation** | Low potential | High potential | Low to medium potential |

Based on Gronostay (2019b)

To sum up, a single discussion setting – a moderately competitive discussion with assigned positions – results in different task configurations depending on the relationship between a student's personal and assigned positions. The coherence condition provides few incentives for students to reconsider their own positions or arguments (due to confirmation bias). In contrast, the divergence condition is more likely to result in cognitive activation (higher probability of cognitive conflict). The outcomes of the indifference condition depend on the cause of the student's indifference towards the issue under discussion. Having dealt with the features of the overall argumentative design and specific task configurations due to position assignment, the following section will investigate modes of cognitive engagement according to the ICAP framework.

## Cognitive engagement according to the ICAP framework

Controversial discussions in regular civic education classroom settings are not stand-alone activities. They usually consist of a pre-discussion phase (preparation), a discussion phase, and a post-discussion phase (evaluation). This section expands on the previous analysis by examining learning activities in all of these phases against the background of the ICAP framework. The ICAP framework is especially suitable in this respect because it focuses explicitly on the process dimension of learning and different modes of learning activities, whereas alternatives, for example Bloom's taxonomy, intend to categorize learning goals (Chi & Wylie, 2014, p. 240).

The ICAP framework differentiates among four modes of learning activities: passive, active, constructive, and interactive. According to the ICAP hypothesis, along with these modes come differences in cognitive engagement and learning outcomes (Chi, 2009, p. 88; Menekse, Stump, Krause, & Chi, 2013, p. 365). More concretely, interactive learning produces better outcomes than constructive learning and so on (interactive > constructive > active > passive). Empirical evidence validates the ICAP hypothesis, especially in the context of complex (vs. simple, reproductive) learning tasks and in explaining differences in learning outcomes between (vs. within) modes (Chi, 2009; Chi & Wylie, 2014; Menekse et al., 2013).

The boundaries among the modes of the ICAP framework are "not meant to be totally rigid," but it is rather assumed that higher modes subsume lower ones (Chi & Wylie, 2014, p. 225). Attending and receiving processes characterize the passive mode. This results in "minimal understanding," that is, students can reproduce subject-matter content, but information is only stored episodically and not integrated into relevant cognitive schemes (Chi & Wylie, 2014, p. 221). The active mode involves the manipulation of learning material (e.g., highlighting key words in a text). It produces "shallow understanding"; students can transfer the newly acquired information only in very similar contexts (Chi & Wylie, 2014). In the constructive mode, students generate an outcome and draw new conclusions that go beyond the information given in the learning materials (Chi & Wylie, 2014, p. 222). The interactive mode is essentially the same as the constructive one, but additionally requires that students substantially build on each other's contributions (Chi & Wylie, 2014, p. 223). The constructive and interactive modes both produce "deep understanding" (Chi & Wylie, 2014, p. 223). Given these descriptions, constructive and interactive learning activities are considered cognitively activating.

Table 3
*Application of the ICAP framework (Chi & Wylie, 2014) to learning activities in a controversial discussion*

| | **Passive** | **Active** | **Constructive** | **Interactive** |
|---|---|---|---|---|
| **Pre-discussion phase** – all students | Reading informative text materials in order to prepare for the discussion | Manipulating informative text materials (e.g., highlighting what is important, quoting arguments given in the text) | Generating new arguments (not explicitly given in the text material), preparing counter-critiques and comebacks (individual work) | Generating new arguments (not explicitly given in the text material), preparing counter-critiques and comebacks (teamwork) |
| **Discussion phase** – students voluntarily taking part in the discussion | Passive phases within the discussion while waiting for their turn | Articulating statements prepared for the discussion (e.g., reproducing prepared arguments or counterarguments) | Articulating statements that develop within the discussion (not prepared), but not building on statements by discussants (e.g., developing new arguments) | Articulating statements that develop within the discussion (not prepared) and building on statements by discussants (e.g., rebuttal, integrating critique) |
| **Discussion phase** – students preferring to observe the discussion | Observing the discussion (not taking notes) | Taking notes on an observation sheet focused on reproduction (e.g., which arguments are being mentioned) | Taking notes on an observation sheet focused on analysis and reflection (e.g., which arguments are defended/ withdrawn) | Regularly none (or: cooperative analysis of the discussion via live chat) |
| **Post-discussion phase** – all students | Main discussion points are summarized by the instructor (students listen) | Summarizing discussion main points with a focus on reproduction (teacher-led classroom talk) | Reflecting on the discussion, e.g. transfer to similar controversies (teacher-led classroom talk) | Co-constructively reflecting on the discussion, e.g. transfer to similar controversies (student-centered classroom talk) |

Table 3 shows an application of the ICAP modes to argumentative learning activities in a controversial discussion with assigned standpoints. It is necessary to consider activities in the first (preparation) phase in order to determine the engagement mode of activities in the subsequent (discussion) phase. For example, articulating an argument for/against may correspond to either the active mode (if this specific argument was given explicitly in the learning material or generated in the preparation phase) or the constructive mode (when it was generated in the discussion). Overall, Table 3 illustrates that all modes of cognitive engagement may be realized in a discussion setting and only some of the communicative activities even in the discussion phase are truly interactive (i.e., generative and building on the reasoning of others). Finally, although the ICAP framework is more fine-grained than the dialogue types presented in the previous section (see Table 1), it points to comparable conclusions. Cooperative controversy involves generative *and* interactive modes of learning, whereas a competitive discourse goal tends to undermine the quality of interaction and consensus interaction might lack generative features.

## Discussion

Generally, classroom discussions on controversial political issues seem to provide ideal conditions for students' cognitive activation because they involve student-centered and discursive learning activities on complex and ill-defined issues that lack clear-cut solutions. However, given the variety of argumentative designs, the purpose of this theoretical paper was to closely examine the potential of controversial discussions with assigned positions (for/against) to initiate cognitively activating learning processes. In order to answer the research question, the paper addressed three complementary perspectives on (fishbowl) discussions with assigned positions. The overall dialogue features, effects of position assignment, and modes of cognitive engagement according to the ICAP framework (Chi & Wylie, 2014) were considered.

The findings of this study must be viewed in light of some limitations. Cognitive activation, as in-depth processing of learning content, is partly a domain-specific dimension of high-quality teaching. However, the analysis did not focus on the content quality of discussions. Therefore, the conclusions drawn in this paper presuppose that students adequately utilize subject-matter content and address the issue under discussion. Furthermore, this paper for the most part focused on cognitive conflict as a cause for cognitive activation because controversial discourse and divergent views on political issues seem to be a good starting point in this regard. However, "reasonable disagreement" (Rawls, 1993) in political controversies relies primarily on differences in

political interests, values, and ideologies and only in part on disagreements about the truth of propositions. For this reason, as Kuhn and Lao (1998) have pointed out, adopting another political standpoint does not necessarily go along with "increased explanatory coherence" (Kuhn & Lao, 1998, p. 127). For example, students with relativistic epistemological beliefs who perceive political standpoints as entirely subjective might not feel challenged when confronted with divergent political views.

According to the theory of constructive controversy (Johnson, 2015), discussions with assigned positions can be categorized as competitive controversies that provide medium potential for cognitive activation (compared to consensus or cooperative dialogue). On the one hand, position assignment guarantees controversy and thereby prevents groupthink; on the other hand, it implies negative interdependence, which favors "closed-minded rejection" of counterarguments and critique (Johnson & Johnson, 2009, p. 40). Johnson's typology is theoretically and empirically well-grounded and useful given that it consists of only a few clearly distinguishable dialogue types and explains differences in learning outcomes. However, due to this global perspective on dialogue types, the typology does not account for differences in students' engagement in the discussion (e.g., discussant vs. observer) or shifts between dialogue types *within* one and the same communicative setting. Examples of the latter include sequences of consensus or competitive discourse embedded in a cooperative discussion (Gronostay, 2016) and sequences that aim at sensemaking followed or preceded by sequences of persuasion (Rapanta & Christodoulou, in press).

Further analysis revealed that discussions with assigned positions constitute quite different task configurations depending on the relationship between a student's personal and assigned positions on a controversy. While students in the coherence condition have little or no incentive to reconsider their own position or reasoning (due to confirmation bias), students in the divergence condition are much more likely to experience cognitive conflict. Therefore, task configurations within a single discussion setting differ regarding their potential for cognitive activation, with higher potential for the divergence condition and lower potential for the coherence and indifference conditions. Moreover, the coherence condition offers motivational incentives especially for those students who wish to express and discuss their personal political views in class, whereas the divergence condition challenges the students to "walk in someone else's shoes," that is, advocate for a disliked political standpoint (but also offers the option to hide behind a role/position). All in all, these findings show that position assignment in educational settings is an effective didactic tool that influences learning activities and outcomes and can be used for differentiation in learning processes.

Analysis based on the ICAP framework demonstrated that students' learning activities in a discussion with assigned positions may cover the full range of modes of cognitive engagement. Challenging learning tasks such as controversial discussion thus bear great potential for higher-order thinking, but also imply greater variance in students' performance. Since students differ in their engagement in teacher-led classroom talk (Lipowsky, Rakoczy, Pauli, Reusser, & Klieme, 2007; Sedova et al., 2019), it is plausible to assume that this may hold even more true for controversial discussions. Teachers could provide instructional scripts or scaffolds or establish ground rules in order to make sure that students engage in comparable learning activities (quantitatively and qualitatively). However, small-stepped instructional design may result in overly simple, lower-order thinking tasks. Thus, a central difficulty in designing cognitively activating instruction lies in providing an adequate level of challenge and support.

Returning to the question posted in the title of this paper, the analysis points to different, though not contradictory conclusions regarding the potential of discussions with assigned positions for cognitive activation. Taken together, these findings put into doubt that this discussion setting triggers cognitive activation in the majority of students in naturalistic classrooms. The range of related learning activities is simply too broad and differs largely among task configurations. Probably, the main trigger for cognitive activation in this setting (especially under the divergence condition) is not so much the discussion itself (due to its competitiveness), but preparatory activities prior to the discussion (preparing to advocate for an assigned position at variance with a personal standpoint). Moreover, the more students adhere to prepared arguments in the discussion, the more it becomes a reproductive activity instead of a constructive (or interactive) one. Likewise, the less students integrate ideas from their classmates (due to competitiveness and position assignment), the more the discussion turns into sequences of "individual dialogue" (Chi & Wylie, 2014, p. 223) rather than genuine argumentation. If competitive discussion is not the method of choice for enhancing in-depth learning processes and reflective judgment in civics, it may help develop communicative political action competence and/or meta-understanding regarding varied political talk formats (when explicitly addressed). Finally, the paper underscores the need to develop "more local" (Mandl & Renkl, 1992) or "middle-range" theories (Mutz, 2008) of learning through argumentation.

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