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# Teaching strategies for value-loaded critical thinking in philosophy classroom dialogues

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## ABSTRACT

An important aim in education is that students learn to think critically about moral values. In this exploratory multiple case study, we analyze teaching strategies to promote *value-loaded critical thinking* in philosophical whole-class dialogues. We observed 15 philosophy classroom dialogues, led by five experienced philosophy teachers, and we selected seven dialogues in which moral values were explicitly discussed for further qualitative analysis. In these value-loaded dialogues, we identified three categories of teaching strategies that were used by the teachers to promote critical thinking about moral values: teaching strategies for 1) addressing, 2) applying and 3) arguing about moral values. We also looked for transfer-oriented teaching strategies and found that the teachers made the learning content more meaningful and created intercontextuality; however, we found no examples of metacognitive reflection. In this paper, we give a detailed description of the identified teaching strategies.

## 1. Introduction

In a diverse society in a globalized world, young people should learn to think critically about moral and societal issues. Critical thinking is traditionally described as higher order thinking involving logical reasoning (Facione, 1990). A critical thinker has good reasoning skills, is open-minded, and evaluates reasons for and against a viewpoint before judging (Facione, 1990). This traditional concept of critical thinking has been criticized for its one-dimensional focus on reasoning criteria and a lack of reflection on the meaning, social relations, and consequences of judgments (Ten Dam & Volman, 2004). More recently, critical thinking has been conceptualized as an inherently normative competence focused on making moral value judgments about which actions are worth pursuing and why (Davies & Barnett, 2015; Frijters, ten Dam & Rijlaarsdam, 2008). In accordance with Frijters et al. (2008), we call this *value-loaded critical thinking*.

It has been widely argued that classroom dialogue plays a vital role in critical thinking education (Kim & Wilkinson, 2019; Ten Dam & Volman, 2004; Wilkinson et al., 2017), as well as in critical moral education (Schuitema, Ten Dam & Veugelers, 2008; Veugelers, 2011). Furthermore, there is a growing body of empirical research on dialogic approaches to reasoning and critical thinking education (Fair, Haas, Gardosik, Johnson & Leipnik, 2015; Gorard, Siddiqui & See, 2015; Oyler, 2019; Reznitskaya et al., 2012; Topping & Trickey, 2004, 2007; Yan, Walters, Wang & Wang, 2018). These studies provided insight into pedagogical principles and facilitation strategies (Oyler, 2019; Wilkinson et al., 2017) and evaluated the effectiveness of dialogic interventions for developing students' reasoning capacities (Fair et al., 2015; Gorard et al., 2015; Reznitskaya et al., 2012; Topping & Trickey, 2004, 2007). Significantly less

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is known about teaching a more moral conception of critical thinking: how can teachers facilitate classroom dialogues in which moral questions, moral values, and ethical judgments are critically examined? Previous research has been mostly theoretical and has described how to approach dialogic moral education in a philosophical and critical manner (Cam, 2016; Sprod, 2001; Veugelers, 2000, 2011). Frijters et al. (2008) and Schuitema, Veugelers, Rijlaarsdam and ten Dam (2009) empirically evaluated the effects of dialogic interventions on the value-loaded critical thinking capacities of secondary school students, finding promising results. However, these studies do not provide insight into the role of the teacher during classroom dialogues.

In the current exploratory study, we therefore investigated what strategies teachers use to promote value-loaded critical thinking. In doing so, we paid special attention to transfer-oriented teaching strategies because it has been suggested that students can find it hard to recognize classroom dialogue as a learning opportunity (Reznitskaya et al., 2012). Students therefore need help to become aware of the learning gains that classroom dialogue can afford them when they need to critically reason about moral and societal issues (Reznitskaya et al., 2012; Veugelers, 2011).

### 1.1. Value-loaded critical thinking

Davies and Barnett (2015) described critical thinking as a three-dimensional competence: the traditional description of critical thinking corresponds to the cognitive dimension. The second dimension is metacognitive: critical thinking entails self-reflection, self-critique, and higher order thinking skills. The third dimension concerns ethics, morality, and values: critical thinking is inherently normative, focused on making moral value judgments about which actions are worth pursuing and why. In the current study, we use a definition of critical thinking that contains all three dimensions of critical thinking, with a focus on the third dimension, value-loaded critical thinking (Frijters et al., 2008).

We define value-loaded critical thinking as logically consistent and self-reflective reasoning focused on deciding what the right thing is to believe or do is (Frijters et al., 2008). Accordingly, we maintain a valuable aspect of the traditional, cognitive description of critical thinking, namely that good quality reasoning is logically consistent argumentation, containing both supportive reasons and counterarguments. We also account for the metacognitive dimension by adding critical self-reflection on the process and outcomes of outcomes of reasoning. The ethical dimension is addressed by emphasizing that critical thinking is an inherently normative competence focused on making moral value judgments about what is worth pursuing and why (Davies & Barnett, 2015; Frijters et al., 2008; Schuitema et al., 2009). In value-loaded critical thinking, teachers take an indirect approach to teaching values: the aim is not to transmit values, but rather to encourage students to think about their own values, form value judgments, and reflect on their own reasoning and actions (Solomon, Watson & Battistich, 2001).

Moral values are ideas about a good life and how people should live together (Veugelers, 2000). These are distinguished from personal preferences, desires, social norms, and non-moral values, such as economic, aesthetic, or practical values. Moral values are not merely preferences, but have to do with the kind of people we want to be and the kind of society we want to build (Parker & Hess, 2001). Moral values also require people to reflect on their desirability and rightness; we prefer moral values because we consider those to be (morally) right (Cam, 2016). Consequently, moral values transcend a specific context; they are enduring tendencies in beliefs about whether a certain type of behavior is right or wrong (Veugelers, 2000), which can often be related to considerations of welfare, rights, justice, freedom, equality, and solidarity (Veugelers, Stolk & Bron, 2015).

### 1.2. Teaching value-loaded critical thinking in classroom dialogues

Both theoretical and empirical research indicates that classroom dialogue is a fruitful way to teach critical reasoning about moral values (Burbules & Berk, 1999; Ten Dam & Volman, 2004; Veugelers, 2000). Researchers have argued that dialogues actively involve students in collaborative meaning-making (Ten Dam & Volman, 2004) and promote elaboration and reasoning (Howe, Hennessy, Mercer, Vrikki & Wheatley, 2019; Wilkinson et al., 2017). Moreover, participants in dialogues must take others' perspectives into account (Kim & Wilkinson, 2019; Ten Dam & Volman, 2004). Dialogue is often contrasted with recitation, in which students must provide correct answers to teachers' questions; in contrast, in a dialogue, a teacher facilitates a collaborative inquiry into an open and contestable question, sharing moral and epistemological authority with students (Lipman, Sharp & Oscanyan, 1980; Reznitskaya & Gregory, 2013). Our definition of dialogic teaching is closely related to Reznitskaya's conception of dialogic teaching as inquiry dialogue (Kim & Wilkinson, 2019; Reznitskaya & Gregory, 2013; Reznitskaya et al., 2012).

Dialogues can promote moral reasoning when moral values are explicitly discussed (Aalberts, Koster & Boschhuizen, 2012; Ilten-Gee & Nucci, 2019; Schuitema, van Boxel, Veugelers & Ten Dam, 2011) and when such discussion is done in relation to dilemmas or concrete examples (Nucci & Turiel, 2009; Rescher, 2014; Schuitema et al., 2008). The latter is important because even if a majority of people agree on the importance of moral values, such as justice and equality, on an abstract level, they may not agree on the right course of action in a specific situation (Rescher, 2014). Dilemmas and concrete, realistic examples invoke students' moral judgments, especially when they are asked ought- and should-questions about them, rather than factual questions (Cam, 2016; Kohlmeier & Saye, 2019). Several authors have argued that teachers play a crucial role in realizing these characteristics because it requires preparation and scaffolding to make sure that discussions are about moral values (Aalberts et al., 2012; Ilten-Gee & Nucci, 2019; Schuitema et al., 2011). Additionally, teachers can model critical moral reasoning and facilitate classroom discussions in which moral values are thoroughly examined (Bleazby, 2020; Sprod, 2001). To do this, teachers must have philosophical knowledge about moral issues, moral concepts, competing perspectives, arguments, and common criticisms associated with these dilemmas (Sprod, 2001; Bleazby, 2020). However, there are few empirical studies that provide insight into the teaching strategies that can be employed to promote critical reasoning about moral values.

On the contrast, concerning the cognitive dimension, there are a number of studies on how teachers can promote reasoning and argumentation in classroom dialogue (Billings & Fitzgerald, 2002; Davies, Kiemer & Meisel, 2017; Kovalainen, Kumpulainen & Vasama, 2001; van der Veen, van der Wilt, van Kruistum, van Oers & Michaels, 2017; Webb, 2009). Reznitskaya and Wilkinson (2017) have presented a tried and tested framework for teachers to facilitate critical reasoning. They identify four criteria for good argumentation in dialogue: diversity of perspectives, clarity, acceptability of reasons and evidence, and logical validity; they also describe a set of facilitation practices to help teachers decide when and how to intervene during discussions (Reznitskaya & Wilkinson, 2017). Furthermore, Oyler (2019) presents seven facilitation moves and three pedagogical principles that can improve argumentation quality. The facilitation moves Oyler (2019) mentions are paraphrasing, distilling, identifying or completing a warrant, locating, naming moves, probing reasoning, and redirecting. Oyler's (2019) pedagogical principles consist of tracking the inquiry, working towards reasonable judgments, and letting the inquiry be student driven.

### 1.3. Transfer-oriented teaching

The aim of teaching value-loaded critical thinking is for students to be able to apply it in various contexts, not only in the context in which they were taught but also in everyday life. Thus, we aim for transfer of value-loaded critical thinking. Transfer is a person's ability to apply learning acquisitions in a variety of new situations (Peters et al., 2015; Van Oers, 1998). Since transfer usually does not happen automatically, it is important to consciously apply transfer-oriented teaching strategies that increase the likelihood of transfer (Bransford & Schwartz, 1999). In our research, we adopt three design principles for transfer-oriented teaching that Peters et al. (2015) describe: transfer can be promoted 1) by making the learning content more meaningful to students, 2) by creating intercontextuality, and 3) through metacognitive reflection on the learning process and outcomes. However, these design principles were not specifically developed for dialogic teaching, nor in relation to moral values.

The first design principle, making learning content more meaningful to students, fosters transfer because it increases students' active involvement and participation in learning activities; this makes them aware of the relevance of value-loaded critical thinking in everyday life (Engle, 2006; Halpern, 1998; Peters et al., 2015; Wiig, Silseth & Erstad, 2018). Teachers can make their lessons more meaningful by building on students' preexisting knowledge (Peters et al., 2015), making explicit connections to real-life situations (Halpern, 1998; Wardekker, Boersma, Ten Dam & Volman, 2011), inviting students to consider the learning content in light of personal goals and questions, and giving them opportunities to make their own choices in the curriculum (Peters et al., 2015). We expect that most philosophical classroom discussions are meaningful, especially when students have a shared responsibility over the content and process of classroom dialogue.

The second design principle is creating intercontextuality. This refers to teachers making explicit connections between two or more learning contexts (Engle, 2006; Lobato, 2006; Wiig et al., 2018). In our case, students learn to recognize contexts in which value-loaded critical thinking is relevant and subsequently apply what they have learned to a new situation (Van Oers, 1998). Teachers can create intercontextuality through recontextualization, comparison, or generalization. Recontextualization happens when learners apply what they have learned in a different context (Peters et al., 2015; Van Oers, 1998). Comparison is recontextualization combined with explicit exploration of similarities and differences between the contexts (Engle, 2006). Generalizations tend to be more abstract notions, such as moral values, reasoning principles and other philosophical concepts. By investigating generalizations in multiple contexts, students become aware that general concepts are applicable in various contexts and can have a slightly different meaning in each situation (Rescher, 2014; Rondhuis, 2005; Van Oers, 1998; Veugelers, 2011). In a study on how teachers facilitate discussion and how students reason about controversial topics, Kohlmeier and Saye (2019) have argued that it is important to analyze analogous issues when discussing democratic values with students because such discussion can lead to an enriched understanding of those values.

We expect the third design principle to be particularly relevant to dialogic education because it can be hard for students to discriminate between principles of reasoning they learned in dialogues and more superficial elements of those dialogues (Bransford & Schwartz, 1999; Reznitskaya et al., 2012). Metacognitive reflection is the deliberate monitoring and evaluation of learning processes and outcomes; through metacognitive reflection, students become aware of how and what they are learning, which helps them to select, apply, or transform learned knowledge and skills in future situations (Elshout-Mohr, Van Hout-Wolters & Broekkamp, 1999). Pedagogical resources provide ample examples of teaching strategies to promote metacognitive reflection (Gregory, 2008). To reflect on the process of learning, teachers can address strategic and social dimensions of the dialogic inquiry (e.g., Who is contributing? Are we making connections to the contributions of others? How do we proceed to answer the main question?). To reflect on learning outcomes, teachers could ask students to explain what they learned or to evaluate the progress made in the dialogic inquiry. It is widely recognized that metacognitive reflection is important, but metacognitive reflection is a learning episode that is often left incomplete because it may come late in the day, when both teachers and students often lack motivation to go over what went well and what did not (Elshout-Mohr et al., 1999).

The available design principles for transfer-oriented teaching seem relevant for and applicable to dialogic teaching. However, it is unclear whether and how teachers actually implement transfer-oriented teaching strategies during philosophy classroom dialogues and in what ways they can promote the transfer of value-loaded critical thinking.

## 2. The present study

The main goal of the present study is to contribute insight into how teachers can approach teaching the ethical dimension of critical thinking. Previous studies have focused on traditional notions of critical thinking and how dialogic teaching and teacher facilitation during dialogues contributes to students' critical reasoning capacities. However, these studies do not provide insight into value-loaded

critical thinking. The purpose of the present paper is to identify teaching strategies that can be used to promote value-loaded critical thinking in a transfer-oriented way. We expect that value-loaded critical thinking can be found in Dutch secondary philosophy classes since classroom dialogue is a prevalent pedagogical approach in philosophy education (Marsman, 2010; Oosthoek, 2007). Furthermore, ethics, logic and critical thinking are core elements of the curriculum (Wessels, 2007), and philosophy teachers are academically trained philosophers, schooled in ethics, logic, and the facilitation of classroom dialogues (Marsman, 2010; Oosthoek, 2007). To investigate this, we asked five experienced teachers to conduct three classroom dialogues in their 10th grade philosophy classes.

Our research questions were:

- 1 What are the teaching strategies used to promote value-loaded critical thinking in philosophy classroom dialogues?
- 2 What are the teaching strategies used to promote value-loaded critical thinking in a transfer-oriented way?

### 3. Methods

#### 3.1. Design

We conducted an exploratory multiple case study using classroom observations and recordings of 15 philosophy classroom dialogues. In addition, we used semi structured interviews with the five participating teachers to obtain better insight into the objectives and intentions of the teachers during classroom discussions. We employed a largely qualitative design and used two types of content analysis. First, we selected the discussions with a significant number of value-loaded contributions for further analysis; we then used an a priori codification scheme based on our definition of value-loaded critical thinking as described in Section 1.1 (Miles & Huberman, 1994). Similarly, for research question 2, we based our codification scheme on the theoretical framework in Section 1.3 on transfer-oriented teaching strategies. However, for research question 1, we could not build on an existing framework of teaching strategies to promote reasoning about moral values, so we took a more bottom-up approach in our analysis.

#### 3.2. Participants

The participants are five secondary school philosophy teachers who responded to a posting for the Association for Philosophy Teachers in Secondary Education; this constituted convenience sampling. We selected the first five teachers who responded to the call with teaching qualifications in philosophy, over five years of experience, and a 10th grade philosophy class. The selected teachers (Anna, Ben, Carel, Dirk, and Ethan) all obtained an MA in Philosophy and indicated that they regularly facilitate classroom dialogue. The teachers participated with their 10th grade philosophy classes in the preuniversity track; for the students involved, this was the first year they took philosophy classes. The ethics committee approved our research proposal before we started recruiting. All teachers signed informed consent, and all parents were informed about the study.

#### 3.3. Procedure

We asked the philosophy teachers to conduct classroom dialogues for a duration of at least 10 min about three different topics: 1) global justice, 2) identity, and 3) knowledge. We selected topics from different branches of philosophy (respectively social philosophy, philosophical anthropology, and epistemology), to gain insight into value-loaded critical reasoning across a range of philosophical themes. We asked them to do this in the way they would normally prepare and conduct classroom dialogues. This was the only instruction; the teachers chose their own main question or example(s) to discuss and decided how to embed the dialogues within the curriculum. Table 1 lists the main questions for each classroom dialogue.

The 15 classroom dialogues were video-recorded and transcribed to increase the trustworthiness of this study. The transcripts were sent to the teachers for a member check; none of the participants requested changes. For ethical reasons, we only filmed the teacher. To gather additional information on students' participation and to select fragments that were later used as cues in the interviews with the teachers, the first author was present in the classroom. She observed the number of students that contributed to the dialog and which fragments of the dialogue contained value-loaded critical thinking or transfer-oriented teaching strategies. Table 2 shows descriptive data about the participation of students and teachers during dialogues; these are based on our observations and analysis of transcripts.

After the classroom observations, the first author conducted a semi structured interview with each teacher to gain insight into their

**Table 1**

Central question or discussion statement of the classroom discussion.

Teacher	Discussion 1: Global justice	Discussion 2: Identity	Discussion 3: Knowledge
Anna (f)	Is it morally right when rich countries give developmental aid?	To what extent are you a cosmopolitan?	Can we ever know what it is like to live in a developing country?
Ben (m)	National borders are not morally justified.	Can teenagers be authentic?	Can you ever truly know yourself?
Carel (m)	What is justice?	How can you be yourself?	What is meaningful knowledge?
Dirk (m)	What kind of freedom is required in a democratic society?	What does it mean to be authentic?	Can you truly know yourself?
Ethan (m)	How can we make the world more just?	How do you develop your own identity?	What can we know with certainty?

**Table 2**  
Background information about the observed discussion: participation and contribution.

Discussion	Duration (in mins)	Total number of turns	Number of teacher turns (% of total)	Number student turns (% of total)	Total number of words	Number of words teacher (% of total)	Number of words student (% of total)	Number of students in class	Number of students speaking (% of total)
<b>Anna</b>									
1	14 min	79	41 (52%)	38 (48%)	2239	1256 (56%)	983 (44%)	27	10 (37%)
2	20 min	133	70 (53%)	63 (47%)	3277	1763 (54%)	1514 (46%)	26	9 (35%)
3	7 min	78	43 (55%)	35 (45%)	883	609 (69%)	274 (31%)	22	6 (27%)
<b>Ben</b>									
1	21 min	112	58 (52%)	54 (48%)	2757	1337 (48%)	1420 (52%)	20	9 (45%)
2	14 min	102	51 (50%)	51 (50%)	2183	1050 (48%)	1133 (52%)	22	8 (36%)
3	9 min	75	34 (48%)	41 (52%)	1489	564 (38%)	925 (62%)	22	9 (41%)
<b>Carel</b>									
1	40 min	242	90 (37%)	152 (63%)	5882	2472 (42%)	3410 (58%)	20	12 (60%)
2	38 min	216	83 (38%)	133 (62%)	4246	1413 (33%)	2833 (67%)	20	10 (50%)
3	21 min	140	57 (41%)	83 (59%)	3001	636 (21%)	2365 (79%)	18	11 (61%)
<b>Dirk</b>									
1	21 min	109	53 (49%)	56 (51%)	3746	2717 (73%)	1029 (27%)	15	8 (53%)
2	20 min	62	32 (52%)	30 (48%)	3570	2450 (69%)	1120 (31%)	10	7 (70%)
3	12 min	44	23 (52%)	21 (48%)	1958	1394 (71%)	564 (29%)	8	6 (75%)
<b>Ethan</b>									
1	25 min	206	93 (45%)	113 (55%)	3788	2173 (57%)	1615 (43%)	16	12 (75%)
2	25 min	181	88 (49%)	93 (51%)	3338	1829 (55%)	1509 (45%)	13	11 (85%)
3	32 min	253	114 (45%)	139 (55%)	4957	2745 (55%)	2212 (45%)	11	10 (91%)
<b>Mean</b>	<b>20 min</b>	<b>135</b>	<b>62 (48%)</b>	<b>73 (52%)</b>	<b>3009</b>	<b>1627 (53%)</b>	<b>1527 (47%)</b>	<b>18</b>	<b>9 (56%)</b>
<b>SD</b>	<b>11,2</b>	<b>68,1</b>	<b>26,6 (5,6)</b>	<b>42,9 (5,5)</b>	<b>1531,6</b>	<b>755,5 (14,9)</b>	<b>852,2 (14,9)</b>	<b>5,7</b>	<b>1,9 (19,8)</b>

intentions and objectives during the dialogues. Each interview consisted of two parts. First, we asked the teachers about their take on philosophy classroom dialogue: what is their aim and how do they see their role as facilitator? Second, we watched the recordings of three or four fragments that the first author identified as value-loaded or value-loaded and transfer-oriented, and asked what the teacher was doing in the fragments, why the teacher was doing this, and whether this had the desired effect (stimulated recall interview). Transcripts of the interviews were sent to the teachers for a member check; none of the participants requested changes. We used the interview transcripts to verify our interpretation of the teaching strategies we found in our analyses for research questions 1 and 2.

### 3.4. Analyses of the philosophy classroom dialogues

We analyzed the transcripts of the 15 recorded classroom dialogues for each research question. In the first phase, we looked at the number of value-loaded contributions in dialogues using a codification scheme based on our definition of value-loaded critical thinking. In the second phase, we took an inductive approach to identifying teaching strategies that promote value-loaded critical thinking (research question 1). In the third phase, we used a codification scheme based on our theoretical framework to analyze

**Table 3**  
Codification scheme for value-loaded contributions.

Code	Description	Examples
<b>Value-loaded contribution</b>	The speaker...	
	... refers to a moral value,	Student: Everyone is treated equally in case of a lottery.
	... expresses a moral judgment,	Student: It is not fair that people aren't free to choose where they want to live and it is not fair that we live here where life is good. Teacher: What do you think is the right thing to do?
	... asks for a value-judgment,	Teacher: You (S1) say that it is a good thing to give money to people in need, but it shouldn't be obligatory. Does that mean that it doesn't matter if you don't do it?
... reasons about moral values of value-judgments	Student 1: You can't blame those who don't. It would be kind, but you are not responsible for others. One should be free to choose. Student 2: Well, I'm not sure... I think you're just lucky to be born in a rich country. And you should share some of that luck with people who don't have that. Student: Refugees should probably have the moral right to come here, but the question remains what would happen if we would allow everyone to live here... Wouldn't that lead to chaos? Teacher: Why do you think discrimination is always unjust, even positive discrimination?	
<b>Not value-loaded</b>	None of the above	

transfer-oriented teaching strategies in the observed dialogues (research question 2).

#### 3.4.1. Value-loaded contributions in the dialogues

First, we coded the 15 transcripts with the *Codification scheme for value-loaded contributions* (Table 3) to determine which contributions are value-loaded and which were not. We used turn shifts to delineate the unit of codification. We defined a turn as everything a speaker said until another speaker started talking. We coded all the contributions to the dialogues, both from the teacher and from the students, and each contribution was considered either “value-loaded” or “not value-loaded.” Table 3 shows the characteristics of contributions that were coded as value-loaded: all contributions in which the speaker refers to values or value judgments count as value-loaded. To determine inter-rater reliability, 6 of the 15 transcripts (Anna 2, Ben 3, Carel 2, Dirk 1, Ethan 1 and 3) were coded by two independent raters. Analyses showed that the Codification scheme for value-loaded contributions could be used to codify reliably, with a Cohen’s Kappa of 0.789 and an interrater agreement percentage of 93% (Landis & Koch, 1977).

#### 3.4.2. Teaching strategies for value-loaded critical thinking

To answer research question 1, we selected dialogues that contained a substantial number of value-loaded contributions (more than 10% of the total number of turns). Subsequently, we used an inductive and grounded approach to identify themes in the data (Miles & Huberman, 1994); we examined the value-loaded contributions of students and teachers and asked ourselves, “What is the teacher doing in (or with) this contribution?” We went through multiple cycles of identifying teaching strategies, verifying our interpretation with the interviews, revising our list of teaching strategies (by identifying similar and overlapping codes and cross-checking with findings from the literature), and analyzing the data again with a revised list. This resulted in an unstructured list of 15 teaching strategies. With this list, we coded the dialogues without many value-loaded contributions to check whether the identified teaching strategies were indeed related to value-loaded critical thinking (looking for negative evidence, Miles & Huberman, 1994). Lastly, we looked for ways to categorize teaching strategies in a meaningful way.

To enhance credibility and consistency, the research team repeatedly checked the codification scheme. The first author coded the transcripts, and then we collaboratively discussed coded transcripts, lists of codes, and code descriptions. We did this several times, within and across cases, checking whether the codes were internally homogenous and externally heterogenous. After we established our codification scheme, we used the interview transcripts to verify our interpretation of the teaching strategies, as a form of triangulation (Creswell, 2008).

#### 3.4.3. Teaching strategies for transfer of value-loaded critical thinking

To answer research question 2, about transfer-oriented teaching strategies for value-loaded critical thinking, we analyzed the same selection of transcripts as for research question 1. We first analyzed the transcripts of classroom discussions, using the *Codification scheme for transfer-oriented teaching strategies* in Table 4. Next, we used the same codification scheme as we went through our observation notes and watched the video-recordings of the lessons, in order to identify transfer-oriented teaching strategies in other parts of the lesson. This additional step is a relevant, because transfer-oriented teaching strategies are often found before or after the dialogues. We used the interview transcripts to triangulate our interpretation of the teaching strategies.

## 4. Results

### 4.1. Value-loaded contributions

We first analyzed the number of value-loaded contributions in each dialogue, the results can be found in Table 5. We did not find value-loaded contributions in all philosophy classroom dialogues. The results show that, on average, dialogues about topic 1 (global justice) contained the highest percentages of value-loaded contributions, and dialogues about topic 3 (knowledge) the fewest. This suggests that the topic of a dialog influences the number of value-loaded contributions. This might be related to the branches of philosophy these topics belong to: more practical topics, such as global justice, seem to invite more discussion of moral values than topics from more theoretical branches such as epistemology (knowledge). Moreover, the results for topic 2 (identity) show quite some variation between teachers, which indicates that teaching styles might play a role as well. It should be noted that these case study findings cannot be used to draw conclusions about the prevalence of value-loaded critical thinking in Dutch secondary school philosophy classes, since we only observed a very limited number of dialogues.

Table 6 records a dialogue fragment containing value-loaded contributions on global justice (topic 1). The dialog was part of a lesson series on political philosophy, and in this dialogue, teacher Ben chose to investigate the statement “national borders cannot be morally justified.” After a short introduction, the students discussed the statement in small groups for 10 min, and then Ben initiated a whole-class dialogue. Based on the descriptive data found in Tables 1 and 2, we conclude that the whole-class interaction showed characteristics of dialogic teaching: for one, the central statement is contestable. In addition, we consider the dialogue open to multiple perspectives, since nine out of 20 students said something, and Ben explicitly invited a different perspective in line 7. Third, the students talked about as much as the teacher (1420 words spoken by the students compared to 1337 words from the teacher), which indicates that the teacher was not overly dominant. After the dialogue, Ben explained the position of philosopher Joseph Carens, from

**Table 4**  
Codification scheme for transfer-oriented teaching strategies.

Transfer dimension	Teaching strategy	Description
Making the learning content more meaningful	Preexisting knowledge	Connecting the learning content to previously learned facts, philosophical ideas, values, reasoning strategies, et cetera
	Personal experiences	Connecting the learning content to personal experiences of the participants
	Realistic examples	Exploring the learning content in the context of realistic examples or real-life situations
	Students' beliefs, questions, and goals	Connecting the learning content to students' personal beliefs, questions, or goals
Create intercontextuality	Choices in curriculum	Giving students a choice about the learning content or activity
	Recontextualization	Introducing a new context in which the discussed moral values, arguments or judgments are explored
	Comparison	Discussing similarities and differences regarding moral values, arguments, and judgments in various contexts
Metacognitive reflection	Generalization	Transcending the context by means of a generalization, such as a value, principle, abstract concept, theory, or reasoning strategy
	...on learning process	The deliberate evaluation of the learning process: social and strategic aspects of value-loaded critical thinking.
	...on learning outcomes	The deliberate evaluation of the learning outcomes (regarding value-loaded critical thinking)

**Table 5**  
Amount and percentage of value-loaded contributions in the observed dialogues (number of value-loaded turns / total number of turns, percentage).

	1. Global justice	2. Identity	3. Knowledge
Anna	<b>37/79 (47%)*</b>	<b>55/133 (41%)</b>	0/78 (0%)
Ben	<b>49/112 (44%)</b>	5/102 (5%)	0/75 (0%)
Carel	<b>105/242 (43%)</b>	<b>37/216 (17%)</b>	10/140 (7%)
Dirk	<b>17/44 (39%)</b>	4/109 (4%)	0/62 (0%)
Ethan	<b>112/206 (54%)</b>	9/181 (5%)	14/253 (6%)

\* The results of the lessons selected for further analysis are boldfaced.

whom he had derived the central statement. The fragment in [Table 6](#) is from the middle of the dialogue; some students had already explained why they disagree with the central discussion statement. Examples of value-loaded contributions in [Table 6](#) are the main discussion statement, value judgments of the participants (lines 3 & 14), references to justice and quality of life (statement and line 4), and reasoning about moral values (lines 1, 13, 37, 38 & 39).<sup>1</sup>

#### 4.2. Teaching strategies for value-loaded critical thinking

This section addresses research question 1 about strategies that teachers used to promote value-loaded critical thinking. We organized the identified teaching strategies into three categories: teaching strategies for 1) *addressing* values, 2) *applying* values, and 3) *arguing* about values. These categories emerged from the data but were consistent with the characteristics of dialogues that promote moral reasoning described in [Section 1.2](#). The first category, addressing moral values, contains teaching strategies to promote the explicit discussion of moral values and value-judgments in classroom dialogue. The second category consists of teaching strategies that were used to apply moral values to specific situations or move from an abstract discussion of values to a more concrete example. The third category (arguing) contains teaching strategies that promote critical inquiry about moral values. Some of these strategies are variations of teacher moves to promote the cognitive dimension of critical thinking, as described by [Oyler \(2019\)](#) and [Reznitskaya and Wilkinson \(2017\)](#), but we also found strategies that specifically referenced arguing about moral values or value judgments. [Tables 7, 8, and 9](#) display teaching strategies and examples that were identified from the observed dialogues.

##### 4.2.1. Teaching strategies for addressing moral values

[Table 7](#) describes observed teaching strategies to address values. The first strategy, choose a value-loaded topic, was found in all but one of the value-loaded dialogues. When teachers used this strategy, they ensured that the inquiry was (at least partly) about values. The second teaching strategy, value-loaded follow-up questions, was observed in all value-loaded dialogues. The teachers asked students what they thought to be desirable or fair, or what should be the case and why. Ben does so in line 13 of his lesson ([Table 6](#)): "Why do you think it is not right that there are borders?" Thirdly, in multiple lessons, the teachers redirected the inquiry from facts or practicalities to a value-loaded discussion. In line 37 of Ben's lesson ([Table 6](#)), Ben asks a student to explain why people in the Netherlands are entitled to their prosperity while others are not, instead of asking the student to substantiate her claim about asylum seekers with facts. The fourth teaching strategy, highlight values, was observed in the lessons of several teachers. In [Table 7](#), Carel

<sup>1</sup> The teaching strategies for value-loaded critical thinking will be discussed in §4.2 and the transfer-oriented teaching strategies in §4.3.

**Table 6**

Fragment from Ben's lesson on justice about the statement: "National borders cannot be morally justified" (turn number, speaker, contribution, value-loaded or not, teaching strategy).

	Speaker	Contribution	Value-loaded (vl)	Teaching strategy (no.)
1.	Aïcha:	Well, someone who agrees with the statement could say something like: 'yeah, but it isn't fair that people aren't free to decide where they're going to live, and that it isn't fair that we live here where life's good.' But, suppose all these people come to here, then we would have overpopulation, and that's eventually... Then it'll be the same as in Asia with many people living in slums and things like that. People will all go to the same places, but in the end, they would still be poor. So that doesn't help much.	vl	
2.	Teacher:	Okay...		
3.	Aïcha:	Look, everything would get worse without borders. I know that sounds harsh, but in that case, we could better make sure that some people live a good life, instead of no one at all.	vl	
4.	Teacher:	Okay, so you try to include a kind of counter-argument in your argumentation. You say: 'yes, it is only coincidence that I was born here, I am aware of that, but if we abolish national borders, then it is bad for everybody's quality of life.'	vl	Highlight values (4)
5.	Aïcha:	Yes.	vl	
6.	Teacher:	So, that's my argument, despite the coincidence of... [...]		
7.	Teacher:	All right, people who disagree with the statement, who are they? There were some... Iris?		Invite a different perspective
8.	Iris:	I don't think people would come in large numbers, for instance from Malawi to the Netherlands.		
9.	Teacher:	Aha!		
10.	Iris:	I think that people also want to stay in their own culture, that they just want to live together, and that if they live in a culture in which they... maybe don't live in houses or something... And then they move here... No, I don't think they would all want that. Probably some people will move to the Netherlands, but I don't think everyone, en masse, will go to richer areas like here.		
11.	Teacher:	Okay, so you say: 'that first argument is a bit dramatic, ...'		
12.	Iris:	Right.		
13.	Teacher:	... As if people don't care for the place where they were born, grew up, where they have friends, and where their children live, where, in Malawian terms, their ancestors are buried. They can also be clearly religious motives, which have to do with where your birthplace lies. So, it won't be that bad. Ehm, do you think it's right that there is land... Why do you think, apparently you think it's a little over-dramatized, but why don't you think it's right that those borders exist? You seem to suggest that as well.	vl	Support reasoning (10) Value-loaded question (2)
14.	Iris:	Yes, I... I don't think borders are bad, but that one has to ask permission to go to another country, that's... Well, I think everyone should be able to go to other countries if they want to. You cannot choose where you were born and raised, I think.	vl	
15.	Teacher:	But that means you think borders are bad.	vl	
16.	Iris:	Well, I think...		
17.	Teacher:	Suppose I forbid you... Are you from Capelle or Rotterdam?		
18.	Iris:	Rotterdam		
19.	Teacher:	From Rotterdam, okay. Who is from Nieuwerkerk? Let's try again. Yes! Ravi, you are obviously a stranger here. We, people from Rotterdam, or rather you, people from Rotterdam, I'm from very far away, allow Ravi to be among you. The citizens of Nieuwerkerk want to live a good life as well, so that's why Ravi is here. Imagine if Ravi should ask permission: 'Dear Mayor Aboutaleb, I would like to go to Rotterdam. May I please?' And that mayor Aboutaleb could decide: 'Ravi from Nieuwerkerk, I'm not sure if that's a good idea, I'll decline his request.' Wouldn't that be weird? That you need permission to go to school here. Why does someone from Malawi have to ask permission to go here?	vl	Propose dilemma (6), personally meaningful (§4.3), create intercontextuality (§4.3)
20.	Fatima:	That's a very different kind of...		
21.	Teacher:	A different kind of what? Please, explain.		
22.	Fatima:	Well, you can't really compare the situation with Rotterdam and Nieuwerkerk with the situation in the Netherlands and Malawi.		
23.	Teacher:	Because?		
24.	Ravi:	That's a completely different culture!		
25.	Fatima:	Yes, and they are living in a totally different way than... Their norms and values are different, their ideals, it's all difficult to compare with ours, so...	vl	
26.	Teacher:	Wait a minute, we are talking about other cultures, but ehm..., Fatima, is the Netherlands a people who all come from the same culture? [...]	vl	
27.	Fatima:	No, but look, aren't we all thinking in a western way? It is not immediately...	vl	
28.	Teacher:	Yes? So, what if... Suppose I also think in a western way, but I am living in Malawi. I want to join you thinking in a western way.	vl	Counterexample (8)
29.	Fatima:	Yes, but... It's just that there has to be an intermediary, who denies access to the bad people.	vl	

(continued on next page)

**Table 6** (continued)

Speaker	Contribution	Value-loaded (vl)	Teaching strategy (no.)
30.	Teacher: ...Denies the bad people! Hahaha! [loud laughter] It's a good thing you are saying that. Okay, Natalie.		
31.	Natalie: Well, I think that if someone from Malawi come to the Netherlands, he or she will come for different reasons then when Ravi comes to Rotterdam from Nieuwerkerk. Because, someone from Malawi probably isn't as prosperous in his own country. And I think, he would like to go to the Netherlands to become as prosperous as we are in the Netherlands.		
32.	Teacher: Yes.		
33.	Natalie: And it's not that Ravi is having such a terrible life in Nieuwerkerk that he is here...		
34.	<laughter>		
35.	Teacher: And yet, he's here, isn't he?		
36.	Natalie: ... because life's so much better here.		
37.	Teacher: So, you say: 'yes, the motive is prosperity.' That means that you have to argue why we are entitled to this prosperity, and why the people in Malawi are not.	vl	Redirect to values (3)
38.	Natalie: Yes, that's difficult, because for a large part, that's just coincidence. It just happens to be like this.	vl	
39.	Teacher: Exactly, there is actually no argument for that. It is similar as to winning the lottery 'that's just a coincidence.'	vl	

**Table 7**

Teaching strategies to explicitly address values and invoke value judgments (teaching strategy, description, example).

No.	Teaching strategy	Description	Example from an observed lesson
1	Value-loaded topic	Choose a value-loaded central question or statement for the classroom dialogue	Ethan (1*): How do we make the world more just? Carel (1): What is justice?
2	Value-loaded question	Ask students a value-loaded follow-up question to invoke or substantiate a value judgment (often containing ought, should, or a value)	Carel (3): You say that you don't care who the minister of education is, but do you think you should care about that?
3	Redirect to values	Reformulate factual or practical statements into a value-loaded question	Student: I don't agree that there is a housing shortage, there are plenty of houses to buy. Carel (1): Why do you think housing shortage would justify squatting and similar things, would that make it less objectionable?
4	Highlight values	Highlight moral values when paraphrasing a student's contribution	Student: How else would we solve that 70% of the people in some fields are male and only 30% are female? You can't solve that, but isn't that unfair as well? Carel (1): To create equality, we should sometimes violate the principle of equality, is what you are suggesting...?

\* theme of the lesson: 1 = global justice, 2 = identity, 3 = knowledge.

**Table 8**

Teaching strategies to apply values in a realistic context (teaching strategy, description, example).

No.	Teaching strategy	Description	Example from observed lesson
5	Evaluate an example	Ask students to evaluate a concrete and realistic situation: is this right/fair/just/...?	Carel (1*): Five people living in a squat were evicted. Six months later the house hasn't been inhabited nor is the owner using it: it is empty. What do you think about this, is this just or unjust?
6	Propose a dilemma	Propose a moral dilemma and ask the students what they would do in this case	Anna (2): We have been talking about being a citizen of the world and being neighbours. What would you rather do, donate to your local food bank or to UNICEF?
7	Students' own actions	Ask students about their own actions and motivations	Anna (2): That's an interesting point you make, that it can be hard to live up to one's own standards about what's right. For instance, do you donate to charities?
8	Counterexample	Give an example that challenges previous contributions	Ethan (1): Let's consider that I am a 13-year-old boy in Africa, the stereotype you are all familiar with. I have a cousin who's studying in London. So, I know about his life, but for me there's no money to study abroad, I'll be living in my African village for the rest of my life. I should be happy if I'll turn 50... What's my perspective in life? How about treating everyone like you want to be treated and respect each other's values, does that apply to me as well?

\* theme of the lesson: 1 = global justice, 2 = identity, 3 = knowledge.

paraphrases the contribution of a student in value-loaded terms: he explicitly refers to equality, building on the idea that the current situation is unfair. By highlighting this, Carel diverts attention away from the percentages mentioned by the student and instead invites others to respond to the value-loaded question, "Should we sometimes violate the principle of equality to restore existing inequalities?"

**Table 9**  
Teaching strategies to promote arguing about values (teaching strategy, description, example).

No.	Teaching Strategy	Description	Example from observed lesson
9	Summarize values	Summarize the discussed values, value judgments, perspectives, and arguments	Carel (1*): Let's summarize. On the one hand we have the idea that you can do whatever you want with your property. And then the criticism to that is, that a house has a purpose, it is meant to be lived in. And if that isn't the case, then something is wrong. Whether that justifies squatting is open to debate.
10	Support a student's reasoning	Support a student's reasoning (often with a minority opinion)	Student: Well, I don't know, maybe it is a good idea to stop giving developmental aid, but it can also be a very bad decision... What if it all goes very wrong? Anna (1): Yes, we are talking about human lives after all. [...] It might be a dangerous experiment, is what you're saying?
11	Search for solutions	Ask for solutions to or improvements of undesirable situations	Ethan (1): Yes, but how do we achieve this? How do we get to the situation where the boy in Africa is in the same position over there as he would be when he was born here? Which step do we have to take? How do we get to a solution?
12	Define a value	Formulate a definition of the discussed moral values	Carel (1): So, he says that justice means that everyone is treated equally. You don't agree with him, what's your definition of justice?
13	Challenge relativism	Challenge students to overcome their relativistic stance	Ethan (1): Well, I'll be upfront with you, I am not satisfied with the answer 'that's different for everyone.' You can say that about anything. It's true, in part, but we should get beyond that, otherwise we could just as well stop living together, and say: 'your life differs so much from mine, that's it.' You all have something in common isn't it? Try to grasp what we share, regarding our conception of justice.
14	Explain a philosopher	Explain a relevant position from moral philosophy	Anna (2): Kant has said that when certain human rights are violated, or certain pain is inflicted upon people, that that's sensible everywhere. That's an aspect of globalization. We know about suffering in Ethiopia or violations of human rights, that affects us all, we are connected. But you suggest that this doesn't always feel that way, that we might feel more involved with some people than with others.
15	Teacher's value judgment	Express your own value judgment about the issue	Ben (1): I don't know if everything would collapse if we get rid of national borders... That's an empirical question. But I do feel sympathetic to what Rosa is saying. I mean we all have our reasons for why we live where we're living. It is much more fun in New York City, I could have moved there, but still I am living here.

\* theme of the lesson: 1 = global justice, 2 = identity, 3 = knowledge.

Line 4 of Table 6 shows another example: Ben does not repeat the expected consequences (it would be bad for everyone's quality of life), but explains how this student constructed her argument; he then paraphrases her rebuttal and her value judgment that an even more undesirable situation would arise without national borders.

#### 4.2.2. Teaching strategies for applying moral values

In all value-loaded dialogues, we identified teaching strategies for applying moral values. The vast majority of these applications were realistic (the examples actually exist or could have existed), and the descriptions contained enough information for students to recognize or envision the situation (details are given about time, place, actors, etc.). However, the teachers asked different types of questions about these applications; Table 8 shows the variations we found. In some dialogues, the students were asked to give a value judgment about a situation (Table 8, strategy 5: evaluate an example). For example, Carel prepared five examples about justice, such as the one in Table 8. In Ben's lesson (Table 6, line 19), we identified a more spontaneous application: Ben asked his students to evaluate if and why national borders differ from municipal borders with regard to their moral justification. In his interview, Ben explained that he did not prepare this beforehand. Anna proposed a dilemma about two types of philanthropy (Table 8, strategy 6: solve a dilemma) and asked a student about his own actions and motivations for them (Table 8, strategy 7). In her interview, Anna explained that she hesitated to press this student about his own actions in front of the whole class because this might make him feel unsafe. However, she felt it contributed to the discussion because the way he acts (not donating money to charities because he does not yet earn enough money) are exemplary for what most people do and stand in stark contrast with the position of the previously discussed moral philosopher.

In Ethan's lesson (as well as in the lessons of other teachers), we have identified another application of moral values: a counterexample (Table 8, strategy 8). Ethan challenged the students' consensus about how to make the world more just ("We have to treat everyone equally and respect each other's values") using a counterexample about an African boy. This illustrates the importance of applying moral values in realistic contexts; the example helped to further the inquiry beyond the apparent consensus and fostered a debate about responsibilities, limitations, and doing the right thing. Moreover, a counterexample can also bring a new perspective into the inquiry, which is an important aspect of critical inquiry, especially when it pertains to moral values (Schuitema, Radstake, van de Pol & Veugelers, 2018; Veugelers, 2000).

#### 4.2.3. Teaching strategies for arguing about moral values

In the dialogues, we recognized many variations of teaching strategies to promote critical thinking as described by Reznitskaya and Wilkinson (2017) and Oylar (2019): the teachers probed students' reasoning, made the reasoning process explicit, kept the inquiry on track towards answering the main question, and invited criticism, counterarguments, and additional perspectives (see Ben in Table 6, line 7). In all value-loaded inquiries, the teachers used such strategies to promote critical reasoning about moral values. Since these

strategies are described in detail in the cited literature, we focus on teaching strategies that specifically target reasoning about moral values.

The first strategy in Table 9, summarize values (strategy 9), is a value-loaded adaptation of a known teaching strategy (summarize to track the inquiry) that was used by all teachers in their value-loaded dialogues. In this example, Carel summarized and thus emphasized value-loaded arguments rather than other contributions to the dialogue. The next strategy, support a student's reasoning (Table 9, strategy 10), is also variation on a known strategy. Almost all teachers helped students to formulate their arguments by giving additional reasons or examples. Notably, in most cases, the teachers did so when a student was defending a minority opinion. In Ben's lesson (Table 4), this is very clear; at the beginning of the dialogue, the students voted by a show of hands, and only one of the students

**Table 10**

Transfer-oriented teaching strategies during the dialogues (facilitation moves) and before or after the dialogues (with the name of the teacher and the theme of the dialogue).

Transfer dimension	Teaching strategy	Facilitation move from observed dialogues	Teaching strategy before or after the dialogues
Making the learning content more meaningful	Preexisting knowledge	Anna (2*): That is similar to Peter Singer's criticism, what was his response to this?	Anna (1): Start lesson with discussing relevant pre-existing knowledge: 'We have been talking about global justice; what have you learned about global justice thus far?'
	Personal experiences	Carel (2): Can someone give an example of an opinion or a thought that you developed independently, without influence of others?	Ethan (1): Individual pre-dialogue assignment: write down an experience related to our central question of today.
	Realistic examples	Carel (1): Do you think a draw is a fair way to distribute admissions to university?	Ben (2): Small group pre-dialogue assignment about a documentary videoclip: discuss to what extent the boys in this video are genuinely themselves.
	Students' beliefs, questions and goals	Anna (1): And what do you think about [giving developmental aid]? Do you think it is the right thing to do?	Carel (2): Individual pre-dialogue assignment: rate the following statements from 0 (completely disagree) to 5 (completely agree): you can never be free when you have to keep to the law; in our school, there is not enough space for self-realization, etc.
Create intercontextuality	Choices in curriculum Recontextualization	<i>No examples found</i> Dirk (1): We have just discussed the implications of structuralism for democracy. What would this mean for education?	<i>No examples found</i> Carel (1): Individual pre-dialogue assignment with five realistic examples related to justice, such as: 'Two people apply for the same job. After the job interview, both applicants appear to be equally qualified and the employer hires the woman because she is a woman. Is this righteous or not?' The other examples were about university admission, squatting, cheap clothes, and income inequality.
	Comparison	Anna (2): So, you do consider your relatives and friends to be your neighbors, but someone from Ethiopia not. Why is that? What's the difference?	Anna (2): Discussing and comparing analogous examples in the post-dialogue theoretical instruction about the 'dirty-hands-dilemma': donating to Live Aid and giving developmental aid to a Nazi-regime. Why would you support the first and not the second? What are similarities and differences?
	Generalization	Carel (1): So, in this situation we have found two conceptions of justice; on the one hand justice means equal treatment for all, and on the other hand it is giving everyone what they deserve.'	Ben (1): Post-dialogue instruction about the ideas of the philosopher Joseph Carens on the justification of national borders. In his explanation the teacher refers to the arguments given in the discussion: 'It is a violation of the human right to freedom of movement and residence, when people from Malawi have to ask permission to enter our country. [...] The argument of Jessica is similar to the objection of Walzer, that one has the right to make rules in one's own house. The question is whether the same arguments apply to houses as to countries.'
Metacognitive reflection	...on learning process ...on learning outcomes	<i>Ethan (1): What have we been doing today?</i> <i>Student: Searching for an answer...</i> <i>Ethan: And we're never done, are we? A rather realistic question such as 'how can we make the world more just?' evokes new questions, which we started to think about. It is a strange combination of philosophy and politics, because we're also thinking about concrete solutions. I think you did this very well today. Thank you for your participation.</i>	<i>No examples found</i> <i>No examples found</i>

\* theme of the lesson: 1 = global justice, 2 = identity, 3 = knowledge.

hesitantly raised her hand when the votes against national borders were counted. After five students gave their arguments in favor of borders, Ben asked this student to defend her vote (line 7) and helped her make her case against borders (lines 8–14). Similarly, in the example in [Table 9](#) (strategy 10), Anna helped a student expressing his concerns about no longer giving developmental aid. By using this strategy, Anna and Ben not only invited a different perspective into the dialogue but also helped a student with a different perspective argue their point, ensuring that this perspective was being represented fairly in the inquiry.

Two of the other teaching strategies for reasoning about values, search for solutions ([Table 9](#), strategy 11) and define values ([Table 9](#), strategy 12), are ways to further examine applied values. When Ethan asked for solutions in the case of the African boy ([Table 9](#), strategy 11), the students came up with creative ideas and practical remarks about a fairer global distribution of opportunities, which they then evaluated. This question thus resulted in value coordination and a more detailed inquiry into the main question: “How do we make the world more just?” In Carel’s dialogue about justice, Carel paraphrased different definitions of justice that came up during the dialogue and wrote them on the blackboard ([Table 9](#), strategy 12). When examining additional cases, the group came up with additional conceptions of justice (such as “everyone is treated equally”, “people get what they deserve”, “goods should be distributed fairly”, or “existing inequalities should be restored”). In the interview, Carel explained that he wrote down the definitions to clarify and distinguish the student’s positions; he stated that he was able to recognize the distinctions because of his own knowledge of philosophy concerning justice. Ethan and Dirk applied this strategy as well, using students’ contributions to define freedom and equality.

Ethan was the only teacher to explicitly challenge relativism ([Table 9](#), strategy 13). However, in many dialogues, students said something to the effect of, “Well, everyone has a different opinion, so we can never agree about that.” Anna, Carel, and Dirk responded to these relativistic contributions with a value-loaded question: “But what do *you* think (is right)?” (with emphasis placed on “you”). In the interviews, the teachers expressed their frustration with such comments; they considered this an excuse for not engaging in inquiry. Ethan took a different approach; he challenged his students’ relativism and encouraged them to seek common ground ([Table 9](#), strategy 13). He said this in a stronger voice, expressing his dissatisfaction, and the students responded by searching for a definition of justice.

With the last two teaching strategies in [Table 9](#), the teachers introduced a new perspective or a value judgement in the inquiry. Both Anna and Dirk introduced and explained a position from moral philosophy. In [Table 9](#) (strategy 14), Anna explained Kant’s argumentation that we have a moral obligation to care about suffering worldwide even though we might not feel as connected to people suffering in Ethiopia as those in our direct environment. By doing this, she offered a new perspective, one that was not yet proposed by a student; this was despite the fact that Anna asked several times whether someone would argue that we have an obligation to prevent suffering, regardless of where it takes place. In her interview, Anna said that she uses this strategy whenever she thinks a philosopher has made a point worth considering that has been lacking in the inquiry thus far. Ben and Carel used another strategy to present a different perspective: they gave their own value judgment. The example in [Table 9](#) (strategy 15) takes place just after the fragment from Ben’s lesson in [Table 4](#), right before the overall dialogue ended. In his interview, Ben explained that he prefers to be explicit about his opinion because he considers this to be more honest and straightforward than leaving students to guess. However, he only expressed his opinion at the end of the dialogues after the students had the opportunity to explain what they think. Carel also gave his opinion in the dialogue about knowledge (topic 3); when the students reached a consensus, Carel expressed his opposing position for the students to consider. In contrast, Anna and Dirk said in their interviews that they were reluctant to express their opinions because the students might be inclined to think that the teacher’s opinion was the “right opinion,” which could obstruct an open inquiry.

#### 4.3. Teaching strategies for transfer

Our second research question concerns strategies to promote transfer of value-loaded critical thinking. Since transfer-oriented teaching strategies can be found in various episodes of a lesson, we analyzed the transcripts of classroom dialogues as well as recordings of whole lessons. [Table 10](#) depicts examples of observed transfer-oriented teaching strategies. We did not observe any strategies for metacognitive reflection, neither on the learning content nor on the learning process. Ben’s lesson ([Table 6](#)) features two transfer-oriented teaching strategies: he made the dialogue more meaningful when asking about a student living in another municipality (line 19) and created intercontextuality by comparing national and municipal borders as analogous situations.

Teachers made the learning content more personally meaningful with pre-dialogue assignments in which students described a personal experience or argued about a realistic example. During the dialogues, the teachers constantly came up with additional questions or examples to make the discussion more meaningful (see [Table 8](#) for selected examples). Nevertheless, in none of the observed lessons were the students given explicit choices in curriculum. In addition to the teaching strategies described in our theoretical framework, Carel made the learning content more meaningful in another way: in his lesson on global justice, after discussing each example (about university admissions, squatting and affirmative action), Carel summarized the discussion and explained present-day policies and recent data about this particular example. By doing this, Carel emphasized the relevance of the classroom dialogue. For instance, Carel said the following about squatting: “Six years ago, the laws about squatting changed. It is illegal now. The conversation you are having today should have been a public debate at the time, but it barely happened. When discussing laws like this, one has to account for what is righteous and answer questions like you are doing right now: What are houses for? What is a fair use of these goods?”

This lesson also provided an example for creating intercontextuality; it started with a pre-dialogue assignment in which various philosophical ideas on justice were problematized in the abovementioned contexts. In the dialogue, Carel applied all three strategies to create intercontextuality: discussing and comparing each of these analogous cases (recontextualization and comparison) and formulating different definitions of justice (generalization). While Carel deliberately designed the assignment to provide scaffolding

for the dialogue, other teaching strategies in [Table 10](#) emerged more spontaneously and “on the spot,” as Anna, Ben and Dirk explained in their interviews; based on their background knowledge of philosophy, they came up with relevant recontextualizations, comparison questions, and definitions.

A specific type of generalization concerns the ideas of philosophers. We observed two distinctive ways of creating intercontextuality between philosophers’ ideas and students’ own philosophizing in classroom dialogues. On the one hand, Anna and Dirk used references to philosophical theory as a valuable opportunity to practice the application of these ideas and to evaluate students’ understanding of them. They asked students to elaborate on this connection or explained the philosophical position themselves. Ben and Carel, on the other hand, only mentioned the philosopher or philosophical concept that was referred to, but refrained from explaining the connection in detail. In his interview, Ben explained that he did so on purpose because he considered the classroom dialogue an opportunity for students to practice their own thinking and the subsequent instruction the time and place to explain the ideas of philosophers, as he does with Carens’ ideas (see [Table 10](#)).

As mentioned above, we did not identify clear examples of metacognitive reflection. The example described in [Table 10](#), from Ethan’s lesson, is one of the few references to what has been learned and how. We also observed teachers summarizing discussed ideas ([Table 9](#), strategy 9) or explaining the importance of the inquiry (Carel in [Table 10](#)), but since the students are not participating, neither of those are examples of students engaging in metacognitive reflection.

## 5. Conclusion and discussion

In this qualitative multiple case study, we identified three categories of teaching strategies to promote value-loaded critical thinking: strategies for addressing, applying and arguing about moral values. The teachers addressed moral values by making them the central topic of inquiry (strategy 1) and ensured that moral values remained the topic of discussion by asking value-loaded questions, highlighting, and re-directing to moral values (strategies 2, 3 and 4). As for applying moral values, the teachers opted for more or less personal questions about realistic examples (evaluate an example, propose a dilemma, or reflect on student’s own actions: strategies 5, 6, and 7), depending on the topic and their assessment of the safety of the learning environment. By giving a counterexample (strategy 8), the teachers applied and proposed a new perspective on the discussed values. Previous studies have described characteristics of dialogic moral education: dialogues in moral education should be about moral values ([Aalberts et al., 2012](#); [Ilten-Gee & Nucci, 2019](#); [Schuitema et al., 2011](#)), and the participants should discuss moral values in relation to concrete situations ([Nucci & Turiel, 2009](#); [Rescher, 2014](#); [Schuitema et al., 2008](#)). Our findings describe the strategies that teachers might employ to bring about these characteristics during classroom dialogues. In addition, to promote arguing about moral values, our observations are consistent with the literature: the teachers used strategies described by [Oyler \(2019\)](#) and [Reznitskaya and Wilkinson \(2017\)](#) or variations thereof when they summarized values, supported reasoning, or defined values (strategies 9, 10, and 12). However, we also identified new strategies in this category, such as searching for solutions (strategy 11), challenging relativism (strategy 13), and teachers offering their own value judgment (strategy 15), which will be discussed in more detail below.

Regarding the second research question concerning transfer-oriented teaching strategies, we found that the teachers used various transfer-oriented strategies: they made the learning content more meaningful and created intercontextuality, but we found no examples of structured metacognitive reflection. This is consistent with the findings of [Elshout-Mohr et al. \(1999\)](#), who examined teachers’ knowledge about insights from educational research, and raises the question of how teachers might be motivated to engage their students in metacognitive reflection.

### 5.1. Challenging relativism and teachers’ value judgments

With these two teaching strategies, the teachers express their own value orientation: Ethan explicitly rejected a relativistic attitude towards moral values (strategy 13), and Ben and Carel expressed their own value judgments on the discussed topic (strategy 15). These strategies raise questions about teachers’ pedagogical principles when facilitating dialogues about moral issues: should they express or promote certain value orientations? In a critical approach to teaching moral values, the main objective is not to impose a specific set of values but rather to teach students the skills of moral reasoning and decision making; this could then help students develop their own set of values ([Schuitema et al., 2008](#)). However, this does not imply that teachers should take a neutral position; [Veugelers \(2000\)](#) argued that a value-neutral position is impossible to achieve because teachers will always express values in their teaching. Nonetheless, it is often considered a strong move when teachers express their own value judgments since “any view expressed by a teacher will be given far greater weight than if it were expressed by a student” ([Sprod, 2001](#), p. 168). Teachers can be hesitant to express their own opinions because they want to ensure an open and inclusive dialogue. However, this was not the case with Ben, as we saw in [Section 4.2.3](#), who prefers to be explicit about his opinion because he considers this fair towards his students. This is similar to what [Veugelers \(2000\)](#) concluded: “Being clear about the values the teacher finds important is necessary in order to avoid a value-neutral position” (p. 39). Matthew Lipman was one of the founding fathers of philosophy for children; [Lipman et al. \(1980\)](#) explained that teachers can assume a role as coparticipant and voice their opinions whenever they “feel that the children have been able to develop their own ideas and hold them in a confident manner” and “when the children themselves have failed to put forth such a point of view” (p. 159). In the observed dialogues, both conditions were met: Ben and Carel expressed their opinion near the end of the classroom dialogue after the students had time to think for themselves and exchange their points of view. Moreover, Carel expressed an opinion that had not yet been put forward in the discussion, and Ben reinforced an opinion expressed (rather hesitantly) by only one student. According to [Sprod \(2001\)](#), teachers have to be aware of their special position in a community of inquiry, but precisely because teachers are role models, they should sometimes voice their opinions. When they never do so, teachers might (involuntarily) communicate that it is not

important to hold moral views or inquire about moral matters, thus promoting moral indifference or ethical relativism (Sprod, 2001).

### 5.2. Searching for solutions

In the dialogue about global justice, Ethan asked his students to come up with solutions for an undesirable situation (strategy 11). With this move, Ethan goes beyond a moral evaluation of the situation, rather he asked his students to deliberate how the situation could be improved (Parker & Hess, 2001). The concepts of *speculation* (Marsal, 2015) and *imagination* (Bleazby, 2012) can help to explain how this teaching strategy promotes value-loaded critical thinking. Through speculation or imagination, students envision how the world can be transformed in accordance with their ideals or values; that is, they imagine what would be the right thing to do in an undesirable situation (Bleazby, 2012; Marsal, 2015). This is not just a new direction in their thinking about the situation at hand, but it can also change how students think about themselves, namely as people who can act in accordance to their ideals as autonomous and moral people (Bleazby, 2012; Marsal, 2015). Accordingly, searching for solutions might contribute to the metacognitive dimension of critical thinking, that is to self-reflective aspects of value-loaded critical thinking.

When we interpret searching for solutions as a deliberative kind of reasoning rather than evaluative, this also raises questions about the threefold distinction of teaching strategies we have presented in this paper. The third category, arguing about moral values, seems less internally homogenous than the other two categories. Further theoretical research is needed to conceptually refine these categories and to determine whether we might need to add an additional category of teaching strategies to promote *acting* in accordance with their moral values.

### 5.3. Limitations

Evidently, a small-scale study like this has its limitations. This has been a first attempt to identify and categorize teaching strategies for promoting value-loaded critical thinking in classroom dialogues and we do not present the resulting list as an exhaustive one. It is essential to consider the internal homogeneity of teaching strategies for promoting arguing about moral values expressed in Section 5.2. However, based on the work of Arendt (1992) and Dewey (1919), we can imagine that there are additional teaching strategies to promote “visiting” the perspectives of others (Arendt, 1992), or students going out of the classroom to engage in moral action and reflection upon those experiences (Bleazby, 2012; Dewey, 1919).

Furthermore, we did not evaluate the quality of value-loaded critical thinking in the observed classroom dialogues. We used the number of value-loaded utterances as a selection criterion for further analysis, but this is not necessarily an indicator of the quality of value-loaded critical thinking. Future research should also consider the quality of value-loaded critical thinking during classroom dialogues. To better focus on quality of value-loaded critical thinking, we could combine insights from research on the cognitive dimension of critical thinking (Chinn, O’Donnell & Jinks, 2000; Erduran, Simon & Osborne, 2004; Oyler, 2019) with research on value-loaded critical thinking (Frijters et al., 2008; Schuitema et al., 2009).

In addition to the aforementioned limitations, we have argued in our theoretical framework that value-loaded critical thinking should be taught through dialogue because open, authentic, and rational inquiry with others is essential for thinking critically about moral issues (Burbules & Berk, 1999; Ten Dam & Volman, 2004). In this study, however, we did not focus on the dialogic quality of the observed dialogues. The dialogues were about open and contestable questions; on average, 56% of the students present contributed, and in most discussions, the participation of students and teacher was quite equally distributed (teachers took 48% of the turns and contributed 53% of the total number of words on average). However, this does not shed light on the extent to which students build on each other’s contributions or whether they experienced the dialogues as open and inclusive. Future research on value-loaded critical thinking should evaluate teaching strategies to promote reasoning about moral values in this light: do these strategies contribute to authentic dialogue about moral issues?

Another limitation is that we have analyzed the dialogic inquiries in each classroom as three separate events. In this way, we cannot account for aspects related to the development of the community of inquiry over time (Lipman et al., 1980; Sprod, 2001), also called the *long conversation* between students and the teacher (Mercer, 2008). As researchers, we might thus fail to notice attempts to create intercontextuality or to make the learning content more personally meaningful because we are unaware of references to previously discussed examples, value judgments, et cetera.

### 5.4. Future research and implications for educational practice

Future research should be aimed at further development of dialogic teaching strategies for value-loaded critical thinking in a way that is relevant to existing educational practices and practical in use for teachers. We suggest that researchers take an educational design research approach (Bakker, 2018) to collaborate closely with teachers, make optimal use of their practical wisdom, and make sure that the designed teaching strategies are relevant and practical (Plomp & Nieveen, 2013). At a later stage, the effectiveness of the developed strategies should be empirically evaluated. An intervention study might shed light on whether and how students’ value-loaded critical thinking improves when teachers implement these teaching strategies in classroom dialogues. In order to better measure students’ value-loaded critical thinking capacities, reliable and valid evaluation instruments need to be developed.

We conclude by pointing out that these results may be useful for teachers interested in teaching their students to reason critically about moral and societal issues, both for teachers of philosophy and of other subjects. Talking about values in class can be complex and challenging, especially when the topic is controversial or sensitive, but this study provides teachers with suggestions for preparing and conducting a dialogic inquiry about a value-loaded topic and with an analytic framework to reflect on their practice.

### CRedit authorship contribution statement

**F. Rombout:** Conceptualization, Methodology, Investigation, Writing – original draft, Writing – review & editing, Funding acquisition. **J.A. Schuitema:** Conceptualization, Methodology, Writing – review & editing, Supervision. **M.L.L. Volman:** Conceptualization, Methodology, Writing – review & editing, Supervision, Funding acquisition.

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**F. Rombout:** Conceptualization, Methodology, Investigation, Writing – original draft, Writing – review & editing, Funding acquisition. **J.A. Schuitema:** Conceptualization, Methodology, Writing – review & editing, Supervision. **M.L.L. Volman:** Conceptualization, Methodology, Writing – review & editing, Supervision, Funding acquisition.

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