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RELIGIOUS-THINKING-THROUGH USING BIBLIODRAMA: AN EMPIRICAL STUDY OF STUDENT LEARNING IN CLASSROOM TEACHING

Bibliodrama in the classroom was examined by focusing on the relationship between student learning activities and teacher behavior; in doing so, a qualitative cross-case analysis of six lessons was performed. The effectiveness of religious-thinking-through was operationalized into three higher-order learning activities (testing positions, producing criticism and reflecting) and six teaching scaffolds. Correspondence analysis yields a scale that contrasts lessons that are more and lessons that are less effective in learning and teaching. The specific contribution of an effective religion teacher is to show understanding, give space and listen. When he asks meta-cognitive questions in a debating way of connective truth finding this leads to a higher level of religious-thinking-through by students.

LINE OF THINKING

In Dutch secondary schools, an effective approach to religious education is "thinking through". The most important learning theory wherein students think through is constructivism (Duffy & Cunningham, 1996), in which learning is a largely interactive process involving the construction of new knowledge and skills based on an individual's prior knowledge (Glaser, 1991). Traditionally, theology is a subject that focuses on truth; for theologians and philosophers, the questions "What is truth?" and more specifically "How and why are statements about God true?" are among the most important (Lamberigts, Boeve, Merrigan, & Claes, 2006; Ormerod & Jacobs-Vandegeer, 2015; Roebben, 2015). However, in addition to contemplating this question, a method of truth finding must be adopted.

Teachers can use various activating exercises in truth finding and thinking-through religious education (Baumfield, 2002). Imants and Oolbekkink (2009) identified five components that affect the activation of didactic arrangements: the structuring of educational assignments, quality of collaborations/interactions, interim/final classroom evaluations, documentation of learning experiences, and explicating a line of thinking regarding a subject. As staff members at the Catholic School of Theology, van Dijk-Groeneboer, Boelens, and Kienstra (in press) developed teaching materials intended to activate didactic arrangements, which they dubbed religious-thinking-through.

The present authors are interested in how religious-thinking-through can be realized at a higher level. Hence, this study focuses on a teacher's role, namely with respect to the use of scaffolds such as feedback, hints, instructing, explaining, modeling, and questioning—in addition to others (van de Pol, Volman, & Beishuizen, 2011); the effectiveness of each respective teaching scaffold is nevertheless unknown. The conceptual framework of a religious education lesson is adopted wherein the relationship between teacher behavior and religious-thinking-through by students plays a central role. This relationship is influenced by the teacher's lesson design. However, what behaviors do students exhibit when they perform

religious-thinking-through? To qualify such moments, Baumfield's (2003) higher-thinking skills are adopted (i.e., evaluation, critique, thinking about one's thinking). These stages entail testing, producing criticism, and reflecting (Kienstra, Karskens, & Imants, 2014; Kienstra, Imants, Karskens, & van der Heijden, 2015).

Teaching scaffolds are important in guiding students through the learning process (van de Pol, Volman, & Beishuizen, 2010). Feedback involves the direct evaluation of students' behaviors, whereas hints entail providing clues regarding a given topic (or the deliberate withholding of a complete solution); instructing encompasses requesting a specific action or supplying information so that students understand what to do and how. Likewise, explaining involves providing information concerning how and why. Modeling encompasses demonstrating a behavior for the purpose of imitation; questioning entails prompting students to think, or to request a specific reaction. In this study, a distinction is made between lower-order, higher-order, and meta-cognitive questioning.

Teaching styles can be divided into three types: problem oriented, historically oriented, and person oriented (van der Leeuw & Mostert, 1991). In the problem-oriented teaching style, thinking through involves solving/answering philosophical and theological problems/questions. On the other hand, a philosopher or theologian's primary task in the historical teaching style is to interpret/reinterpret the philosophical and theological past by using each discipline's established texts. In the person-oriented teaching style, thinking through is an attempt to create an individual, reasonably justified worldview. Indeed, an alternative conception of philosophy or theology has a more positive impact on a teacher's practices than telling stories or reading texts, as it creates

> a completely different atmosphere in the classroom, with an alternative distribution of student and teacher roles. In one classroom, students work quietly on a problem while an instructor assigns them tasks; in another, the teacher gives an energetic performance as fascinated students observe; in the third classroom, a lively exchange of ideas may occur (van der Leeuw & Mostert, 1991, 24).

Hence, van der Leeuw and Mostert propose combining teaching styles in order to accommodate curriculum demands, as well as those of students and philosophy/theology in their own right.

In a review of prior studies, Kienstra et al. (2014) identified 30 domain-specific exercises; a content analysis of these exercises revealed three common and distinct approaches to truth finding. The first involves a form of connective truth finding (CTF), wherein students collectively search for truth through narratives and conversations. The second entails a form of test-based truth finding (TTF), in which students search for scientific truth in a manner similar to scientists. The third, juridical debate (JD), encompasses a juridical approach to determining truth and truth values by discussing competing or opposing claims, after which a competent judge reaches a verdict (Oakeshott, 1975). In this study, these three approaches are employed to create a relevant educational context wherein teacher and student activities can be understood. The Bibliodrama religious exercise can be categorized as a CTF approach (van Dijk-Groeneboer, Boelens, & Kienstra, 2016).

METHOD

To study the relationship between teaching context and students' learning activities, a mixed-methods comparative case study methodology was adopted (Yin, 2014), wherein complete lessons were compared and individual lessons thoroughly examined; student questionnaires, teacher logs, and classroom teaching materials were used to gather data. A two-phase approach was employed in which each lesson was analyzed separately, followed by

a comparison of cases. For the latter, Miles and Huberman (1994) proposed using a meta-matrix to easily compare the main findings of each summarized case. The present research comprises a qualitative study based on the meta-matrix in conjunction with the quantitative tool correspondence analysis (CA, Greenacre, 2007; compare Kienstra & van der Heijden, 2015), which will assist in comparing lessons.

Olav, a male teacher with a master's degree in theology, a teacher's certificate, and 21 years of classroom experience in religious education, participated in the study along with his students. There were a total of 83 students; however, the number of pupils in each class ranged between 4–24, with an average of 14. Six lessons were examined in their entirety. During the 2015–16 academic year, Olav was enrolled in a continuing education course at Tilburg University, which was intended to inspire instructors and their students through a new teacher education curriculum. The six aforementioned lessons were not associated with this continuing education course.

To ensure coding reliability, the following approach to researcher triangulation was used. Initial coding was performed by the article's first author, who developed coding criteria based on prior research and the collected data. The first and second authors then discussed these criteria until a consensus was reached. Monthly sessions followed wherein the first and second authors discussed the questionnaires' coding by examining all available data. Agreement was generally achieved regarding most coding decisions; nevertheless, there were occasionally differences in interpretation, owing primarily to ambiguous statements in some responses. These differences were considered until a mutual decision could be made. During the aforementioned phases, the article's third author functioned as a debriefer, who challenged the criteria when necessary through discussion and by supplying appropriate examples. In cases wherein differences arose regarding the interpretation of criteria or examples, the three authors deliberated until a second consensus was reached. The article's first author reviewed the data again if recoding was necessary.

RESULTS

Religious-thinking-through by students

The initial data analyses outcomes for the six lessons are provided in Table 1 as a meta-matrix; it shows results pertaining to lesson design, teacher behavior, and religious-thinking-through by students. The columns and rows include lessons and variables, respectively.

We provide a reading instruction for the lessons of Olav. There were six groups of adolescents from the teacher-training education primary school, four from PABO (13, 18, 8, and 16 students in 1A, 1B, 1C, and 1D, respectively), and two from WFS (24 and 4 in groups 1 and 2, respectively). The Bibliodrama exercise was used, which is in agreement with the CTF approach's underlying principles.

In 1A, the exercise was executed according to the CTF approach; nevertheless, the corresponding learning activity was more akin to a combination of CTF, TTF, and JD. Throughout the lessons, Olav successfully employed two of the three teaching styles concurrently. Moreover, from among the six scaffold types, he displayed 74 teacher behaviors; these included hints, explaining, and modeling (each displayed once), as well as instructing (twice), questioning (59 times), and showing understanding/giving space/listening/summarizing/anticipating (10 times). In addition, three higher-thinking skills were scored: evaluation/testing (level 3), producing criticism (level 4), and reflecting (level 5). The highest levels were reached for evaluation/testing in four lessons (i.e., 1B, 1C, 1D, WFS Group 2), and for reflecting in two lessons (i.e, 1A, WFS Group 1).

Table 1
Meta-matrix with results for variables regarding lesson design, teacher behaviors, and religious-thinking-through by students in six Bibliodrama lessons

VARIABLE		Lesson 1 (1A)	Lesson 2 (1B)	Lesson 3 (1C)	Lesson 4 (1D)	Lesson 5 (WFS Group 1)	Lesson 6 (WFS Group 2)	Instrument*
I. Lesson Design								
Truth-finding approaches								
Connective truth finding (CTF), test-based truth finding (TTF), juridical debate (JD)	Design	CTF	CTF	CTF	CTF	CTF	CTF	c
	Execution	CTF	CTF & JD	JD	CTF	CTF & JD	CTF	b
	Learning activities	11.33 CTF 0.33 TTF 1.33 JD	17.33 CTF 0.33 TTF 0.33 JD	7.33 CTF 0.33 TTF 0.33 JD	14.33 CTF 1.33 TTF 0.33 JD	23 CTF** - -	4 CTF - -	a
II. Teacher behaviors								
Number of teaching styles		2	2	2	2	2	2	c
Interactions	Exercise design	Bibliodrama	Bibliodrama	Bibliodrama	Bibliodrama	Bibliodrama	Bibliodrama	c
	Execution of exercise	11 scaffolds	15 scaffolds	8 scaffolds	10 scaffolds	25 scaffolds	5 scaffolds	a
	Feedback							
	Hints (Hin)				1			
	Instructing (Inst)	1	1					
	Explaining (Exp)	1						
	Modeling (Mo)						1	
	Lower-order questioning (LOQ)	2	7	3	2	7	1	
	Higher-order questioning (HOQ)	3	6	1	5	8	2	
	Meta-cognitive questioning (MCQ)	4		2	1	4	1	
	Miscellaneous (Mi)		1	2	1	6		
III. Religious-thinking-through by students								
Highest level reached (1–5)		5	3	3	3	5	3	a

* a = questionnaires; b = teacher logs; c = classroom teaching materials
** One student did not respond on this question.

Teacher behaviors

In their questionnaire responses, students indicated how the scaffolds were used (excluding feedback, as it was not employed). The miscellaneous category comprised showing understanding, giving space, and listening. Further information regarding the scaffolds is provided in Table 2.

Table 2
Frequencies and descriptions of teacher behaviors (scaffolds) in the Bibliodrama lessons

Number of teacher behaviors (total 74)	Behavior	Description	Example
0	Feedback	The direct evaluation of students' work/behaviors	
1	Hints	Providing hints with respect to a given topic (or deliberately withholding complete solutions)	*The teacher did not indicate who God is exactly; you can decide this for yourself, I think.*
2	Instructing	Supplying information so that students know what to do and how Requesting a specific action	*Using words regarding God's question. God's question may also involve self-confidence.*
1	Explaining	Explaining how and why	*Explaining meanings.*
1	Modeling	Demonstrating a behavior for the purpose of imitation Focusing on process rather than product	*Collectively searching for metaphors.*
59	Lower-order questioning (22) Higher-order questioning (25) Meta-cognitive questioning (12)	Questions that evoke thinking Questions that evoke further thinking Questions that evoke a specific reaction	*Who is God in the story? Was he the master? Asking questions, thinking-through questions, and clarifying questions. He solicited open questions. Questioning one's feelings.*
10	Miscellaneous	Showing understanding Giving space Listening Summarizing Anticipating	*Everything was alright, could be there. He was calm.*

Relationship between lesson design, teacher behaviors, and religious-thinking-through

Table 1 could not be analyzed using CA directly; hence, with some minor adjustments it was coded into a super-indicator matrix (not shown), which was subsequently analyzed using CA. In Figure 1, each variable is placed on a separate horizontal line, beginning with approaches and ending with the highest level; the scattered dots along the bottom line represent each lesson. CA examines differences between lessons; as such, the design of the truth-finding approaches (which were always CTF) and number of teaching styles (which were always two) were ignored, since they did not differ between lessons (see Table 1).

In Figure 1, lessons 1 and 5 are on the left, whereas 2–4 and 6 are on the right. Reflecting had the highest level of religious-thinking-through by students on the left (5), followed by testing on the right (3). This shows that religious-thinking-through was most effective during lessons 1 and 5, and least effective during lessons 2–4 and 6. In addition, teacher behavior often resulted in meta-cognitive questioning (see Table 1), predominantly during lessons 1 and 5. With respect to lesson design, CTF was generally used during the learning activities (in Figure 1 Approaches La), and is therefore at the center. The effective lesson (i.e., the first) mixed CTF with JD more frequently when compared to others, which is why JD appears on

the left. Likewise, TTF was used more frequently during the less-effective lesson (i.e., the fourth).
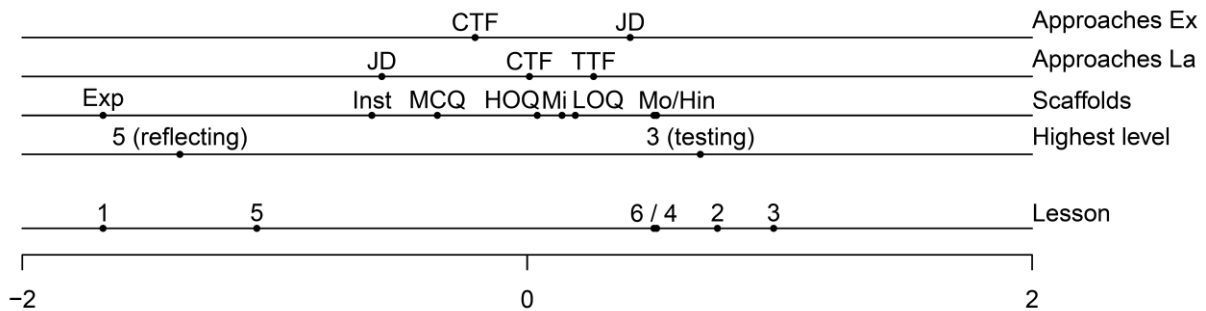

Figure 1. First dimension of the CA based on the meta-matrix results (see Table 1 for an explanation of the labels).

According to the CA, meta-cognitive questioning and CTF through a form of debate were closely related to higher level religious-thinking-through by students (i.e., when students are in fact religiously educated and learning). The two most extreme lessons (with respect to effectiveness and ineffectiveness) serve as examples to clarify the CA. Excerpts from the most-effective lesson (i.e., 1A), which was taught by Olav, follow.

Lesson 1: The most effective
Teacher questions in the classroom material and students' questionnaire responses from this lesson are described below.

Questions concerning the calming of the storm by Jesus on the Sea of Galilee (Mark 4:35–41).
- What other part would you have liked to have played and why?
- What do you think of the story's ending?
- Would you have enjoyed having Jesus as portrayed in this story in your boat?
- What kinds of emotions did you feel?
- Jesus calls on us to transform fear into faith, and anxiety into trust (i.e., transference): "*Why are you so afraid? Do you still have no faith?*" What does Jesus mean by this exactly, and how can the transference process be achieved?
- How would you assist a terrified friend?
- What connects you and why?
- What values play a role in this text? Which do you believe is the most important?
- Everyone is occasionally afraid, particularly nowadays owing to international events. With respect to the fear surrounding assaults, war, violence, fugitives, and the economy, how do you think Jesus would react? Despite all of this misery, why should we remain unafraid?
- Why was Jesus unafraid of the storm?
- How can a higher power support people during a time such as this?
- What do you think of each other's answers? Are some better or worse?
- What do you think of each other's approaches? Are some better or worse?
- Are any improvements possible?

The questionnaire asked students to identify the teacher's behaviors. Examples of their responses (with a focus on meta-cognitive questioning) are as follows:
- [The teacher] asked what [we] thought about the master (i.e. God).

- [The teacher] asked questions about our choices.
- [The teacher] asked why we perceived [something] a certain way.
- [The teacher] asked why we selected a [certain] part.

Lesson 3: The least effective

Lesson 3 was the least effective. The following are responses from students concerning meta-cognitive questioning in the lesson.

- [The teacher asked us to] question our feelings.
- [The teacher] asked us to evaluate the time [in which] Jesus lived, whether we would be afraid, and those kinds of things.

DISCUSSION

In this study, a single instructor was examined in various teaching contexts among different groups of students; in the future, greater data from a more diverse sample of teachers should be collected. Scaffolds such as showing understanding, giving space, and listening are important, and ought to be considered with respect to religious-thinking-through and theologizing in religious education lessons (Kuindersma, 2013).

CTF is not always the most effective truth-finding method (Kienstra, Imants, Karskens, & Van der Heijden, 2015). In this small-scale study, students learned most effectively using CTF through a form of debate during a Bibliodrama exercise (which is in agreement with the CTF approach's underlying principles). In executing the truth-finding approach, CTF was predominately used by the instructor during more effective lessons (see Table 1 and in Figure 1 Approaches Ex). This could be because the CTF approach, unlike debating in the JD approach, facilitates showing understanding, giving space, and listening.

CONCLUSIONS

Higher-thinking skills were evident among students during the Bibliodrama exercise. The lesson's design and execution were primarily based on CTF; JD occurred most frequently in effective learning activities. In addition to common scaffolds (e.g., hints, instructing, explaining, modeling), lower-/higher-order and meta-cognitive questioning were used; showing understanding, giving space, and listening were noteworthy complementary scaffolds. Meta-cognitive questioning produced religious-thinking-through of a higher level. Hence, Bibliodrama is an effective means of achieving higher-level religious-thinking-through when combined with appropriate scaffolds in a suitable teaching context.

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