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Article

Improving citizenship competences: Towards an output-driven approach in citizenship education

Hoek, Lianne[a], **Munniksma, Anke**[a], & **Dijkstra, Anne Bert**[a]

[a]Department of Child Development and Education, University of Amsterdam, Amsterdam, The Netherlands

Keywords: Citizenship education; Measuring citizenship competences; Output-driven approach; Data-use in education; Social outcomes of education

Highlights:

- Research on effective characteristics of citizenship education is still scarce.
- An output-driven approach may improve the effectiveness of citizenship education.
- We reflect on the feasibility of an output-driven approach to citizenship education.
- We conclude that such an approach seems feasible for citizenship education.
- Normativity and the availability and quality of measurement instruments need attention.

Purpose: Scholars are increasingly paying attention to the characteristics of effective citizenship education. The systematic use of data to maximise student learning, also called an output-driven approach, is often presented as a powerful predictor of student outcomes. However, its effectiveness has not been studied in citizenship education. Therefore, this paper aims to theoretically reflect on whether an output-driven approach is also feasible for citizenship education.

Methodology: We distinguish five building blocks of an output-driven approach and elaborate on their applicability in citizenship education. While doing so, we draw attention to the normative notion in citizenship education and the quality and availability of measurement instruments for citizenship competences. Both may challenge the application of an output-driven approach, particularly given the relatively young tradition of measuring citizenship competences.

Findings: We conclude that an output-driven approach in citizenship education seems feasible, provided that the characteristics of citizenship education are carefully considered.

Corresponding author:
Lianne Hoek, MSc., Nieuwe Achtergracht 127, 1018WS Amsterdam, The Netherlands. email: l.h.m.hoek@uva.nl

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1 INTRODUCTION

Increased diversity in society, continuing individualisation, growing polarisation and hardening in the social climate (Mattei & Broeks, 2018; Organisation for Economic Co-operation and Development, 2010) underscore the need for social cohesion (Dijkstra, 2012). To meet this need, many countries are stressing the importance of strengthening citizenship in society through citizenship education (Eurydice, 2017; Schulz et al., 2018). In this approach, citizenship education is important in countering threats to tolerance, equality, individual freedom and social cohesion, and democracy in general, such as lack of trust in democratic processes (Eurydice, 2017). It does so by fostering mutual respect, promoting fundamental democratic values, and strengthening students' social and civic competences (Ten Dam, Geijsel, Reumerman, & Ledoux, 2011).

Following up on the growing emphasis on citizenship education, scholars are increasingly paying attention to the characteristics of effective citizenship education and to gaining insight into its outcomes in terms of citizenship competences (Cleaver, Ireland, Kerr, & Lopes, 2006; Daas, Ten Dam, & Dijkstra, 2016; Ireland, Kerr, Lopes, Nelson, & Cleaver, 2006; Schulz et al., 2018). The results in this field point to the importance of providing students with an open classroom climate that fosters a respectful exchange of diverse opinions and enables students to practice posing an opinion independently (Geboers, Geijsel, Admiraal, & Ten Dam, 2013; Isac, Maslowski, Creemers, & Van der Werf, 2014; Maurissen, 2020; Wanders, Dijkstra, Maslowski, & Van der Veen, 2020). In addition, creating opportunities for students to learn and practice democracy (Isac et al., 2014) and engage in political activities in school (Hoskins, Janmaat, & Melis, 2017) make a difference in students' civic competencies. However, research on the effectiveness of schools in promoting citizenship is still scarce (Coopmans, Ten Dam, Dijkstra, & Van der Veen, 2020; Dijkstra, De la Motte, & Eilard, 2014).

Scholars studying school effectiveness in other educational domains, such as reading and mathematics, have frequently presented the systematic use of data as a potentially powerful predictor of learning outcomes (Van Geel, Keuning, Visscher, & Fox, 2016; Van Kuijk, Deunk, Bosker, & Ritzema, 2016). The systematic use of data to maximise student learning is often referred to as an output-driven approach (Visscher & Ehren, 2011). An output-driven approach can help teachers make informed educational decisions (Kippers, Poortman, Schildkamp, & Visscher, 2018; Staman, Timmermans, & Visscher, 2017) and base these decisions on more than intuition, experience and gut feelings (Ingram, Louis, & Schroeder, 2004). Throughout the years, various scholars have demonstrated the positive effects of an output-driven approach in the domain of academic achievement.

For example, Van Geel et al. (2016) found that a two-year data-based decision-making intervention in schools improved student achievement in terms of student arithmetic scores. In addition, extensive training of primary school administrators in interpreting and using student learning analytics strengthened arithmetic achievement among students in the US (Carlson, Borman, & Robinson, 2011). Using a pretest-posttest control group design, Van Kuijk et al. (2016) found that setting standards and performance goals

for students, applying formative assessment and data use, and acquiring relevant instructional skills and content and curriculum knowledge improved students' reading achievement in primary education. In addition, Slavin, Cheung, Holmes, Madden, and Chamberlain (2013) followed primary and middle schools in adopting a data-driven reform intervention designed to help school leaders understand student data and change teaching and learning based on these data. The findings show direct positive effects of the intervention on students' reading and arithmetic achievement. Similar results were found by Förster, Kawohl, and Souvignier (2018), who conducted their research in primary schools in Germany. Students whose reading achievement was frequently monitored by teachers showed higher reading fluency than students in a control group. This moderate effect appeared to be stable for at least two years. Such long-term effects were also demonstrated in the context of New Zealand (Lai, McNaughton, Amituanai-Toloa, Turner, & Hsiao, 2009). The authors followed students longitudinally for three years. The findings show positive effects on reading comprehension of ethnic minority students with low socioeconomic backgrounds.

Whereas most studies concluded that an output-driven approach in education effectively improves teaching and its outcomes, in some studies, no clear-cut evidence was found to support this conclusion. Comparing Dutch primary schools in an experimental group (using a digital formative assessment tool) with a control group (using their regular spelling instruction and materials), Faber and Visscher (2018) found that the use of the digital formative assessment tool did not affect third-grade student spelling achievement. According to the authors, possible explanations for this finding are the aesthetics of the tool and the number of assignments the students completed. Staman et al. (2017) found that a two-year data-based decision-making training course for teachers, principals, and academic coaches in primary schools in the Netherlands did not improve student arithmetic achievement compared to a control group. However, they found interaction effects indicating more positive results for students with lower pre-test scores and students with low SES backgrounds, which is in line with Van Geel et al. (2016). In an attempt to explain the lack of direct effects, Staman et al. (2017) mentioned the duration of the intervention (which might have been too short) or the implementation of the intervention (which might have been too fragmented). On a central condition, they also mentioned the poor data literacy of teachers. During the intervention, it appeared that the teachers experienced difficulties in translating the results of the data analysis to more specific teaching strategies.

All in all, there seems to be substantial empirical evidence suggesting positive effects of an output-driven approach on student outcomes in the domain of academic achievement. Yet, despite the demonstrated effectiveness of output-driven teaching, such an approach has not been extensively applied to citizenship education (Eurydice, 2017). This is a remarkable observation when we consider that, next to preparation for the labour market, identity formation and social and cultural upbringing are widely conceived as the main goals of education (Dijkstra, De la Motte, & Eilard, 2014). These goals

align with the qualification (i.e., the domain of education that prepares students for the labour market) and socialisation (i.e., the domain of individual and social development fostering individual potential and participation in society) function of education. The importance of research on data use in both the qualification and socialisation domain of education is gradually being recognised (Dijkstra, Daas, De la Motte, & Ehren, 2018; Mandinach & Jimerson, 2016; Schildkamp, 2019).

1.1 The present study

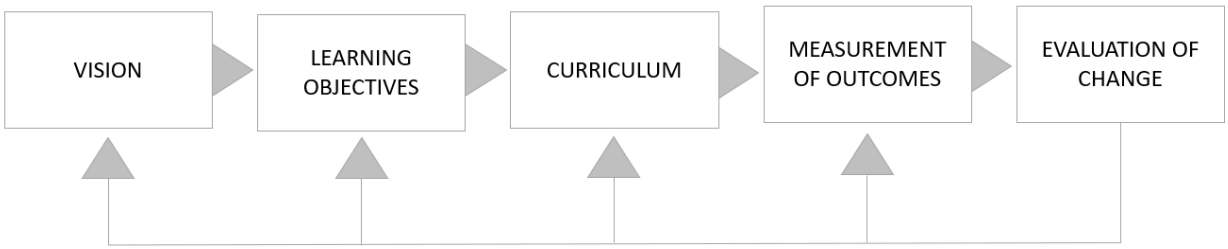
One of the crucial elements of the successful development of students' social and civic competences is a focus on learning outcomes (Dijkstra, De la Motte, & Eilard, 2014; European Commission, 2009; Eurydice, 2017). In the same way student outcome data in subjects like reading and arithmetic provide information on learning outcomes, student outcome data in citizenship education provide insight into students' civic knowledge, attitudes, and skills. In addition, student outcome data in citizenship education can guide and optimise students' learning processes, adjust learning contents to students' needs, and construct the curriculum. In this respect, monitoring citizenship competences gives schools a better understanding of the effects of their teaching, helps them adjust their curricula to student needs and helps to improve the quality of teaching and learning (Dijkstra, De la Motte, Ehren, & Eilard, 2014). Monitoring citizenship competences also contributes to a broader and better understanding of the quality of schools and prevents the narrowing down of education, which may be an unintended consequence of evaluations focusing solely on the qualification function (cf. Koretz, 2008).

However, the applicability of an output-driven approach in citizenship education is not as self-evident as it is in a subject like mathematics. This may be due to certain characteristics specific to citizenship education, such as that it is usually offered in projects and themes rather than in a separate subject, that measurement in this domain is relatively new, and that measurement instruments are not yet widely available to schools. Schools may also be reluctant towards measurement in citizenship education because of its normative notion: the question of what are considered 'sufficient' citizenship competences is not as evident as the similar question for mathematics competences (i.e., where everybody agrees that 1 + 1 = 2). However, in line with the potential of an output-driven approach as demonstrated with subjects like reading and mathematics, it is interesting to examine whether an output-driven approach would also be applicable in citizenship education. This rationale leads to the central question in the present study: To what extent can an output-driven approach be applied to citizenship education? We seek to answer this question by presenting the building blocks of an output-driven approach and examining their applicability to the context of citizenship education.

2 BUILDING BLOCKS OF AN OUTPUT-DRIVEN APPROACH

Based on theoretical and empirical insights on the effectiveness of an output-driven approach, five main building blocks of an output-driven approach can be distinguished (Figure 1). The first one concerns the formulation of a vision, in which the school thinks of the overarching goal of (a specific domain of) their education. The second building block concerns these learning objectives, usually embodied by more detailed goals in which all main components (differentiated into knowledge, attitudes, and skills) become visible. This helps to translate the schools' vision into precise learning content. The third concerns the design of the school's curriculum so that the learning objectives can be met. The fourth building block involves the measurement of the outcomes. At last, the school evaluates whether the desired learning effect has occurred and what follow-up steps seem appropriate. Such an output-driven approach is generally conceived as a cyclic process (Kippers et al., 2018; Ledoux, Blok, Boogaard, & Kruger, 2009). This section elaborates on these building blocks of an output-driven approach and provides hands-on examples of how it could be applied to citizenship education.

Figure 1. Model of the output-driven citizenship education approach



2.1 Vision

The point of departure in an output-driven approach in education is the formulation of an overarching *vision* or purpose. A vision indicates for which purpose a school educates its students: it is a broad indication of the contents to be covered and the learning goals to be achieved (Eurydice, 2017). A vision is important because it enables schools to structure their curriculum and set learning objectives according to this vision and because it enables clear communication about the contents of citizenship education with teachers, students and parents (Hilbers, Dekkers, & Dijkstra, 2010). It is essential that the vision is shared by all school professionals (Schildkamp & Poortman, 2015), also when a vision dynamically changes throughout the years. An example of a vision for citizenship education is: *Students are prepared to be part of, and participate in, a pluriform and democratic society and, as a means to this, are tolerant and respectful towards differences in terms of culture, ethnicity, religion, sexual orientation and physical appearance; and underscore democratic values and constitutional rights.*

2.2 Learning objectives

After having formulated a vision, the school should set clear *learning objectives*. Whereas a vision is generally formulated in broader terms, learning objectives are more specific goals that help a school realise its vision (Van der Kleij, Vermeulen, Schildkamp, & Eggen, 2015). Learning objectives must be worded precisely (Ledoux et al., 2009) and, similar to the vision, shared by all school professionals (Schildkamp & Poortman, 2015). Learning objectives may focus on the desired student achievement level or on identifying gaps between the current and desired achievement levels. In line with the previous illustration, an example of a learning objective for citizenship education is: *Students can recognise a situation where a person is being discriminated against.*

2.3 Curriculum

Once a school has developed a vision and accompanying learning objectives, the school designs the *curriculum* in a way that the learning objectives can be realised. According to Leeman, Nieveen, Beer, and Steen (2020), who built on the work of Goodlad, Klein, and Tye (1979), schools can focus on three aspects in this respect: (1) the essence, such as the vision, goals, content and pedagogical approaches (i.e., the substantive perspective); (2) the processes that are needed to design, develop, implement and improve the curriculum (i.e., the professional design perspective); and (3) the political processes and social interactions within the school that influence the curriculum design (i.e., the socio-political perspective). Following our learning objective above, an example of curriculum design for citizenship education is: *In line with legal guidelines and the school-specific vision and learning objectives (i.e., substantive perspective), the school designs the curriculum in a way that students learn what is, and what is not considered discrimination; and how non-discrimination is secured in the constitutional law – including why this is important for a democratic society. While doing so, the school aligns the goals, teacher and student activities and assessment (i.e., professional design perspective). In addition, the school strives for a democratic school culture in which school professionals are involved in the design and decision-making activities related to the school's general educational aims (i.e., socio-cultural perspective).*

2.4 Measurement of outcomes

In the fourth step of an output-driven approach, schools should *collect data* on the extent to which the learning objectives are achieved (Kippers et al., 2018; Van der Kleij et al., 2015). Here, it is vital that schools use reliable and precise information about individual students or the school to secure the quality of the data (Schildkamp & Poortman, 2015; Van Geel & Keuning, 2016; Visscher & Ehren, 2011). In this respect, using standardised tests strengthens the robustness of the data because the measurement is similar for all students (Van Geel & Keuning, 2016; Visscher & Ehren, 2011). Standardisation can be achieved by

using a fixed, comprehensive set of assignments for all students and eventually comparing student scores to a set standard or peer scores. Schools are encouraged to use multiple data sources to enable insight into differential effects, such as (standardised) student assessment data and demographic information (Hoogland et al., 2016). In citizenship education, an example of measurement is: *Students fill in a questionnaire that provides them with cases of a justified distinction between individuals and cases of discrimination. Students are asked to use their knowledge to identify the cases as such.*

2.5 Evaluation of change

The output-driven approach ends with an *evaluation of change*. In this building block, the school evaluates whether the desired change has occurred by following two steps: (a) analysing and interpreting the data and (b) determining possible follow-up steps.

First, schools should *analyse and interpret the data* that have been collected. In other words, schools give meaning to the data by deciding whether the data align with the learning objectives. In citizenship education, absolute norms to indicate proficiency levels in citizenship competence are scarce and require development. Another way to interpret and assess citizenship competences is a relative or benchmark approach: results can be compared to those of similar groups of schools, regions or the national average. This approach is often used in large-scale comparative studies (cf. Cleaver et al., 2006; Ireland et al., 2006; Schulz et al., 2018; Ten Dam et al., 2011). An example of the analysis and interpretation of data in citizenship education is: *The school interprets and analyses data compared to a similar group of schools. This comparison may point out that the students of the initial school score, on average, substantially lower on the questionnaire than students of the comparison group. By zooming in on details using student background information, the school can pinpoint that boys scored lower than girls.*

Second, schools should *determine possible follow-up steps*. Based on how a school evaluates the brought-about change, the school can decide if, and if so, what follow-up steps need to be taken. The school can do so by looking at the curriculum (e.g., a topic of citizenship education is missing or not well developed in the current curriculum) or the learning process (e.g., the contents of the curriculum are in line with the learning objectives, but require (more) differentiation in the delivery at the student level). However, if the learning outcomes are not as expected, there is often no clear solution of what needs to be altered to change this. Thus far, there is no clear causal relationship between the characteristics of the curriculum and the learning outcomes. Other factors may influence learning outcomes, such as student characteristics or characteristics of parental upbringing. In this respect, Love (2000) states that extensive dialogue among school professionals should determine the possible follow-up steps. In this dialogue, sufficient time should be reserved, and the participants should focus on exploring possible assumptions and solutions before deciding on follow-up steps. An example of the determination of possible follow-up steps in citizenship education is: *The school adapts the*

curriculum so that boys and girls are more likely to benefit equally from the contents. The school does so by adding role-plays to the curriculum. Students practice by alternating roles and perspectives in matters concerning discrimination – including boys taking a female stand and vice versa. In addition, the school ensures more interaction between boys and girls in the role plays.

3 OUTPUT-DRIVEN CITIZENSHIP EDUCATION: CHANCES AND CHALLENGES

Based on these building blocks, we propose an output-driven model for citizenship education (Figure 1) derived from the output-driven approach applied for academic achievement (e.g., reading and arithmetic). This model has the potential to help school professionals adjust the curriculum contents of citizenship education to what students need, optimise educational outcomes at the group or school level, and improve the quality of citizenship education. However, the differences between educational outcomes such as arithmetic achievement and reading skills on the one hand, and educational outcomes such as social and civic outcomes on the other hand, require attention to determine whether the approach is possible in citizenship education. Hence, in this section, we draw attention to characteristics of citizenship education that require careful consideration when applying the model for an output-driven approach to citizenship education. These characteristics are the normative notion of citizenship, the quality and availability of measurement instruments to measure citizenship competences, and the young tradition of measuring citizenship competences within educational practice.

3.1 The normative notion of citizenship

The meaning of citizenship and what it entails requires theoretical and empirical attention because, at least to some extent, it is a normative (cf. Eidhof, Ten Dam, Dijkstra, & Van de Werfhorst, 2016) and, therefore, essentially contested concept (Westheimer & Kahne, 2004). In practice, the perceptions of what is considered citizenship vary across schools. Consequently, the same applies to the learning objectives of citizenship education (Dijkstra, Geijsel, Ledoux, Van der Veen, & Ten Dam, 2015). In this variety of perceptions of citizenship, a distinction can be made between consensus goals and contested goals (Eidhof et al., 2016). Consensus goals can be defined as general democratic, shared goals agreed upon in a democratic society, for example, equality and non-discrimination; they are typically codified in national constitutions and reflected in human rights documents. Contested goals, such as autonomy and obedience goals, are more specific and often disputed.

The normative notion of citizenship and the variety of perspectives on citizenship may lead to a situation in which the development of a vision and the specification of detailed learning objectives is considered complex and requires choices that schools feel insufficiently equipped for or reluctant to make. This may be especially true when schools struggle to fit citizenship education into what they value as a school or where the school

community is divided in this respect (for example, tensions may arise between autonomy and obedience to authority).

However, if clear learning objectives are lacking, it is not possible to measure to what extent the desired proficiency level has been achieved. In this respect, there seems to be a significant difference with, for example, reading and arithmetic, where learning objectives are usually simpler to objectify, and fewer school-specific choices are required. The absence of concrete learning objectives in citizenship education in many European countries (Eurydice, 2017) challenges an output-driven approach to citizenship education. While not neglecting this challenge, we use the remainder of this section to emphasise that the perceived normative notion of citizenship education may be more limited in scope than is often assumed and is not an insurmountable obstacle in an output-driven approach to citizenship education (Dijkstra, De la Motte, Ehren, et al., 2014).

Contrary to the idea that measuring student citizenship competences has substantial disadvantages or that it is difficult or even undesirable due to its normative nature (Biesta, 2009, 2017; Koretz, 2008; Rothstein, 2009), there is broad consensus in democratic societies about the main content of citizenship education, across different perspectives on society and in schools with varying value orientations (Van Goethem, Ten Dam, & Dijkstra, 2020). This provides a relevant point of departure for meaningful measurement of citizenship competences. The essence of this rationale is the *regula aurea* or Golden Rule (Wattles, 1996). This widely held ethic of reciprocity (i.e., to treat others as you would like others to treat you) is revealed in fundamental rights such as equality, non-violence and non-discrimination and defined in national constitutions and the Universal Declaration of Human Rights.

Such fundamental rights, together with democratic values and skills aimed at dealing with diversity and conflicting values, provide the point of departure for fundamental and universal moral teaching and can be considered a shared, central core of citizenship education (Sta. Maria, 2017; Van Goethem et al., 2020; Wattles, 1996). Although values may differ for specific themes and domains, and social tasks may be viewed differently by different people and contexts, many social tasks are broadly underwritten. As such, they enable consensus about what is morally right and socially effective in a particular situation (Schneider, Ackerman, & Kanfer, 1996). In addition, the underlying structure of social competences and the developmental processes regarding the formation of social competences is considered robust across cultures and phases of life (Halberstadt, Denham, & Dunsmore, 2001). Whereas this does not mean that there are no contested concepts and value differentiation in citizenship education, it does mean that a set of essential, broadly shared values is available in citizenship education. This can serve as a point of departure for formulating a vision and accompanying learning objectives.

Thus, although values of the school take a more prominent role in citizenship education than in, for example, reading and arithmetic, this does not necessarily lead to subjective assessments (Dijkstra et al., 2015). It is possible and meaningful to measure the fundamental values in citizenship education. This is underscored by large-scale

international quantitative measurements in which the wide-ranging perspectives on citizenship are usually formulated in terms of knowledge, skills and attitudes. Examples include the International Civic and Citizenship Study (ICCS) (Schulz et al., 2018) and the Citizenship Competences Questionnaire (CCQ) (Ten Dam et al., 2011). However, for themes and domains where value diversity prevails, such as the contested goals of citizenship education, criteria for assessment may require school-specific norms (Dijkstra, De la Motte, Ehren, et al., 2014), and a generic measurement instrument may be less suitable. This also entails that the school team takes extra steps in deliberating the school-specific norms for these themes, which could raise an additional challenge in implementing an output-driven approach to citizenship education.

3.2 Quality and availability of measurement instruments

To date, several measurement instruments for citizenship education have been developed. We have already noted the high-quality instruments developed within international contexts such as ICCS (Schulz et al., 2018) and national contexts, for example, the Citizenship Education Longitudinal Study (CELS) for the UK (Cleaver et al., 2006) and the CCQ in the Netherlands (Ten Dam et al., 2011). However, reliable and valid instruments to measure citizenship competences are not widely available to schools (Daas et al., 2016; Ledoux, Meijer, Van der Veen, & Breetvelt, 2013; Ten Dam et al., 2011). Most high-quality measurement instruments mentioned above are primarily used for research and policy purposes and are not available for schools to assess their education.

Although measuring citizenship competences is possible, it is not yet widely performed (Eurydice, 2017). One of the explanations could be the limited instruments available to schools and the fact that schools' interest in measuring citizenship competences is relatively new. The latter seems related to the perception that measuring social outcomes in education is complex or even undesired due to its normative notion. However, complete restraint from measurement in citizenship education may not be necessary because schools can monitor the results of citizenship competences independently (Peschar, Hooghoff, Dijkstra, & Ten Dam, 2010) and without absolute standards of what level of competence is considered 'sufficient'.

In fact, measurements of citizenship competences often use relative comparison (Cleaver et al., 2006; Ireland et al., 2006; Schulz et al., 2018; Ten Dam et al., 2011). Such benchmark-based approaches amount to interpreting the measurement outcomes in terms of the distribution of outcomes in a relevant comparison group, for example, by comparing groups of students and outcome differences between schools or countries. In addition, comparing results over time may also be helpful. In a benchmark-based approach, the point of departure is not so much an absolute standard based on the desired levels of proficiency but an evaluation based on the results achieved by other schools (or student groups or countries). Although this is not so much an indication of whether the level achieved is 'sufficient', it does explain how these results deviate from the learning

process outcomes in other – comparable – schools. Therefore, a relative standard shows if and how outcomes lag or compare favourably with expected results based on the group mean (and its distribution).

Thus, on the one hand, a relative standardisation based on a comparison over time or with a comparison group can be beneficial and, depending on the chosen benchmark, provide a better understanding of how much growth has been realised and how much future growth may be possible while considering school and student characteristics. However, on the other hand, the number of valid and reliable measurement instruments available to schools has been scarce for more than a decade. While this powerfully underscores the need to develop measurement instruments that can be used for school improvement, it also poses a significant challenge in implementing an output-driven approach to citizenship education.

3.3 The short tradition of measuring citizenship competences

Although socialisation is a central responsibility of education, many countries have only recently begun measurements in citizenship education (Eurydice, 2017; Organisation for Economic Co-operation and Development, 2007). More than a third of European countries do not specify national rules or recommendations for suitable classroom assessment methods where citizenship education is concerned (Eurydice, 2017), which implies that this needs to be specified at the school level. However, there is no generally accepted assessment practice. This means that schools to which this applies often only have a vague idea of the results of their citizenship education. Consequently, there is a limited basis for designing and developing a curriculum geared to the student's situation, often not based on valid and reliable data on student performance.

In addition to the challenges encountered when formulating a vision, the short tradition of measuring citizenship competences also comes with challenges of data literacy. School administrators, teachers, and others involved in the analysis of data on citizenship competences should possess data literacy, i.e., "the ability to transform information into actionable instructional knowledge and practices by collecting, analysing, and interpreting all types of data (assessment, school climate, behavioural, snapshot, longitudinal, moment-to-moment, etc.) to help determine instructional steps" (Mandinach & Gummer, 2016, p. 14). Data literacy comprises a combination of an understanding of data and standards, methodological knowledge and practices, curricular knowledge, pedagogical content knowledge and an understanding of how children learn (Mandinach & Gummer, 2016) as well as ethical and responsible use of data (e.g., on how to ensure student privacy) (Gummer & Mandinach, 2015).

Challenges of data literacy do not limit themselves to citizenship education: they are also known in measurements of, for example, reading and arithmetic achievement. However, data literacy requires even more attention in citizenship education because thinking in terms of civic outcomes is still relatively new to many schools. Moreover,

knowledge of measuring instruments is often lacking, and the dominant notion is still that citizenship education does not lend itself to results measurement. Sometimes, this notion is accompanied by the view that measuring citizenship competences is undesirable. Therefore, in addition to the general attention required for data literacy as a general condition for realising an output-driven approach, attention must also be paid to the schools' unfamiliarity with the possibilities and value of standardised assessment.

Thus, the caution and reluctance on the part of school professionals towards implementing new 'boosters of technology' in education (Shirley, 2011, p. 194), such as the use of data, is not limited to citizenship education but is also common in other parts of the curriculum. However, in reading and arithmetic, school professionals have a long tradition of measuring and monitoring student learning outcomes, for example, through student monitoring system software (Kamphuis & Moelands, 2005; Ledoux et al., 2009; Verhaeghe, Schildkamp, Luyten, & Valcke, 2015; Visscher & Ehren, 2011). Consequently, school professionals may be more used to analysing and interpreting student data in this part of the curriculum. For citizenship education, the relatively young tradition of measuring student citizenship competences may reinforce the caution about analysing and interpreting student data. This forms a challenge to implementing an output-driven approach to citizenship education. However, because most primary schools are familiar with data-driven approaches to measuring students' social and socio-emotional competences for a long time (cf. Durlak, Weissberg, Dymnicki, Taylor, & Schellinger, 2011), it may also be possible to move beyond the feeling of caution about the measurement of citizenship competences.

4 DISCUSSION

Whereas evaluating and improving education plays a crucial role in subjects that belong to the qualification function of education, it is less common in subjects that belong to the socialising function of education. This certainly applies to citizenship education, which has grown in importance in recent years. In fact, promoting active citizenship in education has become "one of the main objectives for education systems throughout Europe" (Eurydice, 2017, p. 7). In many cases, citizenship education can be characterised by a content-driven approach rather than an output-driven approach in which measurement outcomes are considered an essential aspect of good education.

This study theoretically reflected whether an output-driven approach could be fruitful and possible in citizenship education. Using literature on output-driven approaches in subjects like reading and arithmetic, we proposed an output-driven model for citizenship education. The five building blocks of the resulting citizenship education output-driven model are (1) the formulation of a vision; (2) setting clear learning objectives; (3) designing and implementing the curriculum according to these learning objectives; (4) measurement of the outcomes; and (5) evaluating whether the previous steps have led to the desired change. The last step consists of (5a) analysis and interpretation of the data and (5b) determination of possible necessary follow-up steps.

We conclude that the output-driven model provides a good point of departure for constructing an output-driven approach for citizenship education, provided that sufficient attention is paid to the distinctive and challenging characteristics of citizenship education. Several comments can be made in this context, the most important of which are summarised below.

Firstly, citizenship education consists of a normative notion, meaning that the vision and learning objectives (i.e., building blocks 1 and 2 in the output-driven model) may differ over schools and contexts. This marks an essential difference between citizenship education and education in reading and arithmetic since, in the latter, goals and levels of achievement are usually seen as relatively 'objective' and as the outcome of mainly functional, often academically oriented, considerations, which enable objective deliberation in the event of disagreements. Moreover, in the case of reading and arithmetic, detailed guidelines based on formal regulations or scientific knowledge are often available for determining the content and outcomes to be achieved. Currently, this is less true for the school's socialisation function. This is regularly perceived as an obstacle to measuring citizenship competences (i.e., step 4 in the output-driven model) and often leads to a reluctant attitude towards measuring in the socialisation domain of education. While not neglecting the normative notion of citizenship education, we believe it is also important to emphasise the broad consensus underlying the central goals and content of citizenship education. Most of the wide variety of content, methods, and interpersonal contacts in everyday citizenship education adhere to the principle of 'do to others as you would have them do to you' and fundamental democratic values and human rights, leading to a set of shared fundamental values. These shared fundamental values provide a solid base for the generic measurement of citizenship competences in an output-driven approach. However, an output-driven approach is more challenging for school-specific or contested goals (Eidhof et al., 2016) because it requires schools to think about what these values are, how the learning outcomes can be evaluated, and what is considered a 'sufficient' result.

Secondly, suitable measurement instruments for citizenship education are still being developed. Also, the schools' access to these instruments may differ between countries (i.e., step 4 in the output-driven model). Previous studies (Daas et al., 2016; Dijkstra, 2015; Peschar et al., 2010; Ten Dam et al., 2011), as well as large-scale international studies such as ICCS, CCQ and CELS, have shown that measuring citizenship competences is possible and meaningful if sufficient attention is paid to validity, reliability, and measurement aims. In the ideal situation, various standardised instruments are available for schools to measure student citizenship competences as part of an output-driven approach. The availability of such an instrument, however, is not a necessary condition for applying the output-driven model in citizenship education. While measurement instruments are being developed, schools can be assisted in adopting and using more low-key, standardised and non-standardised methods (such as teacher evaluations) and qualitative methods (such as rubrics, cf. Daas et al., 2016). Instruments that are not standardised or awaiting

standardisation, instruments constructed by the school or even teacher evaluations using set criteria and learning goals can also facilitate the evaluation of change in the output-driven model. Although a data-informed procedure is an important feature of the output-driven approach, a quality improvement effect can also be expected from the gradual switch from a content-driven approach to an output-driven approach. Working with concrete learning objectives and evaluating to what extent these have been achieved is essential as a first step. While developing standardised measurement instruments for citizenship competences in the long run, schools may use such alternative methods as temporary substitutes.

Regardless of the measurement instrument a school uses, understanding how learning outcomes in citizenship education can and cannot be interpreted is essential. For example, to date, there is too little known about how citizenship competences of students develop over the years. This means that it is not possible to track the learning outcomes of the same students over the years and interpret these in terms of progression. However, it is possible to compare students' learning outcomes to those of a relevant comparison group in each subsequent measurement. In this respect, previous studies have pointed to a 'dip' in citizenship competences of students in the lower grades of secondary education (Cleaver et al., 2006; Geboers, Geijsel, Admiraal, Jorgensen, & Ten Dam, 2015; Keating, Kerr, Benton, Mundy, & Lopes, 2010). While this decrease may have various underlying reasons, it is most informative to compare the citizenship competences of students in this exact grade to a comparison group because it accounts for the 'dip' in citizenship competences that is common for all students in this grade. The caution needed to interpret the learning outcomes rightfully forms an important challenge to an output-driven approach in citizenship education, not least because it requires school professionals to be familiar with how the results can and cannot be interpreted.

Thirdly, citizenship education is usually offered in projects and themes throughout the curriculum in many schools rather than in a separate course. As a result, many school professionals share responsibility for the quality of citizenship education (i.e., step 3 of the output-driven model). As is the case in many situations of shared responsibility, this leads to the question of who bears responsibility for evaluating and interpreting the findings and their translation into curriculum development (i.e., step 4 in the output-driven model). Organising the measurement, data analysis, and interpretation of student citizenship competences is one of the necessary steps. It requires explicit organisation, assigned responsibility and attention from the school management (Schildkamp & Poortman, 2015), certainly in a culture where thinking in terms of results and measuring outcomes is not self-evident. Moreover, it requires that those responsible for the quality of citizenship education understand how the measurement works, how the findings can be interpreted, know the measurement's limitations, and draw reasoned inferences about student achievement (Streifer, 2004). Ideally, this takes place in a school environment that ensures a positive focus on student measurement and conveys that the primary purpose of an output-driven approach is to contribute to continuous school improvement (Lachat, 2001).

In sum, an output-driven approach to citizenship education requires specific skills and devotion from school professionals and can therefore be challenging and demanding. Some common educational challenges that are not unique to citizenship education, such as dealing with data literacy, challenges in data analysis and interpretation and ways to deal with reluctance towards implementing new technological tools in education, may be especially demanding in the case of citizenship education, which does not have a specific place in the curriculum and where responsibilities are not demarcated.

Although we will not discuss this in more detail here, an output-driven approach may also contribute to educational accountability and provide a better understanding of the extent to which the intended goals are achieved (Ehren & Dijkstra, 2014). Generally speaking, educational accountability is important since education uses public funds to reach shared goals. This is even more relevant to citizenship education. Here, at its minimum, accountability focuses on understanding the results of education in the form of the students' social and citizenship competences and may also include the quality of the educational process and the curriculum content. However, because of the social relevance of citizenship education and its value-bound nature, public dialogue and accountability concerning goals and results are, too, eminently crucial in this area and can contribute to improving its quality (Ehren & Dijkstra, 2014). Although educational accountability is not the primary goal of an output-driven approach, stakeholders such as parents, the local community, and the government may be interested in the extent to which the aims and goals in citizenship education are achieved and how changes concerning the initial situation are evaluated. Moreover, the nature of citizenship education entails that commonly shared goals for citizenship education should be openly accounted for to enable public deliberation of precisely those goals. This contributes to transparency and provides information to those involved in citizenship education: students, their parents, policymakers, and society. This does not alter the fact that the primary user and addressee of the outcomes of an output-driven approach are schools, with the teachers and school management as the main target group, certainly when it comes to student and class level results. Considerations of accountability, as far as relevant, therefore primarily relate to the results at the school level.

To conclude, this study explored the applicability of an output-driven approach in citizenship education. The theoretical reflection in this study concludes that such an approach to citizenship education is possible and worthwhile and offers a fruitful step toward strengthening citizenship education and insights into student outcomes. The model of an output-driven approach presented in this study and the theoretical reflection of its challenges for citizenship education provides a basis for further development of the approach and its testing in educational practice. Together with developing and implementing the output-driven model in citizenship education, identifying its effects on the development of student citizenship competences and the development of the school curriculum in citizenship education ask for attention. An important limitation of the present study is that it primarily focused on how the school can improve citizenship

education. This makes the approach more suitable for countries where citizenship education is decentralised (i.e., the school determines what is considered 'sufficient' in citizenship competences). It makes it less ideal for countries where citizenship education is centralised mainly (i.e., schools need to conform to national norms). Nevertheless, a challenging road lies ahead: although an output-driven approach in the curriculum part focusing on qualification is increasingly being acknowledged in the literature and receives recognition in the field, there still seems to be a distance between expressed interests in output-driven approaches and the actual use of data in the context of school improvement (Geijsel, Krüger, & Sleegers, 2010), and this certainly applies to citizenship education, where more barriers must be overcome. However, our theoretical reflection of challenges and chances for using an output-driven approach in citizenship education shows a good point of departure.

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AUTHOR BIOGRAPHIES

Lianne Hoek is a PhD Candidate at the Research Institute of Child Development and Education at the University of Amsterdam, The Netherlands. Her research focuses on the measurement of social outcomes of education and output-driven citizenship education. E-mail: l.h.m.hoek@uva.nl.

Anke Munniksma is Assistant Professor at the Research Institute of Child Development and Education at the University of Amsterdam, The Netherlands. Her research focuses on the social development of youth in ethnically diverse societies. E-mail: a.munniksma@uva.nl.

Anne Bert Dijkstra is Program Director of the Education and Social Cohesion Program at the Inspectorate of Education in The Netherlands, and professor of Supervision and Effects of Socialisation in Education at the University of Amsterdam. His research focuses on school effectiveness and social outcomes of education. E-mail: a.b.dijkstra@uva.nl.