GROUP PROBLEM SOLVING AS CITIZENSHIP EDUCATION

Mainstream idea of participation revisited

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« La puissance publique ne peut même sur aucun objet, avoir le droit de faire enseigner des opinions comme des vérités ; elle ne doit imposer aucune croyance. »
(Sur l'instruction publique, premier mémoire, 1791, Condorcet)

Acknowledgements

When I arrived in the Netherlands in 2001, I started working as a volunteer in children's hospices intended to support terminally ill children and their families in the last phase of their lives. These houses had cost millions of euros. The founders of the hospices, the medical staff and volunteers, were wondering why these houses were not reaching their goals. Parents of children with a life-threatening disease used them as respite care for a weekend or a short vacation. When I started studying pedagogical sciences at the University of Utrecht and working for the University's website pedagogiek.net, I decided to write my first article on the pedagogical needs of families and terminally ill children. I read quite a lot of research on this topic and also on the educational problems, parents and siblings may face in this situation. The results of this literature research show that parents would rather have their children stay at home or in hospital during the last phase of their lives. Thus, the best response to their needs would be ambulatory medical and pedagogical help and not such houses. For me, this was an example that good intentions and ideals do not always hold the best answers to concrete problems and that being informed is one of the pillars of good practice. I started to become very interested in the relation between science and practice and in just how relevant informed practice is.

While I was working as a student assistant at the University of Utrecht, I became involved in discussions on education and the curriculum, including discussions on sustainable development and citizenship. The position of one of the professors I was working with was that primary students are unable to cope with complex societal issues. My problem was that empirical evidence did not support this statement. It was a conviction that some educationalists in the field of educational sciences held. I wanted to prove them wrong: there was some empirical research going on at the time that seemed to support my position. The numerous discussions I held about this topic laid the foundations for this dissertation. This thesis could not have been realised without people supporting the process.

I am really thankful to Willem Koops, my supervisor, who followed me on this journey and had faith in me while the dissertation was unfolding. I had no concrete plan for my dissertation when I started out, and as I became acquainted with the field of education for sustainable development and citizenship education, a multitude of issues was raised. Willem, you were

always encouraging me, giving me sharp comments, helping me with the organisation and structure of this thesis as well as the expert meeting. I also enjoyed our conversations about you, your work and your family. You had a lot of patience and faith in me and the project. This dissertation took me eight years to complete but of these eight years I was unable to work on it for more than two years. And you did not push me but were always understanding. I will certainly miss visiting you in your lovely office at the Dom in Utrecht.

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smiles and laughter helped me a lot. In any case it helped Marie to know what she did not want to do: “Work like yours, mama” and then Zoé: wondering what job she could choose later so that she could stay in pyjamas behind her computer the whole day just like I used to do. Akke and Minka, thank you for your precious involvement. You were always asking me about the progress of my thesis. How many times did I whatsapp: “These are really the lastlast comments”. “The veryveryvery last comments then”, you would answer. But more comments came.

The last grateful thanks go to my Piet, my husband, love of my life and best friend: who read this dissertation, made many comments. Sometimes I could be so angry with you and your comments… But each time I had to admit that you were right…

Chapter one - Introduction

In the late nineties of the last century, citizenship education has been made compulsory in several European countries, such as England, France, Spain, Portugal, Germany and the Netherlands. This rebirth of citizenship education was motivated by a growing concern about a perceived decline in political participation, especially among the young. Traditional civic education failed to stimulate this as it focuses too much on transmitting political knowledge (Niemi & Junn, 1998). Furthermore, the emergence of new democracies in Eastern Europe, the fall of the Wall, terrorist attacks and their threat, and radicalisation, led policy makers and part of the research community to consider citizenship education as urgent.

This concern - that the future of democracy is in jeopardy - can be found in a great number of articles, books and international reports on citizenship education (e.g. QCA, 1998; Galston, 2004; Schulz, Fraillon, Ainley, Losito & Kerr, 2008; Hoskins, Villalba, & Saisana, 2012; Hoskins, 2013). Examples of such arguments: "There are legitimate reasons to worry about the civic life of today's young adults. If we compare them with young adults of the past, we find evidence of diminished civic attachment." (Galston, 2004, p.2); "Western democracies appear to be fostering a non-participatory culture in their youth" (Hoskins, et al., 2012, p.3) and "...the limited interest and involvement of young generations in public and political life have stimulated renewed reflection on the meanings of citizenship and the roles of and approaches to civic and citizenship education" (Schulz et al., 2008, p.5). Hoskins (2013, p.25) even warns of the threat of dictatorship when schools fail to give enough attention to stimulating active citizenship and only concentrate on tests and preparing students for the economic world: "This move has dangers for the continuation of democracy and unless there is a desire to move towards a more authoritarian regime, action needs to be taken". In an attempt to resolve the perceived problem of declining participation in Europe, policy makers, and part of the research community working on citizenship education, choose to stimulate civil engagement, active participation and to instill values in students, thereby perceiving education as a means to attain such goals (Dudley & Gitelson, 2002; Westheimer & Kahne, 2004; Schultz et al., 2008, Eurydice, 2015). Because citizenship education has been made compulsory in many European countries it means that, according to policy makers, ideally all schools should implement this kind of citizenship. This will be referred to as the mainstream participatory approach to citizenship education.

In this theoretical study, first it will be argued that the mainstream

participatory approach has three kinds of constraints. The first one is a practical constraint: its lack of feasibility (chapter two). The second is a political constraint: it presupposes a specific idea of 'good citizenship' without justifying this (chapter three). The third one is a fundamental constraint: it aims at 'making' a certain kind of citizen and reducing the complexity of reality, consequently limiting students' autonomy (chapter four). Thereafter, an alternative approach will be developed, based on a deliberative democracy. This approach minimises the three constraints without completely avoiding them. It will be demonstrated how this alternative was chosen and it will be explained in detail why this alternative is feasible for schools (meeting the practical constraint), how it can be explicated and justified (meeting the political constraint), and how it develops students' autonomy instead of 'making' a certain kind of citizen in order to solve society's problems (meeting the fundamental constraint) (chapters five and six).

Several methods were used. This study is mainly theoretical and based on the analysis of documents and literature. Chapter five is an exception in this respect: here, the demands of some educational principles are discussed with a group of experts. This methodology will be described and justified at length. The theoretical chapters are based on the analysis of relevant documents and literature. In chapters two, three and four, this involves an analysis of comparative studies of Eurydice and International Civic and Citizenship Education Study (ICCS). These reflect European and national policies on citizenship education. As Kennedy (2008, p.6) puts it: "These frameworks can reflect either curriculum or assessment priorities and are indicators of what is regarded as important civic learning for students." Most interesting is the ICCS, conducted in 2009 in 38 countries and in 2016 in 24 countries, because it operationalises the intended notion of citizenship: active participation. This notion of active participation is also found in the Eurydice Report and in national policies in European countries, such as England, France or the Netherlands. The similarity between the ICCS, Euridyce and national policies is no surprise seeing as researchers working on the ICCS are often also involved in research and in advising policy makers about citizenship education in their countries of origin. For example, David Kerr, co-author of the theoretical framework, has worked as Director of the National Foundation for Educational Research (NFER) and as a member of the Citizenship Advisory Group (the 'Crick Group') that led to the Crick Report and the implementation of citizenship education in the UK. He has also evaluated citizenship education in England and has made various recommendations.

Research Questions

As already mentioned the goal of this theoretical study is to develop an alternative approach to citizenship education that meets the three constraints of the mainstream participatory approach to citizenship education.

Chapter two

(1) Is the mainstream participatory approach to citizenship education feasible?

Chapter two deals with the practical constraint (feasibility) of the mainstream participatory approach to citizenship education in educational policies. To identify this constraint, European policy research documents (Eurydice and ICCS) have been analysed. Four categories which, according to these documents, citizenship education should cover, will be theoretically and empirically assessed in relation to their feasibility: (a) political knowledge, (b) critical thinking, (c) values, attitudes and behaviours, and (d) active participation. This assessment is directed towards discussing the practical constraints citizenship education puts on the school, the curriculum and on teacher knowledge and skills. Empirical literature is used to assess the feasibility of this participatory approach. It is argued that this educational approach to citizenship education may be problematic because the combination of these aspects – political literacy and critical thinking and analytic skills and values, attitudes and behaviours, and active participation – places unrealistic demands on the curriculum, on head teachers and teachers.

Chapter three

(2) What kind of citizenship do policy makers stimulate and how do they justify their conception of citizenship? And if not, how can one choose a theoretical framework for justifying a conception of citizenship?

In this chapter, the political constraint is discussed. Each approach to citizenship education presupposes an assumption regarding what 'good citizenship' means and each approach ought to justify this and explicate the underlying theory of citizenship. For this reason, an analysis is undertaken to identify the kind of citizenship the main participatory approach promotes. Meanwhile, the ways in which this mainstream approach justifies its conception of citizenship will be explored. One of the problems of citizenship education is the diversity in opinions about citizenship. This diversity will be discussed using classifications of different citizenship theories. Such classifications can help to situate and articulate the kind of citizenship one aspires to. The drawbacks of using classifications will be considered. And it will be demonstrated how classifications of citizenship theories may be used as an effective tool.

Chapter four

(3) Does the mainstream participatory approach foster the development of autonomy? And if not, what kind of approach would be better?

The fourth chapter deals with the fundamental constraint: the risk of limiting, instead of fostering, the development of students' autonomy. The fundamental constraint will be discussed in terms of two shortcomings: strategic (reducing the complexity of reality) and educational ('making' a certain kind of citizen). The German discussion about education for sustainable development is explored. Education for sustainable development is a contemporary dimension of participatory citizenship education. The German discussion on sustainable development is interesting because of its criticism regarding the fundamental constraint. At the same time, in this discussion, several educationalists try to develop educational approaches that meet this constraint. Most of these attempts are not convincing, as will be shown. But one does seem almost adequate, that developed by Künzli (2007) and Bertschy (2007). It fosters students' autonomy by teaching them to think about issues relating to sustainable development, showing their complexity and meanwhile developing visions on them. This will be further researched.

Especially, two educational principles developed by Künzli and Bertschy are promising: connected learning and vision orientation. Connected learning entails viewing a subject from different angles and constructing relations among these perspectives and vision orientation is defined as developing hypotheses about the future regarding the issues students are dealing with. Künzli and Bertschy's approach will serve as the basis for the development of the alternative approach. Before embarking on such an undertaking an important hesitation needs to be considered: although Künzli and Bertschy's educational principles were implemented and used by teachers, the demands made on the cognitive capacities of primary students were not empirically well researched.

Chapter five

(4) Can primary students deal with complex societal problems?

In the previous chapter, it will be made clear that Künzli and Bertschy's approach to education for sustainable development offers a suitable framework for citizenship education, because it is feasible, and it also fosters the development of autonomy and takes into account the complexity of reality. Künzli and Bertschy's approach seems to be attractive for citizenship education. But it appears, at first sight, to be too demanding for primary students. Two of the educational principles of Künzli and Bertschy – connected learning and vision orientation – seemed to make specific demands on students' cognition and metacognition and were, therefore, further analysed in this regard. In other words, it was assessed whether these two educational principles are appropriate from a cognitive developmental perspective. A two-day meeting with international experts was organised to discuss the feasibility of these

two educational principles using two different learning activities developed by Künzli and Bertschy, together with teachers. Of these two educational principles, connected learning was judged as being within students' reach, whereas vision orientation was evaluated as being too complex. This means that vision orientation would need to be improved in order to be a viable approach, attainable for the category of students concerned.

Chapter six

(5) How can an epistemic theory of deliberative democracy be translated into learning activities?

A specific concept of citizenship will be chosen and justified. Democracy is in its essence collective decision making. In democracy, there are roughly two ways to organise such decision making: via aggregation (voting) and via deliberation (discussing), the latter being the most effective when it comes to enhancing the quality of the decisions made. Therefore, the deliberative theory of democracy is chosen as background theory. A consequence of deliberative democracy is that to make a significant contribution to collective decision making, citizens must be able to deliberate on all sorts of issues, to evaluate these, find solutions and ideally reach shared agreements (Goodin, 2008; Kymlicka, 2008). The core competence of citizens is group problem solving. *Within* the deliberative framework, an epistemic theory of deliberative democracy will be chosen and justified. It focuses on the quality of discussion among citizens, on the shared knowledge and the quality of the solution. The epistemic theory of deliberative democracy will then be translated to citizenship education. The theory leads to four educational principles, including connected learning. Next, general learning goals will be clarified giving further direction to the development of learning activities. The tasks must be sequenced and the problem-based learning approach can be used to structure group problem solving. Lastly, the criteria for choosing an appropriate subject will be defined. To illustrate all this, some learning activities will be described. The feasibility will be discussed briefly and it will be demonstrated that an epistemic theory of deliberative democracy translated into citizenship education, to a certain extent, meets not only the practical and the political constraints, but also the fundamental constraint.

Chapter seven

In this chapter, the most relevant outcomes of this theoretical study will be discussed in brief and limitations of the present study will be expounded.

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Chapter Two - Citizenship Education: The Feasibility of a Participative Approach[1]

The first author is responsible for the basic ideas as well as for all the draft versions. The first draft was discussed in depth with the two co-authors, who criticised the paper and proposed improvements.

Citizenship education should prepare and stimulate students to engage in political and social life (Eurydice 2005, 2012; Schulz et al., 2008; Schulz et al., 2010; Schulz, Ainley, & Fraillon, 2011). To do so, students should gain knowledge about political and social issues, learn to become critical thinkers, learn to exert certain kinds of values, attitudes and behaviours and learn how to engage actively in political and social life. Therefore, citizenship education should focus on teaching participation in and outside school. This educational goal and approach to citizenship education are advocated by the Eurydice reports (2005, 2012), by national policy documents in, for example, the Netherlands, England, Germany, U.S.A and also by many researchers in the field of citizenship education (e.g. Bron & Thijs, 2011; Citizenship Advisory Group, 1998; The Education and Skills Committee, 2007; Geisel et al., 2012; Schulz et al., 2008; Osler, 2011).

The International Civic and Citizenship Education Study (ICCS) is a comparative study which has researched the way citizenship education was implemented at school level and embodies just one concept of good citizenship. As Olson (2012) points out, the ICCS enables comparison between countries by setting criteria regarding the content and goals of citizenship education, but by doing so also takes a stance on the kind of democracy and the kind of citizenship such education should prepare for. In addition, this way of measuring citizenship education does not enable one to take into account the variation in the conceptualisation of citizenship existing among different countries, cities, towns and people. In other words, this conceptual uniformity comes at the expense of diversity (Olson, 2012).

Another of the European Commission's comparative studies are the Eurydice reports. They show that the participative approach to citizenship

[1] Chapter published: Guérin, L.J.F., Van der Ploeg, P.A., & Sins P.H.M. (2013). Citizenship education: the feasibility of a participative approach. *Educational Research*, *55,* 427-440.

education is the approach most frequently used in Europe. This means that schools usually are required to implement this, as, in most European countries, citizenship education is compulsory. Therefore, schools are held accountable for the way they implement the different aspects of citizenship education. The problem is that schools often do not know how to do this (Peshar et al., 2010). One solution, according to policy makers, is to give schools more support (Educational Council, 2012; Eurydice, 2012) and some countries have developed programmes to help schools implement and sustain a participative structure (Eurydice, 2012). Programmes that support schools should be clear about the kind of citizenship that is being implemented and should empower schools in such a way that they are able to implement and sustain each aspect that citizenship education must cover.

Besides the theoretical critique expounded in Olson (2012), there is also a more practical difficulty with this conceptualisation of citizenship education. One reason for not knowing how to implement such citizenship education could lie in the fact that each aspect that citizenship must cover is in itself complex or has certain drawbacks. Several researchers have pointed out the gap between policy demands and their implementation at school level (Bron & Thijs, 2011; Peterson & Knowles, 2011). In this chapter, we[2] answer the question whether this mainstream participatory approach to citizenship education is feasible. For each aspect that citizenship education must cover, the feasibility of the approach will be discussed.

Perspectives on citizenship education

This chapter problematises the participative approach to citizenship education, the mainstream perspective on citizenship education among policy makers and much of the research community on citizenship education. For this purpose, we will use, as examples, the following key documents: (1) the European Commission's Eurydice reports from 2005 and 2012 and (2) the International Civic and Citizenship Education Study (ICCS) conducted by the International Association for the Evaluation of Educational Achievement (IEA) in 2008-2009. The Eurydice reports are policy documents analysing the implementation of citizenship education in the national policies of European countries, whereas the ICCS research analyses the implementation of citizenship education at school level in Europe and other countries.

The goal of the Eurydice network is to analyse and compare national education systems and policies on various topics, to provide national governments with European analysis. The Eurydice reports are relevant because they analyse the way citizenship education is embedded in the curriculum of nearly 30 European countries, while promoting a certain

[2] "we" refers to myself and the co-authors of the article.

conception of citizenship and citizenship education. For the analysis, various questionnaires were developed, then sent out and answered by the different Eurydice Units. Official regulation documents or guidelines issued by national education authorities were also used. The analysis of national policy documents is relevant as these set the boundaries to how citizenship education must be implemented at school level in their country. In many countries, citizenship education is compulsory. In 2010, all countries belonging to the European Union signed a charter on Education for Democratic Citizenship and Human Rights Education which has been actively promoted throughout Europe since then. The charter states, among other things, that citizenship education should foster "*the readiness to take action in society*" (Council of Europe, 2010, p.9) namely, active citizenship, and citizenship education should embrace a "learning by doing" educational approach, namely a participative approach. The 2012 Eurydice report follows these ideas. At the same time, the European commission coordinating the Eurydice network supports further development of the concept of "active citizenship" through financing research such as the development of an instrument to measure active citizenship in Europe. The fact that the Council of Europe stimulates a certain vision of democracy, citizenship and citizenship education does not imply that national policies must necessarily follow them, but as the 2012 Eurydice report pointed out, more national policies seem to fully or partially endorse this vision of citizenship and citizenship education since the 2005 analysis report.

The other document to be problematised is the 2009 ICCS international survey conducted in 38 countries by IEA. IEA is a consortium of policy makers and researchers evaluating certain aspects of education worldwide, such as conducting and publishing comparative analyses of educational systems, analysing educational reforms, providing data that contribute to the monitoring and assessment at a national, European and international level. One of the co-funders of IEA is the European Commission who also funded, in 2009, the IEA's third evaluation of citizenship education since the first was undertaken in the nineteen seventies. According to the ICCS, the 1999 IEA Civic Education Study (CIVED), comparing the civic competences of 14-year-old students in 28 countries, had a profound influence on European and national policy development regarding citizenship education. Several countries, such as the UK, countries in the Asia-Pacific region or South-America re-analysed CIVED's data to draw conclusions for national policies or set out further research based on the questionnaire developed for the CIVED study (Schultz et al., 2008, p.7). For five years, IEA worked together with 20 countries on the development of an instrument to measure civic education competencies, used and modified by the ICCS. The ICCS is another good example of a dominant perspective on citizenship as it claims to "*Reflect contemporary research understandings of manifestations of civic and citizenship*

education in school students" (Schulz et al., 2008, p.11). Furthermore, the ICCS is interesting because it has operationalised the concept of citizenship and the different aspects citizenship education must cover. This means that the ICCS had to define and justify the different dimensions given to citizenship and citizenship education. Three ICCS research reports have been consulted: The ICCS Framework, Technical Report and International Results. The report mostly used is the ICCS Framework (Schutz et al., 2008).

According to the Eurydice reports, the goals of citizenship education are *"(a) developing political literacy (knowledge of basic facts and understanding of key concepts); (b) acquiring critical thinking and analytical skills; (c) developing certain values, attitudes and behaviours (sense of respect, tolerance, solidarity, etc.); (d) encouraging active participation and engagement at school and community levels."* (Eurydice, 2012, p.27). Therefore, citizenship education must cover these four categories. The documents will be critically evaluated in reference to the four aspects - knowledge, thinking skills, values and attitudes, and participation - that citizenship education has to cover. Schulz et al. (2008) give a different description of the aspects, as in their analysis is divided into three categories: content, affective-behaviour and cognitive domains. The cognitive domains equal Eurydice's first two categories, the affective-behaviour domain contains value beliefs, attitudes and behaviours and the content domains specify the content of the two other domains and include civic participation and identity. In the ICCS, the role of citizenship education in fostering participation is also seen as crucial. The major difference conceptually between the two is that the ICCS includes the notion of identity. Here, we will discuss the four categories similar to those both found in Eurydice and the ICCS and, therefore, exclude the notion of identity.

Developing political literacy

For both Eurydice and the ICCS, political literacy is broader than merely teaching an understanding of the political system and its institutions. In the 2012 Eurydice report, for example, social system, societal issues, European and international dimensions are the main themes (Eurydice, 2012, p.27, pp.30-32). Here, societal issues are taken to mean the concepts of: equity and justice, cultural diversity, tolerance and discrimination, sustainable development, national identity and belonging. Schulz et al. (2008, pp.16-22) and Schulz, Fraillon, and Ainley (2011, p.15) divide the content domain of citizenship education into four aspects: civic society and systems, civic principles, civic participation and civic identity. Themes such as globalisation, sustainable development, human rights, equity, freedom and social cohesion are included.

The consequences of this view, in terms of how schools should contribute to developing their students' political literacy, are twofold. Firstly,

it requires the development of an integrated curriculum, as these themes are not limited to one knowledge domain but involve the use of different kinds of knowledge, such as geography, sciences, mathematics and/or history. In addition, these themes deal with complex issues that can be controversial and require the organisation of cross-curricular activities. Secondly, teachers must possess the knowledge and skills required to teach such issues and the ability to challenge students to take different perspectives on them. This last aspect requires from teachers an elaborated epistemological knowledge, including insight into the limits of knowledge in various disciplines such as sciences, economy, history, and an understanding of what amounts to sound evidence in each of these disciplines, to teach students to understand the relevant knowledge relating to the issue.

For example, sustainable development is a very broad domain because it includes all possible topics and deals mainly with controversial issues (see Agenda 21 -http://www.un.org/esa/dsd/agenda21). Sustainable development puts normative constraints on the way issues have to be considered, analysed and discussed. One is asked to look at an issue and to consider the economic, social-cultural and ecological aspects in order to resolve it. It also has a temporal dimension: past-present-future. The future consequences of potential solutions must be scrutinised and the basic rights of future generations have to be taken into account. What these basic rights are is, however, not specified further than the broad idea of living a good life. Furthermore, this has a spatial dimension: local and global dimensions of the issue need to be considered. To understand an issue, students must connect a wide spectrum of knowledge (including history, geography, economics, mathematics), knowing what kind of stakeholders are dealing with the issue and what their interests and perspectives are. It also entails learning that a decision made to solve an issue should optimise these three aspects, as well as the temporal and spatial dimensions, and that it can also have unexpected effects. This can create new problems and lead to a search for new solutions. It is necessary for students to learn that sustainable development is not an ideal state that can be reached but is an idea about how society might deal with issues, from local to global (Künzli, 2007; Di Giulio, 2004).

Several empirical researches show that teachers lack the necessary specific knowledge of, for instance the economy, politics and even of government or European issues to teach these broad themes; they also lack knowledge of instructional strategies on how to deal with such complexities; or are simply not at ease to discuss controversial issues (Keating et al., 2009; Oulton et al., 2004; Osler, 2011). In the study by Oulton et al. (2004), for example, only 12% of the teachers felt adequately prepared to teach controversial issues, due to a lack of training and guidelines. Teachers also agreed that active pedagogical techniques were best to teach controversial

issues, but they did not all feel well prepared to apply these techniques. In the longitudinal study conducted by Keating et al. (2009), teachers also mentioned the fact that active pedagogical techniques were time-consuming activities. It is not only within citizenship education that teaching controversial issues is delicate, it seems that this problem has also been acknowledged to be an issue in science education. Literature exists emphasising the fact that most science teachers, for instance, are not at ease in teaching socio-scientific controversial issues due to, on the one hand, a lack of knowledge and on the other a lack of educational approaches (Day & Brice, 2011).

A negative consequence of the lack of an integrated curriculum and well-equipped teachers could be that complex issues are dealt with on a superficial level, potentially giving rise to the adoption of naive beliefs about how to deal with and solve such issues. For example, when dealing with issues regarding sustainable development, such as climate change, the pitfall of limiting teaching to the micro level, i.e. reducing one's ecological footprint or adopting good ecological behaviour, should be avoided. Solutions to many ecological problems, such as climate change or social problems, are only found at a macro level: new regulations and new technologies (Brunel, 2005; Kyburz-Graber et al., 1997). Helping students discern what can be solved at a micro level and what at a macro level, seems to be necessary. One aim of citizenship education should be getting students acquainted step by step with the complexity and controversy of different kinds of issues and learning how to deal with them. This means providing teachers with the professional support and tools needed to teach such controversial themes. Giving students a realistic view, we would argue, also involves teaching them that some issues require time, effort and the application of thinking skills.

Acquiring critical thinking and analytical skills

According to the Eurydice reports (2012), critical thinking and analysing skills are crucial to understand political and social issues; for the ICCS (Schulz et al., 2008), reasoning and analytical thinking skills are relevant for the same reasons and encompass skills such as: interpreting information, justifying, solving problems, evaluating. These thinking skills are the ones generally used to define critical thinking skills, even if in critical thinking research there is no consensus on a definition (Kuncel, 2011).

A great deal of research has taken place on how to foster students' critical thinking (Abrami et al., 2008; Kek & Huisjer, 2011; Papastephanou & Angeli, 2007; Halpern, 1999, Butler et al., 2012; van Gelden, 2005; Kuhn, 1999; Kuncel, 2011; Bailin et al., 1999). One common conclusion arising from these studies is that these thinking skills are hard to learn. One reason for this difficulty relates to several thinking biases that distort thinking, such as prior knowledge and beliefs (of an epistemological, religious or moral

nature), that can hinder taking alternative perspectives or evaluating sound evidence (Kuhn & Udell, 2003; van Gelden, 2005; Stanovich & West, 2007; Marques, 2012). Another reason is that these thinking skills require cognitive effort (Halpern, 1998; Kuhn & Udell, 2003): various thinking skills have to be coordinated, accompanied by simultaneous reflection on how and what one is thinking. Research on critical thinking demonstrates that its teaching requires continuous educational effort and does not always yield good results (Abrami et al., 2008; Cotter & Tally, 2009; Halpern, 1998; van Gelder, 2005). A meta-analysis is conducted by Abrami et al. (2008, p.1119) shows disparity and consolidates this concern: "The data (161 effect sizes from 117 studies, including 27 true experiments) suggest a generally positive effect of instruction on students' CT skills. However, the findings are not uniformly positive, and we found some evidence of negative effects." Critical thinking skills are context-sensitive, and transfer does not occur automatically (Halpern, 1999; Marin & Halpern, 2011; Halpern et al., 2012; Butler et al., 2012; Willingham, 2007). The training of these thinking skills within each subject and also through cross-curricular activities is required (Halpern, 1999). Halpern (1999) argues in favour of cross-curricular educational practices because, often, teachers are more focused on teaching content knowledge than working on enhancing critical thinking skills. What complicates the matter for citizenship education is that the themes are, by nature, complex. This has far-reaching consequences for current curricula and teachers' expertise. Based on our exploration of the research on critical thinking and rationality, we would argue that in order to teach critical thinking skills, teachers and schools:

1. Have to be sure that teachers themselves master these critical thinking skills and possess the required knowledge and pedagogic background to teach them.
2. Have to exercise explicitly these thinking skills in each subject domain and in cross-curricular activities in order to cultivate them and enable transfer.
3. Have to create a school culture that values such thinking skills.
4. Have to ensure that students possess enough knowledge in order to be able to reason on different kinds of issues.
5. Have to ensure that students and teachers possess an elaborate epistemological understanding.

One could argue that training critical thinking skills is something that school does already. Marin and Halpern (2010) discuss two interesting studies conducted in 1997 by Paul, Elder and Bartell and in 1999 by Thomas. In the Paul et al. (1997) research, teachers were interviewed about their conception of critical thinking and were requested to specify it. Teachers were also asked

if they were stimulating critical thinking in their classes. 89% claimed that critical thinking was one of their main goals, but only 19% could give a clear definition of critical thinking and based on the teachers' answers only 9% were teaching it daily. Thomas (1999) repeated this research and included observations. The results of Thomas' study confirmed those of Paul, Elder and Bartell. This means that regarding critical thinking, teachers and schools may well think they are working on improving these skills while actually they are not, or not entirely so. This can be due to a conceptual difference between teachers' conception of critical thinking and that of the experts. But even if this explanation is feasible, it still indicates that teachers are missing some aspects of critical thinking that experts consider relevant. Programmes have been developed to help schools and teachers implement a structure that fosters critical thinking skills (e.g. www.criticalthinking.org).

Teaching critical thinking skills requires effort on the part of both teachers and students. As participation is considered the best route to active citizenship, policy makers and researchers on citizenship education might tend to underestimate the effort required of schools and teachers, when learning how to think critically is considered as essential.

Developing values, attitudes and behaviours

Here we will explore the demands that developing values and attitudes put on the curricula and on teachers' expertise. The problem encountered is that the lack of conceptual clarity about what values and attitudes actually are, makes it difficult to understand what kind of expertise teachers need to possess and what kind of educational practices might foster these. For policy makers and researchers on citizenship education, knowledge and critical thinking abilities are in themselves not enough to stimulate the readiness to actively engage in political, civic and civil processes. These are even seen as "*passive activity*" (Eurydice, 2005, p.23). Citizenship education must also aim at producing a certain kind of citizen through transmitting certain kinds of values and attitudes. Values are seen as relevant factors in influencing behaviour (Schulz et al., 2008, p.22). The Eurydice reports give no definition of values and attitudes but do provide clues as to what these might be, such as: "*respect and mutual understanding, social and moral responsibilities, and … a spirit of solidarity with others*" (Eurydice, 2012, p.28). For an analysis, these descriptions are too vague and diverse. Furthermore, no conceptual distinctions are made between values, attitudes and behaviour. The latter relates to exhibiting behaviour consistent with values and attitudes held.

For our analysis of values and attitudes, we will take the ICCS definition as it is more precise. The ICCS defines values as a stable set of beliefs profoundly anchored in ourselves: "*Value beliefs can be defined as beliefs about the worth of concepts, institutions, people, and/or ideas. Value beliefs are different*

from attitudes insofar as they are more constant over time, deeply rooted, and representative of broader and more fundamental beliefs." (Schulz et al., 2008, p.22). The domains of value beliefs are beliefs in democratic and citizenship values which, according to the ICCS, influence attitudes and behaviours. Whereas attitudes are defined as "*states of mind or feelings*" (Schulz et al., 2008, p.23) towards an attitude object, they are less stable, and a person can hold conflicting attitudes. The way attitudes are defined and operationalised means that they in fact equate to beliefs. Attitudes are divided into three categories: (1) beliefs concerning rights and responsibilities, (2) beliefs concerning institutions and (3) self-cognition about civics and citizenship.

Now, the questions to be raised are: (1) what is the qualitative difference between value beliefs and attitudes since both concepts are defined and operationalised as beliefs and (2) to what extent do these two differ as to their stability and strength? Importantly: what empirical evidence is there for this conceptual distinction and for their stability? The ICCS gives no answer to these questions. Even theoretically, the distinction made by the ICCS is not grounded. The only reference made in order to justify the definition of values is taken from Rokaech (1973) who defines 'value' as: "*An enduring belief that a specific mode of conduct or end- state of existence is personally or socially preferable to an opposite or converse mode of conduct or end-state of existence*." (Schulz et al., 2008, p.22). There is also no justification of the way attitude is defined, although there has been quite a lot of research done on attitudes in general and, specifically, on political attitudes. Visser and Cooper (2007) listed some 50.000 articles, books, book chapters and dissertations on the subject of attitudes, published over the past hundred years. In the field of social psychology and political sciences, there also have been a number of discussions on the nature of attitudes and how attitude strength can be theorised and measured. Attitude strength is a multidimensional concept influenced by various factors such as accessibility, importance, ambivalence, extremity, knowledge and intensity, to name a few (Miller & Peterson, 2004; Visser, Krosnick & Simmons, 2004; Visser, Bizer & Krosnik, 2006). In persuasion theories of attitude for example, people may hold stable and strong attitudes. In constructivist theory of attitude, people do not hold strong attitudes because, according to this theory, attitudes are always formed on the spot (Schwartz, 2007). Therefore, affirming that values are stronger than attitudes would require defining the factors accounting for the difference in strength and the variation in strength between and within the two concepts. Such discussions and justifications are lacking in the ICCS documents. Because of the lack of a theoretical framework, it is difficult to map out exactly what is asked of citizenship education and how teachers can be prepared for this aspect of citizenship education using empirical literature.

Encouraging active participation

The role of participation has a special position in citizenship education as it is both an educational strategy and an educational goal. It enables students to experience citizenship and it fosters future participation (Eurydice 2005, pp.7-10, p.23, p.60; Eurydice, 2012, pp.7-11, p.59; Schulz et al., 2008, p.7, p.35). The Eurydice reports (2005, p.23; 2012, p.28) mention that participation enables students to put whatever knowledge, thinking skills, values, attitudes and behaviours they have learned into practice. Participation should be organised at two levels: within school through student councils and other forms of students' involvement in decision-making and in the broader community through community service or other projects. Experiencing participation can help develop a sense of commitment to civic and civil behaviour (Eurydice, 2005, p.23). The ICCS (Schultz et al., 2010, p.115) points out that civic engagement is a complex process influenced by many factors. Even though both Eurydice and the ICCS are cautious on some points regarding the effect of active participation, it is still seen as the main path towards shaping and influencing political and social values, attitudes and behaviours, now and in the future. Let us consider two objections to this idea and one practical problem.

The first objection deals with the difference between participating in a school context and participating in political and social society in the long term. Eurydice and the ICCS seem to assume a resemblance between participating in and outside school and in society. This means that the political and social experiences students will have within an educational context equate or at least closely resemble those they will be confronted with as adults. We argue that this is not the case in view of the educational context these projects are conducted in. The educational context may indeed motivate students' participation in this particular context but motivation to participate now does not necessarily imply participation later on, in other contexts. There is discontinuity in the context the task is taking place. For example, participation within an educational context, even when this involves projects outside schools, is pedagogically framed. The projects have to be ones that students can handle, with defined learning goals and requiring a specific educational organisation. The subject of participation that adults will have to deal with later on, is not framed. At school, students have time to work on these projects and teachers have time to supervise their advancement. Once they are adults, in order to participate they have to allocate an amount of their time and this implies a trade-off. This trade-off could be defined as follows: investing more time for the community means spending less time with one's own family, friends or having less time for professional development (Brennan & Lomasky, 2006). This aspect could lead adults to consider limiting their

engagement in political and societal processes, besides other aspects such as interest, expected benefit, the local context that might or might not motivate them to participate (Kymlicka, 2002). It seems that a similar discontinuity, is also present in Keating, Benton and Kerr's (2011) observation that an intention to participate in voting does not mean actually doing so: "However, it should be noted that there is often a considerable gap between voting intentions and actual turnout, and indeed, although 75% of the CELS cohort indicated in 2009 that they would probably or definitely vote in general elections in the future, the British Election Study estimated that only 49% of 18–25-year-olds (in the UK population as a whole) actually voted in the 2010 general election" (Keating, Benton & Kerr, 2011, p.227). Moreover, the interests at stake in such projects and the nature of the relation among students, teachers, head teachers and the outside community are quite different to those which students will have to deal with in adulthood. The same applies to students' participation within school, the context where students build their participative experience by participating in councils, stays within an educational frame.

Furthermore, longitudinal research in England shows that students are less positive about their empowerment and its reach when participating within school than are teachers and head teachers (Keating et al., 2009). This research also reveals that the participation of English students remained low throughout the six years despite increasing participative opportunities at school. In addition to that, the context of the school is only a small part of the environment where students learn about citizenship. As Biesta, Lawy and Kelly (2009) point out, students learn and experience citizenship in their everyday life: in their homes, with their peers and during their activities. These extra-curricular experiences also shape their idea of citizenship and will also influence their future potential participation. This last point brings us to the second objection.

The second objection deals with the intended effect of participation on students' citizenship. As noted by several researchers (e.g. Kerr, 2005; McIntosh & Youniss, 2010; Biesta, Lawy & Kelly, 2009) political and social engagement is a complex process influenced by a multitude of factors. Regarding the effect of participation on students' citizenship, research yields inadequate results. A meta-analysis by Conway, Amel and Erwin (2009) measured the effects of service learning on academic, personal, social and citizenship outcomes. Citizenship outcomes were divided into three categories: personally responsible, participatory and justice-oriented citizenship. Within these three categories, outcomes were measured in terms of actual behaviour (frequency of volunteering), beliefs (about volunteering) and commitments or intentions towards volunteering. The effect of service learning found in citizenship was the smallest ($d = .17$) in comparison to academic, personal and social outcomes. To complicate the picture, students also hold perceptions

about what kinds of participation are relevant. Metzger and Smetana (2009) found that taking part in political activity such as voting was treated by adolescents as conventional in terms of justification and perceived as more important than community service which was treated as more moral in terms of justification. As noted earlier, students' view of citizenship is not formed only at school (Biesta, et al., 2009). Background factors such as SES are still considered important factors contributing to citizenship outcomes. In brief, the potential outcomes of a participative approach to citizenship education on students' citizenship are not conclusive.

The last problem deals with implementing and sustaining a participative structure in schools. Keating et al. (2009) show that it is not an easy task, the challenges faced by English schools are: "Forging strong links with the local community and the wider world; Linking citizenship learning inside and outside the classroom; Engaging students; Democratising school culture" (Keating et al., 2009, p.55). Participation, in England, remains a school-centred activity and even at this school level the organisation of participation is no easy task, as the skills and knowledge of head teachers, teachers and students may be insufficiently developed for the decision-making process. This is also the case in the Netherlands where schools need external support to implement such structures (Onderwijsraad, 2012). Even highly motivated Dutch schools experience this lack of competencies (Peshar et al., 2010). The fact that in different European countries, programmes have been developed to help schools implement and sustain such participative structures substantiates the idea that it remains a challenging task for schools (Eurydice, 2012). The Eurydice analysis indicates that student councils suffer from a lack of empowerment, limiting their role to a consulting one. Furthermore, participating in students' council is not always perceived positively among English students (Keating et al., 2009). Lastly, schools must into account students' changing citizenship practices during their adolescence (Keating, Benton, & Kerr, 2011). Here again, schools' lack of time, expertise and budget can be challenging for the implementation of participative activities outside and within the school.

Concluding discussion

The aim of this chapter was to critically evaluate, theoretically and empirically, the mainstream conceptualisation of citizenship education. The objects of criticism were the 2005 and 2012 Eurydice reports and the 2009 international studies of the International Civic and Citizenship Education Study (ICCS). The documents state that citizenship education should not be limited to merely providing an understanding of political systems but should focus on fostering active participation in communities within and outside school. Citizenship education must encompass knowledge on political and societal issues, critical

thinking skills, values, attitudes and behaviour and active participation. In this concept of citizenship education, active participation has a special status, as it is seen as a goal for citizenship education, as well as an effective educational approach. We argue that there are three kinds of drawbacks: citizenship education can lead to a superficial implementation due to a lack of expertise on the part of teachers and head teachers, time and budget constraints and an overcrowded curriculum.

For the first aspect, knowledge, it was concluded that what students should learn in order to fulfil the intended goals, varies from knowledge about political systems to political concepts such as equity, freedom, to sustainable development, human rights and all kinds of socially relevant issues. Each of these domains is broad and complex and some evidence suggests that teachers often lack the knowledge to teach these issues and do not have the time to cover them all (Keating et al., 2009). Regarding critical thinking, it was argued that such thinking skills are very hard to learn, as they require a lot of teaching effort and exercise. They are hard to acquire because of thinking biases and the cognitive effort required of students to put them in practice (Kahneman, 2003). For the aspect of value and attitudes, it was believed that their conceptualisation was lacking, both theoretically and empirically, making an analysis of the intended educational goals and content unviable.

Active participation has a special status in citizenship education as it is defined both as an educational goal and an educational approach. We criticise the educational goal of active participation because of the pedagogical optimism as to its long-term effects: namely that experiencing participation at school shapes future participative behaviour. This presupposes continuity in behaviour learned now and behaviour displayed in the future (Oelkers, 1984, 1990). The reasons to participate, later, in political and social life are complex and can be influenced by a multitude of factors (Torney-Purta & Amadeo, 2010). Regarding participation as an educational approach, implementing and sustaining it at school is time consuming, demands a certain kind of expertise from teachers, head teachers and students and requires strong leadership (Keating et al., 2009; Eurydice, 2012). Schools are facing a challenging situation that can lead to making choices as to which aspects citizenship education should cover. This is due to the tension between, on the one hand, the broad range of skills, attitudes and behaviours citizenship education must cover and, on the other hand, the time and budget available to schools to implement and carry it out, the overcrowded curriculum and lastly the available expertise to do so. Without the necessary and adequate teacher and headteacher training, expertise, and support needed to implement such a participatory structure, its feasibility is in question. This also implies that governments should act as active agents in fostering initial and on-going teacher education, research and development, pedagogy and school governance, if they intend to implement the advocated approach to citizenship education in earnest.

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Chapter Three - Hidden curriculum: justifying theories of citizenship in citizenship education[3]

European Eurydice policy and ICCS convey a specific idea of what makes a good citizen, a particular view on how citizens should relate to each other, the state and the environment. In other words, such policy documents use certain theories of democracy and citizenship. But they remain vague about the fundamental assumptions of these theories (Hedtke, 2013; Zimenkova, 2013). As Kennedy (2008) stresses: "all nation states promote a citizenship curriculum, its function, purpose and content will be largely determined by the ideology that drives it" (p.12). According to Peterson (2009), policy makers are mostly republican orientated, whereas Van der Ploeg (2015) analyses this as a mixture of republicanism and liberalism. When policy makers, and numerous researchers advocating the mainstream participatory approach to citizenship education, explain or discuss its connection to a specific theory of citizenship, this is carried out in a rather superficial way. For example, in the ICCS reports, democracy is defined as "rule by the people", for the sole reason that this is the broadest way democracy can be conceived (Schultz et al., 2009, p.17). However, what is meant by "the people" or "rule" is not explained further. Moreover, no connection to their conception of what a good citizen ought to be is made. Failing to explain such a connection in policies results in a hidden agenda. This hidden objective of the curriculum limits students' autonomy: they are familiarised with only one kind of democracy and one conception of good citizenship (Van der Ploeg & Guérin, 2016).

Clarifying such a framework is relevant for two reasons. First of all, as Künzli (2006) and Van der Ploeg and Guérin (2016) argue: the political conceptions communicated in the curriculum need to become the object of the students' reflection and evaluation with regard to their autonomy. Secondly, clarifying the framework of democracy chosen for citizenship education, enables one to define and justify the choice of learning goals, the kind of civic capacities students should exercise, as well as the most appropriate pedagogical approach (Peterson, 2009; Parker, 2006, 2010; Hanson & Howe,

[3] Part of this chapter has been published: Guérin, L.J.F. (2017). Group problem solving as a different participatory approach to Citizenship Education. Journal of Social Sciences Education, 2, 8-18.

2011). Hidden curriculum occurs in education such as citizenship education, when the theoretical framework used to give direction to the curriculum, is not discussed and justified: "Ideology is not always immediately apparent in citizenship curriculum documents. It can be easily overlooked without a deeper examination of the theory behind the recommended practice" (Kennedy, 2008, p.11). Citizenship education is a political ideal and as such must be explicated for teachers to be able to judge it and make well-founded choices. Seldom does a policy maker or researcher openly discuss such a theoretical framework. A good example of this hidden curriculum is the Crick report released in 1998 by the Curriculum Authorities, describing the kind of citizenship education to be made compulsory. A few years later, Crick (2007) acknowledges that civic republicanism was the theory underlying this citizenship education.

The central questions in this chapter are: *What kind of citizenship do policy makers stimulate and how do they justify their conception of citizenship? And if not, how can one choose a theoretical framework for justifying a conception of citizenship?*

Firstly, the theoretical framework of the mainstream participatory approach, advocated by many policy makers and researchers, will be critically analysed and questioned. For this purpose, the 2009 and 2016 ICCS and Eurydice reports will be analysed. The ICCS recognise the existence of an ongoing discussion about citizenship but dismiss this discussion by arguing that its own definition is very broad. However, it still chooses a specific idea of citizenship when it comes to its operationalisation. Secondly, the kind of justifications used by policy makers and researchers to support the mainstream participatory approach to citizenship education, will be analysed. This will be illustrated using the justifications of Eidhof, ten Dam, Dijkstra and Westhof (2016) and Hoskins (2013). The work of these researchers plays an influential role in Dutch policy and also in European policy. Eidhof et al. (2016) acknowledge the diversity within citizenship education but claim that there is a consensus at a general level. Hoskins (2013) attempts to justify the theory of citizenship she used in developing the Civic Competence Composite Indicator (CCCI), an instrument to measure the civic competences of youth across Europe for the European Council. Hoskins acknowledges there are different theories of citizenship and erroneously integrates all of them. Thirdly, it will be explored whether a classification of citizenship theories can be useful in choosing a theoretical framework for citizenship education. For this purpose, two different classifications will be discussed, one developed by Kymlicka and Norman (1994) and the other by Abowitch and Harnisch (2006). It will be demonstrated that such classifications are not detailed enough to be used as a framework for a translation into citizenship education. Lastly, it will be investigated whether choosing and justifying a specific theory of democracy and citizenship is a more effective strategy.

Eurydice and ICCS: hidden curriculum

In the policy documents of a European comparative study of policies, Eurydice (2005, 2012), there is no justification or discussion of the kind of democracy citizens should be aiming towards. The only statement the Eurydice makes in this respect is that they should be active citizens, engaging in the community. This resembles the idea conveyed by the international comparative study ICCS. The ICCS is more precise about it because of its measurement purposes. As Eurydice refers to the ICCS, I will focus on an analysis of the ICCS. When discussing its theoretical framework, the ICCS acknowledges the lack of consensus regarding some of their key concepts: "Note that the exact definitions of many of the terms used in the framework are the subject of ongoing and vigorous academic dialogue." (Schultz et al. 2009, p.15). The ICCS is ambiguous, acknowledging, on the one hand, that there is an ongoing discussion and, on the other hand, not positioning itself regarding this ongoing debate. In order to understand the kind of good citizenship hidden in the ICCS, three reports will be analysed: the theoretical frameworks of 2009 and 2016 and the technical report of 2009 (there is, as yet, no technical report of the new cohort). The definitions given of democracy, civic participation and community participation in these reports will be analysed.

As already mentioned in chapter two, in order to measure citizenship competences in students, ICCS has defined three dimensions which are, in turn, split up into various domains. The first dimension is the content, the second the attitude-behaviour dimension and the last the cognitive dimension. For each dimension, certain domains, and possibly sub-domains, aspects and key concepts have been defined. For example, the cognitive dimension has been split into two domains: knowing and reasoning/analysing. For each domain, key concepts have been defined. For instance, for 'knowing', key concepts are: "defined, described and illustrated with examples" (Schultz, et al., 2009, p.27). Sub-domains and aspects are not always needed per dimension, but key concepts are always defined.

Of interest are therefore the definitions of the key concepts within the content domain, as well as certain questions posed in the cognitive tests, illustrating what is being measured: motivation for participation. The coding guideline used to analyse students' responses is especially relevant. Such an analysis can reveal the underlying ideas of democracy and good citizenship the ICCS is conveying and also the kind of citizenship practice it stimulates. I was unable to obtain the coding scheme used for the cognitive tests, as these are not disclosed. This limits the analysis of the coding guidelines of the items mentioned in the framework, as well as the technical report and their coding guidelines for the answers. In the analysis of the definitions, the 2009 framework will be compared with that of 2016. The reason for this

comparison is to check whether there were any theoretical changes in the kind of citizenship ICCS is stimulating.

The content domain is of particular interest because key concepts such as democracy or civic participation are defined here. In the content dimension and the civic society domain and systems, the term democracy is defined as follows:

> The ICCS assessment framework accepts the broadest definition of democracy as "rule by the people." This definition refers both to democracy as a system of governance and to the principles of freedom, equity, and social cohesion that underpin democratic systems and guarantee respect for and promotion of human rights. Both representative democratic systems (such as national parliaments) and direct democratic systems (such as those in some local community or school organizations) can be examined as democratic systems under the definition of democracy used in this framework. (Schultz et al., 2009, p.17)

In 2016, the same definition of democracy is used, but "social cohesion" has now been replaced by "a sense of community". In both 2009 and 2016, ICCS claims to use the broadest definition of democracy: "rule by the people". Three principles underlie this wide definition: "freedom", "equity" and "social cohesion", for the 2009 version, and "freedom", "equity", "sense of community" and "rule of the law" for the 2016 version. "Freedom" and "equity" (defined the same in both the 2009 and the 2016 versions) are defined vaguely and lean heavily on the United Nations Universal Declaration of Human Rights. The goal of "equity" is to "achieve peace, harmony and productivity within and among communities" by protecting the right to "fair and just treatment" (p.19, 2009). Democracy should also protect the freedom of citizens, namely, their freedom of speech, from fear and want. "Rule of the law" means that citizens are required to respect the law.

The meaning of freedom and equity is a subject of ongoing debate among political philosophers and scientists. Freedom and equity can be interpreted in different ways, for instance depending on whether they originate from more liberal or more republican views on democracy and citizenship. Kymlicka (2002, p.53), for example, stressed that: "If we are to treat people as equal, we must protect them in their possession of certain rights and certain liberties. But which rights and which liberties? Most of the political philosophy written in the last thirty years has focused on these questions." The ICCS chose a certain kind of rights and liberties without justifying this choice and without explicitly positioning itself within this debate.

The last principle "social cohesion" found in the 2009 version,

is advocated by a specific current within the theory of citizenship: social cohesion is mainly advocated by proponents of a 'civil society' theory of citizenship. Social cohesion as a goal of citizenship education leads to a focus on enhancing social competencies, such as solidarity and loyalty. The problem here is that, depending on the level on which social cohesion is sought, i.e. international, national, the level of neighbourhoods, or within the community, social cohesion will be defined and stimulated in different ways (Van der Ploeg, 2013). These three principles ("freedom", "equity" and "social cohesion") are defined as three sub-domains within the content domain 2 "Civic principles" for the 2009 version. Replacing "social cohesion" by "a sense of community" might be seen as a sensible change, as "sense of community" seems less normative and problematic. Society can be seen as a community. "Social cohesion" leads to developing specific competencies, as it requires for citizens to develop mutual ties, whereas developing a "sense of community" might lead to developing a consciousness of what community means. A "Sense of community" seems more open than "social cohesion", but still focuses on stimulating social ties between citizens, as further defined. In 2009, ICCS gives the following definition of "social cohesion":

> *Social cohesion* focuses on the sense of belonging, connectedness, and common vision that exists amongst the individuals and communities within a society. When social cohesion is strong, there is active appreciation and celebration of the diversity of individuals and communities that comprise a society. It is acknowledged (in regard to this sub-domain) that manifestations of social cohesion vary between societies, that there may be tensions within societies between social cohesion and diversity of views and actions, and that the resolution of these tensions is an ongoing area of debate within many societies. (p.17)

Social cohesion has to be encouraged, according to ICCS, as it is only when social cohesion is achieved that communities can live in peace and that citizenship is fulfilled. In the 2016 framework, even though "social cohesion" has been replaced by "a sense of community", the definition remains largely the same. The additional text and further changes have been highlighted in italics:

> The sub-domain *Sense of community* is related to the sense of belonging and connectedness within societies and focuses on *collective responsibility* and common vision that exists amongst the individuals and communities within a

> society. When a strong *sense of community* exists individuals actively appreciate and acknowledge the diversity of individuals and communities that comprise a society *as well as demonstrate responsibility toward its development*. It is acknowledged (in regard to this sub-domain) that manifestations of *sense of community* vary between societies, that there may be tensions within societies between demands for social cohesion and the existing diversity of views and actions, and that the resolution of these tensions is an ongoing area of debate within many societies. (Schultz et al., 2016, p.19)

There is no doubt here that individual responsibility, as well as collective responsibility towards one's own community, should be stimulated and that sense of community should be interpreted in a specific way that comes close to social cohesion. The definition given to "community participation", i.e. a "primary focus on enhancing one's connections with a community, for the ultimate benefit of that community" (p.19), seems to confirm this interpretation. The key concepts used in this content domain of "Civic principles" are: "Concern for the common good", "Human rights", "Empathy", "Respect", "Social Justice", "Inclusiveness" and "Equality". This entails that a good citizen is one who places the common interest above his individual interest, given that "... the ultimate goal of civic and community action is to promote conditions that advantage all members of the community" (Schultz et al., 2009, p.19) and that a good citizen should be one who has empathy, because empathy leads to "intellectually or emotionally taking the role or perspectives of others" (p.19). Both ICCS frameworks prescribe some of the characteristics citizens should have and the kind of characters they should develop. Key concepts are the same for both frameworks.

A closer look at the content domain of participation and the way it is defined, demonstrates, again, that ICCS conveys a specific view on democracy and good citizenship. The ICCS 2009 and 2016 (pp. 20-21) reports offer the same definition of civic participation.

> *Civic participation* refers to the manifestations of individuals' actions in their communities. Civic participation can operate at any level of community and in any community context. The level of participation can range from awareness through engagement to influence. The three sub- domains of civic participation are:
>
> - *Decision making*
> - *Influencing*
> - *Community participation*

What is interesting here is how community participation is more specifically defined.

> *Community participation* focuses on participation, with a primary focus on enhancing one's connections with a community, for the ultimate benefit of that community. The aspects of this sub-domain are:
> - *Volunteering*
> - *Participating in religious, cultural, and sporting organizations*
> - *Keeping oneself informed for the 2009 (p.29) version and Acquisition of information for the 2016 version.* (pp.20-21)

The combination of volunteering and participation in religious, sport and other organisations, as well as engagement in the community as a goal, should lead to the development of ties among citizens in accordance with the characteristics of social cohesion. This begs the question why the researchers have replaced social cohesion by a sense of community. Communities can only benefit from their citizens when the latter are actively engaged within them. This implies that active participation requires from citizens that they participate in their community to increase social cohesion.

The nature of the questions posed in the test and the scoring guidelines show that this "active engagement" needs to be motivated in a certain way. Let us look into the way some of the questions are phrased in the cognitive test developed by the ICCS, to enhance our understanding of how and why citizens should engage. This item measures, among other things, volunteering and civic motivation. The scoring guide for the item is revealing.

> A local school has a volunteer day. On this day parents volunteer to come to the school and paint the classrooms. The parents are not paid for their work.
>
> <Male Name> is a parent who does not like painting, but he volunteered anyway.
>
> Write the best reason to explain why <Male Name> volunteered to help paint the classrooms.
>
> The example student responses in the scoring guide for Example Item 5 are all "real" responses provided by students during the ICCS field trial.

Full credit
Code 2: Refers to either or both of the two categories of reasons listed below.
RC1. a concern for the common good
RC2. a desire to participate in the local community.

RC1. Suggests a concern for the common good as a motivation for volunteering. [Note: A desire to help others or to help the school is seen as sufficient for this category.]

Example responses:
• He wants to contribute to the school.
• It's the right thing to do.
• Because he's helping other people, even if he doesn't want to he would feel better for knowing he helped them.

RC2. Suggests a desire to participate in the school/local community as a motivation for volunteering.
Example responses:
• He wants to get involved in his child's school.
• He wants to feel part of the local community and the school.
• So, he can socialize and have fun.

Partial credit
Code 1: Suggests only immediate self-interest or benefit as a motivation for volunteering.

Example responses:
• He wants to look important/wants to look good.
• He wants to learn new skills.
• To make sure he knows the environment his child is working in.

No credit
Code 0: Refers to a generalized personality quality of <Male Name> or provides an irrelevant,
incoherent response, or repeats the question.

Example responses:
- He doesn't want to refuse. [vague]
- Because his children go there. [vague]
- Because he is probably a good man, is generous and it was a chance for him to volunteer.

In order to receive full credit, a student should understand that the real reason for investing in and engaging in the community should not be a selfish one, even the parent's concern for his child's own environment is regarded as individual interest. Only responses showing that common interest and intrinsic motivation are the factors stimulating community participation, are deemed correct. This means that, not only is there a bias in the definition of citizenship, in the kind of questions asked, but also a bias in the answer maps: the moral behaviour befitting an active citizen should be demonstrated. In addition to this, the social desirability bias is also a threat. In the 2010 ICCS international technical report, discussing the validation of the measurement of citizenship (p.66), the way in which some questions are framed leaves no room for doubt as to the underlying idea of a good citizen; if students are just a little bit sensitive, they will know what kind of answer is expected.

<Male Name> buys new school shoes.
<Male Name> then learns that his new shoes were made by a company employing young children to make the shoes in a factory and pays them very little money for their work. <Male Name> says he will not wear his new shoes again. Why would <Male Name> refuse to wear his new shoes?

Students can choose among the four following answers:
(a) He thinks that shoes made by children will not last very long;
(b) He does not want to show support for the company that made them*;
(c) He does not want to support the children that made them;
(d) He is angry that he paid more for the shoes than they are actually worth.

The casus continues with the following question <Male Name> wants other people to refuse to buy the shoes. And the possible answers are: how can he best try to do this?

(a) Buy all of the shoes himself so no one else can buy them;
(b) Return the shoes to the shop and ask for his money back;
(c) Block the entrance to the shop so people cannot enter it;

(d) Inform other people about how the shoes are made*.
The asterisk indicates the 'correct' answers.

Good citizens are those who only buy fair trade products and take action on discovering that the goods they have acquired fail to meet these criteria. In short, it is not enough to merely want to buy fair trade shoes, but it is also important to become a sort of activist in order to denounce the use of child labour by shoe manufacturers.

As Kennedy (2008) mentioned, even though it is ICCS's purpose to compare different countries around the world with regard to citizenship and citizenship education, they set standards for policy makers to follow through the definitions used and by their measurements. Furthermore, the way certain questions are framed, and the way responses are scored, allows for the ideal citizen according to ICCS, to be more precisely defined. It is a citizen who has developed certain kinds of competencies, virtues and attitudes: he/she has a strong sense of solidarity, he/she places the common good above individual interest, he/she is intrinsically motivated to participate within the community and is a human rights activist. The ICCS is not an isolated case. European national policies hold similar views. In the Netherlands, the same kind of citizenship is promoted, as well as in Australia and Belgium. Among the authors of the ICCS framework are also researchers who influence policy such as Kerr or Schultz in England, and Fraillon in Australia. Schultz and Fraillon are the authors of the NAP-CC framework (2010) that measures citizenship in the example of "Rights and responsibilities of citizens in a democracy" in Australia. There, the same type of bias is present in the questionnaire and scoring categories. An example will be given as an illustration of this bias.

Years 6 and 10

Jenny is walking along the street and has some rubbish to get rid of. She knows it is against the law to litter, but there are no bins around. She also knows it is very unlikely that she will be caught and get a fine.

In this situation, why is it not okay for Jenny to drop her rubbish on the ground?
Give what you think is the most important reason.

Scoring Categories

Full Credit

Refers to a sense of social responsibility directly or indirectly.

Partial Credit (high)

Refers to the negative effect on the environment.

Partial Credit (low)

Reasserts that littering is against the law.

In this scoring category, environmental concerns are valued less positively than social responsibility and respect for the law is rated even lower. The normativity of the scoring categories, leads to neglecting other reasons that might be considered valid by an environmentalist, or by someone with a strong law ethic or liberal convictions. Obeying the law is the response receiving the least credit. Here again, motivation is ideally social in nature, even if the different motivations lead to the same behaviour. This undervaluation of alternative ideas regarding citizenship could induce policy makers and researchers to misjudge the degree of citizenship (of active citizenship and citizenship participation).

To sum up, even though the ICCS claims to be aware of the ongoing dispute on conceptions of citizenship, by not explicitly positioning its own conception in this discussion and hence not justifying it, it implicitly fails to acknowledge other conceptions and implicitly denies this continuing debate (i.e. political constraint). The ICCS acts as if it does not choose a certain conception of citizenship, but it still does in the form of biases regarding its definition, the kind of questions asked and the scoring guidelines. The ICCS's apparent recognition of the ongoing debate seems to be more of a rhetorical nature. The way citizenship is defined and measured by ICCS, is actually supported by European and national policies. As Hedkte (2013) states, this kind of participatory citizenship education embodies a functionalist view of citizenship: "these educational participation policies embody a functionalist strand of thinking and instrumentalise youth as a resource for the political system(s)" (Hedkte, 2013, p.55). In the next paragraphs, I shall analyse the work of some citizenship education researchers who, contrary to ICCS, seem to take into account the discussion about democracy and citizenship –at least at first sight. The first case is an article of Eidhof, ten Dam, Dijsktra and Westhof (2016), researchers whose work is important for Dutch education policy because (Ten Dam was president of the national Education Council, the Onderwijsraad, and Dijkstra works for the Education Inspectorate).

The example of the Netherlands: semi-consensus as justification

In a recently published article Eidhof, ten Dam, Dijkstra and Westhof (2016) state that there is a consensus among political theories regarding the goals

of democratic citizenship. They distinguish between democratic citizenship goals and citizenship goals; the first as general goals, the second as more specific. According to the authors, the consensus found in the literature concerns the general level goals:

> A fair amount of consensus exists between various political theories with regard to the promotion of democratic citizenship. As such, these consensus citizenship goals can serve as common ground. To stimulate or sustain democracy, societies cannot depend on the existence of democratic institutions alone. A democracy is defined by its practices as much as its principles: principles are most effective when supported and practiced by all citizens. (Eidhof et al., 2016, p.3)

This consensus is based on the threefold virtue that citizens must possess: (1) "tolerance for diversity and civility" as well as recognition of equal rights, (2) solving conflict in the personal, public and political sphere in a non-violent way and lastly (3) civic engagement through volunteering (Eidhof et al., 2016).

This supposed consensus, and the way it is justified, is problematic. The authors underestimate the actual dissensus. There are fundamental differences between political theories regarding the kind of responsibilities citizens should take on, and the kind of virtues citizens should possess (Kymlicka & Norman, 1994; Kymlicka, 2004). Firstly, tolerance and diversity are defined and evaluated differently, even within a liberal model, the same applies to minority rights and group rights. Secondly, putting too much emphasis on solving all kinds of conflicts in a peaceful manner does seem to disregard contestary forms of citizenship (Hedkte, 2013). And thirdly, the last virtue mentioned by Eidhof et al. (2016) represents a participative approach belonging to a specific interpretation and valuation of civil society, namely that advocated by Almond, Verba and Putnam. Civil society is defined here as actively participating in associations, non-governmental organisations or the neighbourhood; citizens develop informal ties with each other. This idea of civil society is contested. For example, according to the reasoning of Kymlicka and Norman (1994), teaching civic virtues to citizens is not a raison d'être of associations such as churches, sporting associations or others. Furthermore, citizens usually join such associations for other reasons than for learning civic virtues. Therefore, stating that there is a "fair amount" of consensus among political theories about volunteering as participation practice is problematic. Not all political theories see such participation as an aspect of citizenship, or as necessary (Brennan & Lomasky, 2006; Hedkte, 2013; Kymlicka & Norman, 1994).

Besides the question of which virtues are relevant, even general goals of democracy and citizenship are controversial (Van der Ploeg, 2015; Van der Ploeg & Guérin, 2016). For example, the matter of equal rights is subject to virulent discussions among representatives of various theoretical frameworks (Kymlicka & Norman, 1994; Kymlicka, 2004). Furthermore, in their article, Eidhof et al. (2016) defend the view that *all* citizens must participate actively in civic life. There is no consensus among political theories as to whether the participation of all citizens is necessary for a democracy to function well and the same applies to the kind of participation required. Thus 'where', 'how' and 'how many' citizens should participate is also a matter of controversy. Some political philosophers argue that it is sufficient to sustain a democracy when only a portion of citizens participate. For Eidhof et al. (2016) a good citizen is an active and engaged one. Amnä and Ekman (2014) concluded in their research that the way active and passive citizenship is defined is contra-productive, as it leads researchers to think in terms of a dichotomy. In their research, they found that some of the youths typed as passive, should preferably be considered as "standby" citizens, having a basic confidence in democracy and prepared to come into action when necessary.

Eidhof et al. (2016) recognise the ongoing debate about the definition of citizenship. In their conclusions, the authors state (p.12):

> The contested nature of specific conceptions of citizenship should not dampen the discussion among education professionals, academics and policy makers; rather, it should invite them to sharpen their beliefs and practices. However, as most democratic governments restrain themselves in providing specific conceptions of good citizenship for schools, schools should similarly allow students to discover and develop their own norms and values. In addition to offering citizenship education that includes consensus goals, they may let students experience different contested conceptions of good citizenship, so that they are able to gain an understanding of the variety of citizenship practices present in society based on which they would be able to make an informed choice.

But they themselves are discussing just one concept of participation, volunteering, coupled with a defined set of civic virtues. They don't debate the controversial matter of what makes a good citizen; they don't discuss the notion of rights (political rights, economic rights and social rights) and responsibilities, including the kinds of civic virtues needed (political responsibility, economic responsibility and social responsibility), nor the kinds of participation required according to the different political theories and

citizenship theories. Merely acknowledging an ongoing debate is not the same as taking it seriously and adopting and justifying a position within this debate.

Civic Competence Composite Indicator (CCCI): making up a consensus

Another, and final example of the way theoretical frameworks are justified, will be illustrated by the work of Hoskins. Hoskins attempted to justify the theory of citizenship she used in developing the Civic Competence Composite Indicator (CCCI), an instrument for measuring the civic competences of youth across Europe. In her work, Hoskins details three theories of citizenship: liberalism, civic republicanism and the critical model of citizenship. She tries to combine these three competing views on citizenship. In doing this, she does not state that there is a consensus, like Eidhof c.s. She takes account of the differences. But still, her approach is questionable.

An inclusive approach with an eye to developing a broad measurement instrument, seems a judicious choice: different conceptualisations of citizenship are thus brought together. From each of the citizenship theories, "models" as Hoskins calls them, she extracts aspects that reflect the kind of qualities an active citizen needs in order to sustain democracy. However, there are four problems with Hoskins' use of different models. The first being that her reconstruction of the different models does not do justice to the nuances and positions contained within such models in their original form. The second problem is that Hoskins selects aspects from each model, raising the question whether these aspects still represent the model she has been describing. The third problem is that Hoskins, in elaborating her CCCI, does not justify how these competing views on citizenship can be combined. The last problem is a practical one. As policy makers use such measurements to monitor citizenship education, it could imply that schools have to deal with educational goals originating from competing theories.

For the three different models, Hoskins (2013) distils the kind of participation expected of citizens and the kind of virtues citizens need. In her account, liberal models are the least demanding for citizens, while civic republicanism is the most demanding. In Hoskins' reconstruction, critical citizenship is linked to the pursuit of social justice by citizens and is defined as an unconventional way to exercise citizenship. I will present Hoskins' account and will demonstrate that it is not always accurate. According to Hoskins (2013), early liberal theories could be considered thin theories because, when it comes to political participation, they were primarily concerned with voting:

> The liberal model of citizenship is typically considered the least demanding. In its original meaning, liberal democracy is typically considered "thin" democracy. This means that citizens' involvement in public life is minimal and primarily

> enacted through the vote (Carpini & Keeter, 1989). However, even this political activity is not an obligation, and, in elections, the choice is often made from a small number of "reasonably minded" parties. The government within purely liberal democracy would have a mandate generally limited to the protection of rights and property. (Hoskins, 2013, p.26)

Further on, Hoskins (2013, p.26) states:

> Citizenship within the liberal model emphasizes the right of individuals to participate politically or not, as the case may be, but it posits that, if the state is kept to a minimum, civil society will flourish.

Hoskins acknowledges that later liberal theories, through the influence of Putnam's theory on social capital, have recognised that citizenship is not only about the interaction between citizens and the state, but also includes interactions among citizens themselves. According to Hoskins (2013), contemporary liberal views of citizenship conceive participation, not only in terms of political participation, but also as participation in civil society through volunteering. Hoskins (2013) puts an emphasis on the role of NGO's as representatives of civil society. NGO's give a voice to active citizens and can mobilise them:

> Citizens participate in associations, not only out of feeling of obligation, but a feeling of pleasure from enjoying forming relationships, and building a sense of emotional attachment or belonging to a group (Norman, 2010). Citizenship education from this perspective often focuses primarily on *doing* activities to help others in the community... (p.23)

The focus of citizenship education within liberal theories involves knowledge, skills and dispositions towards engagement. Knowledge must be value neutral; according to Hoskins, the only values that ought to be learned are: "conformity to the procedural rules of liberal democracy (including acceptance/tolerance of a diversity of values) and the value of equality before the law" (p.27). Furthermore, Hoskins concludes that promoting the values of individualism and self-interest through citizenship education is seriously questionable. The aspects Hoskins retained from the liberal model, for the operationalisation of the CCCI, are: "the qualities of the need for knowledge and skills on democracy and the values of equality within decision making" (Hoskins, 2013, p.28).

After her characterisation of liberal theory, Hoskins (2013) turns to the description of civic republicanism. According to Hoskins (2013), civic republicanism places higher demands on citizens' civic virtues as they are required to engage actively in improving democratic processes, namely: "positive laws for social change, and the instrument to prevent corruption" (p.28). Hoskins highlights the contrast with liberal theories since, in civic republicanism, citizens have a duty to participate and take part in political decision making. The civic virtues needed here are:

> public spiritedness, solidarity, and the responsibility to act for the common good. Honohan (2002) asserts that, without civic virtues, too much self-interest, that is associated with liberal model, can lead to corruption. (p.29)

Hoskins (2013) contrasts the "traditional" liberal model with civic republicanism. She acknowledges that the liberal model also encompasses theories of citizenship that emphasise responsibilities and participation. But she does not develop these theories properly, stating that even if these variations exist, liberal theories still stimulate "individuality and self-interest", and defining self-interest in the most negative way possible. This argument enables Hoskins (2013) to justify her choice for aspects of civic republicanism that are important to the CCCI: for instance, public spiritedness and solidarity.

The third and last model to be discussed by Hoskins, besides the liberal and republican models, is the critical model based on Abowitch and Harnish (2006). According to Hoskins (2013, p.30), these critical models have a more "dynamic view of democracy that is grounded in critical and engaged citizens and there is an explicit values agenda towards improving social justice.... Critical models are predominately, explicitly based on values of equality and are critical of the current status quo." Hoskins does not refer to the discussion within these models about minority rights and how minorities can acquire legal power. She also does not distinguish between the different political and economic requirements of these groups but focuses on social values. This is again an example of the not always accurate way in which Hoskins describes the different models. She maintains that the civic virtues needed in such models are:

> the ability to critically analyse "social and injustices," for example to ask why people are homeless not only collect money to feed them (Westheimer & Kahne, 2004, p.4) and other social values as empathy and care (Veugelers, 2011). Within the critical model of citizenship collective action is generally

promoted but situated in the context of social movements to create social change rather than individualistic action.

Abowich and Hanisch (2006) discuss this critical model in terms of political rights and minority rights. Hoskins (2013) reduces this discussion to social change and fighting social injustice. The discussion on minority rights is complicated because, in a multicultural society, minorities include different sorts of communities: ethnic, religious, feminist, gay.... All aspiring to different kinds of rights (Kymlicka, 2002).

As demonstrated, Hoskins is not very conscientious in her account of the different models; even though she is trying to discuss nuances within the different models, she fails to explore these nuances and sometimes even excludes them. The next problem is the way Hoskins combines the three models to construct a method for measuring active citizenship. Hoskins et al. (2011, p.20) describe it as follows:

> First, borrowing from liberal traditions but with a more explicit focus, there is a need to include the qualities of valuing equal rights for participation. Second, and
>
> borrowing from civic republican tradition, the qualities of solidarity, awareness of
>
> others and public spiritedness should be included within the list. This clearly does not refer to a nationalist concept of the common good but to a concern for others. Third, from the civic republican perspective, there is a need to include the
>
> understanding of responsibility of engagement. This also encompasses the liberal notion of respect for democratic procedures. Fourth, and from a slightly different angle, and again borrowing from civic republican tradition, is the extent that individuals expect to, are interested in and feel able to participate. Fifth, from the critical model, there is a need to incorporate the values of social justice and equality for all social groups. Sixth, there is a cognitive dimension that includes a higher-level knowledge, skills from the civic republican model and the emphasis on critical thinking from the critical model, that facilitate active involvement in decision making.

In 2013, Hoskins defines her CCCI as follows:

> To develop this inventory, I begin by borrowing from the liberal traditions the qualities of valuing equal rights for

> participation, human rights and respecting democratic process but I will add a more explicit focus on these values. Next, I draw from the civic republican perspective the need for the value given to, and interest in political engagement and high-level qualities needed to be able to engage including the competence to evaluate government performance, the knowledge, skills to participate in public debate. Building from this and from the critical citizenship model, I suggest that the value and disposition towards collective action towards dismantling social injustice is also needed. Next and borrowing again from the republican... (p.31)

In this way, the measurement instrument CCCI is concluded. This form of selection is questionable for three reasons. As argued before, the theories of citizenship used by Hoskins (2013) in order to map the civic virtues befitting the European conception of active citizenship, are defined in a specific way, not taking into due account nuances within the different models. For example: "the competence to evaluate government performance, the knowledge, skills to participate in public debate", these are not only relevant in republicanism but also in certain variants of liberalism:

> However, the most interesting work on the importance of civic virtue is in fact done by liberals, such as Amy Gutman, Stephen Macedo, and William Galston. According to Galston, the virtues required for responsible citizenship can be divided into four groups: (i) general virtues: courage, law-abidingness, loyalty; (ii) social virtues: independence, open-mindedness; (iii) economic virtues: work ethics, capacity to delay self-gratification, adaptability to economic and technological changes; and (iv) political virtues: capacity to discern and respect the rights of others, willingness to demand only what can be paid for, ability to evaluate the performance of those in office, willingness to engage in public discourse (Galston, 1991, pp. 221-24). It is the last two virtues – the ability to question authority and the willingness to engage in public discourse – which are the most distinctive components of liberal virtue theory. (Kymlicka and Norman, 1994, p.325)

Methodologically, this classification is also weak, as Hoskins, et al. (2011), and later Hoskins (2013), fail to justify how their review was conducted and why they made the choices they did in categorising these three models of citizenship. Such a method of classification runs the risk of

oversimplifying theories; to differentiate them, black and white distinctions are made. For example, Abowitch and Harnisch (2006) warn that liberal models are mistakenly referred to as thin theories. Furthermore, only using certain aspects of citizenship theories, raises the question as to whether these aspects still represent the model in question.

But let us assume that using parts of a model still represents a certain theory of citizenship, then the second problem is that the CCCI is a measurement instrument, claiming to measure three different and opposing concepts of citizenship. These competing ideas of citizenship are brought together without the author(s) having discussed how such contradictions are resolved within their theoretical framework. These are fundamental contradictions because each theory regulates the relationship between citizens and the state, and among citizens themselves, in a different way. This ideally requires the development of a new theory of citizenship which demonstrates how this new theory (a) resolves the problems of existing citizenship theories, (b) offers a reasoned explanation as to why this new theory is better than other theories and (c) specifies this new theory in other terms than as a melting pot of theories. A systematic review of current political philosophy and political sciences should therefore be conducted.

The last problem Hoskins (2013) potentially causes with her 'melting pot' of theories is a practical one. Even if Hoskins is only developing a measurement instrument, as Kennedy (2008) stressed, researchers are influencing the curriculum in this way. Policy makers use the results of such measurements to monitor citizenship education in their country and to set new educational goals. Hoskins' way of measuring could induce schools to implement citizenship education-programmes with potentially opposing learning goals.

In short, Hoskins (2013) has developed the CCCI by incorporating competing views of citizenship and acting as if such fundamental differences do not matter and can be easily overcome. However, Hoskins (2013) at least discusses these competing theories, whereas European policies and part of the research community advocating a participatory approach to citizenship education, do not discuss the theory of citizenship concealed within their conception of participation at all.

Some researchers attempting to analyse this hidden framework in terms of existing theories of citizenship believe it belongs to republicanism, such as Peterson (2009), or that it is a mixture of liberalism and republicanism with a strong tendency towards republicanism, such as Van der Ploeg (2015). Looking closely at the Eurydice and the ICCS reports, they indeed reveal a specific idea of participation: citizens are required to participate actively in political, civic and civil life, this participation should be intrinsically motivated with individuals placing the common good, and so collective

interests, above their individual interests. Eurydice and ICCS fail to recognise the controversiality of citizenship, claiming that making a choice between different conceptions is not necessary, and yet they still make one.

As shown, some researchers advocating a participatory approach to citizenship education do recognise this controversiality but apply different strategies to justify this participatory approach to citizenship education. Eidhof et al. (2016) make a distinction between general goals and specific goals of citizenship. For the general goals, the authors state that there is a consensus and that the controversiality is limited to the specific citizenship goals. One of the ideas on which there is believed to be a consensus, is that participation should be enacted within volunteering practices. But, as I have argued, even at the "general" level, there is no consensus about citizenship. Hoskins (2013) also recognises the controversiality. She discusses different models of citizenship but acts as if consensus is 'makeable' by combining the three competing ideas of citizenship. The strategies used by Eidhof et al. (2016) and Hoskins (2013) fail to justify the assumptions underlying their conception of citizenship education. Perhaps a more efficient path would be to choose and justify one theory of citizenship and then translate it to citizenship education. One way of doing this would be to use a classification of theories as a starting point and framework. The question now raised, is whether using a classification of theories on citizenship is an appropriate strategy. As a thought experiment, two classifications of citizenship theories will be discussed.

Classification of theories of citizenship

There have been different models developed to classify theories of citizenship or to establish which kind of citizenship education matches which kind of political philosophical idea of democracy and/or citizenship. According to Cohen (2010), there are roughly two kinds of approach to the classification of citizenship theories: one is analysing the different programmes and attempting to distil the underlying idea of what makes a good citizen and to subsequently place this within a political model. This is what Abowitch and Harnisch have done (2006). Another way is to deduce from political models what it is that makes a good citizen and then to translate this to citizenship education (Cohen, 2010). An example of this approach is an article of Kymlicka and Norman (1994). According to Cohen (2010), both approaches have their drawbacks. The problem with analysing programmes and other documents is that these are limited to the time and context of their analysis. And the drawback of deducing the concept of a good citizen from political categories is that this cannot account for all possible variations of what it means to be a good citizen. Another complication is that theories of democracy and citizenship change over time because societal problems change, the relationships among communities change and also their needs and possible answers to the

issues. The classification of Abowitch and Harnisch (2006) was the result of an analysis of existing texts on citizenship and citizenship education from 1990 to 2003. Kymlicka and Norman (1994) analysed theories of citizenship, deriving their criteria from how these theories related to civic virtues, in order to define their classification. In 2002, Kymlicka updated this classification introducing multiculturalism and maternal citizenship, among other things.

Kymlicka and Norman	Civic republicanism	Liberal virtue theorists	Civil society theorists	The left and participatory democracy	Libera-tians	Cultural pluralism
Abowitch and Harnisch	Civic republican citizenship	Liberal citizen-ship	Critical Citizen-ship			

Table 1. *Classification*

In the following part, the two ways of classifying theories of citizenship, illustrated by Abowitch and Harnisch (2006) and Kymlicka and Norman (1994), will be analysed successively; starting with Kymlicka and Norman and followed by Abowitch and Harnisch.

In their article published in 1994, Kymlicka and Norman discuss the revival of the theory of citizenship. According to Kymlicka and Norman (1994), this revival was prompted by the shortcomings of classical theory of justice, with its focus on citizens' rights and on guaranteeing citizens' equality. Studying the relationship between citizens and the state from the perspective of citizens' rights (political, economic and social rights) had reached its limits and there was a growing urge to consider responsibilities citizens should possess in order to maintain democracy: what was and is still needed is a balance between rights and responsibilities. Furthermore, the growing diversity within society highlighted the need for discussion about identity. For Kymlicka (2004), the notion of civic virtue is what mainly differentiates theories of citizenship from political philosophical discussion. A theory of citizenship was necessary to bridge the gap between liberal theories of justice and community membership. A question raised is the nature of the responsibilities citizens should carry or which virtues they ought to possess. When discussing the civic virtues citizens should possess according to various current political philosophies, Kymlicka and Norman (1994) make the following distinctions: The New Right (Libertarians), the Left and participatory democracy, civic republicanism, civil society theorists, liberal virtues theory, cultural pluralism.

Both authors focus on the way each of these models defines participation and how the civic virtues required to participate in a democracy

can be learned: "citizenship-as-a desirable-activity", where the extent and quality of one's citizenship is a function of one's participation in that (political) community" (p.353). Here, the word political is in parentheses, as Kymlicka and Norman (1994) are referring to the political community in which the rights and responsibilities of citizens are enacted.

Kymlicka and Norman's (1994) six models will be described in a nutshell. "The New Right, later referred to as libertarians" by Kymlicka (2002) is opposed to the welfare state and ensuring citizens' social rights. The welfare state will lead to economic dependence and alienate citizens instead of stimulating them to be economically independent. In the 70's, Rawls introduced his theory of justice that, simply put, concentrated on protecting equality among individual citizens. Therefore, the state was not only meant to ensure that citizens were treated equally before the law or not discriminated against by institutions, but the state should also devise ways of redistributing wealth among citizens in such a way as to enhance equality among different individuals in their pursuit of a good life. This concept was viewed as a social approach to liberal theories. Being opposed to the idea of welfare and the idea of redistributing wealth, libertarians have faith in the equilibrium of the individual pursuit of self-interest. The state should only intervene in citizens' lives to safeguard their rights before the law. Citizens are free to choose to vote or to participate in political and economic life. Critics of the libertarians' idea of participation consider this vision to be too optimistic for sustaining democracy. Another criticism is that the quest for individual self-interest will foster inequality. According to the liberal idea of participation, public policies and institutions should be able to rely on citizens' sense of responsibility. Citizens have to play an active role in supporting and sustaining democracy and policies.

"Left and participatory democracy" theorists argue in favour of a democratisation of the welfare state, with power shifting from national to local institutions, as local institutions are closer to citizens' needs. If citizens are empowered, how can it be ensured that they will participate in a responsible way. The answer is that civic virtues are learned through participation: citizens learn to endorse their responsibilities and the kind of virtues relevant to solving common problems. In short, citizens are empowered to make collective decisions regarding the problems they face and acquire civic virtues through participating. "Civic republicanism" is an extreme form of participation. The difference with the left-wing notion of participation, is that participation in political life is seen as the highest form of living people can achieve. Political life is therefore held to be superior to all other kinds of life and citizens are intrinsically motivated to participate. "Civil society" theorists consider economic participation to be insufficient and praise the participation in voluntary organisations as providing an opportunity to learn civic virtues.

For these theorists, civic virtues, including civility, can only be learned in such associations. Civic virtues are therefore confined to the private sphere and might lead to a withdrawal from political life. Furthermore, it is not these private organisations' primary goal to teach civic virtues, such as freedom and equity; they are merely a place where citizens can share their common idea of a good life. "Liberal virtue" theory looks for a balance between citizens' rights and citizens' responsibilities. Citizenship is also defined in terms of citizens' responsibilities. As already mentioned, critics of a liberal theory of virtue tend to limit themselves to the discussion of citizens' rights and ignore the discussion among liberals on responsibility. A particular current within this theory is deliberative democracy, such as advocated by Galton, Gutmann, Landemore and others. Citizens learn these participatory virtues at school where they should be prepared to deliberate and participate in public discourse.

The last category discussed by Kymlicka and Norman (1994) is what they refer to as "cultural pluralism", and which Kymlicka (2004) calls "multiculturalism" in his later work. Citizenship identity is at the heart of cultural pluralism and is represented by minorities such as gays and lesbians, religious and ethnic minorities and so on. Citizens from such groups hold the same rights as other citizens. But due to their differences, such minority groups have often experienced oppression:

> According to Young, attempting to create a universal conception of citizenship which transcends group differences is fundamentally unjust because it oppresses historically excluded groups. (p.370)

Therefore, advocates of multiculturalism believe that different groups within society may lay claim to different rights than apply for the majority of citizens. But this view contains an inherent contradiction because it would mean that, before the law, citizens would not be equal. The special needs of these minorities can be on several levels: language rights, land rights for Indians or Aborigines, marriage and reproduction rights for gay and lesbian communities, school funding for Jews and Muslims and so on. Another concern voiced by critics is that such rights could lead to the further exclusion of these minorities, who would become estranged from the majority, thus jeopardising the ideal of sharing a common (national) identity. The final concern is that politicians might use and enhance these differences to gain voters, instead of searching for ways to bridge differences. Kymlicka and Norman (1994, p.372) distinguish three different kinds of group rights "(a) special representation rights (for disadvantaged groups); (b) multicultural rights (for immigrants and religious groups); and (c) self-government rights (for national minorities)."

Let us turn now to the classification of Abowitch and Harnisch. In Abowitch and Harnisch's document analysis, two dominant concepts of citizenship were encountered: civic republicanism and liberal citizenship. Critical citizenship, the last category identified, is an amalgam of feminism and other kinds of contesting citizenship, such as cultural citizenship, queer citizenship and reconstructionism. Abowitch and Harnisch (2006) discuss critical citizenship in roughly the same terms as Kymlicka and Norman (1994) and focus on the political requirements of these groups. Abowitch and Harnisch (2006) discuss the different currents within critical citizenship and their specific political requirements.

"The civic republicanism" citizen "loves and serves his political community (local, state or nation" (p.657). He is committed to his community, feels responsibility towards it and participates in its political and civil life. Identification with the community is important. The citizen within civic republicanism must be civically literate, as he is required to participate in public debate. Dialogue is essential to solve public problems and vital when there is a need for consensus. Therefore, cooperation among citizens is important and conflict should be avoided. Its proponents believe that such a conception of citizenship offers the solution to the lack of participation:

> Especially in the civic republican discourse, citizenship is conceptualized as a matter of "healing" our fragmented contemporary civil society. The social capital derived from healthy communal networks and their values and norms provides a sense of cohesiveness and unity that is central to the civic republican values of citizenship. In civic republican discourse, a weakened civil society results in weak social capital for our country, and this weakness is one of the central malaises to be corrected by invigorated civic education. (p.658)

Gaining civic knowledge, civil service and learning the values and symbols of the community one adheres to, are seen as ways of fostering such citizenship. The main criticisms of such a conception are (1) that it fosters patriotism and nationalism and (2) that principles of inclusion/exclusion are strong. Members of the community are included, whereas those who are not, are excluded. In this description of civic republicanism, civil society theory (the communitarian idea of democracy) is combined with left wing theory as described by Kymlicka and Norman (1994).

The concept of "liberal citizenship" focuses on individual liberty. Citizens must not be subject to one idea of the common good but should be able to define this for themselves and be free to participate in it. Equal rights for all citizens is a basic principle of the liberal conception of citizenship, and

tolerance and respect are seen as important values:

> It prioritizes the rights of individuals to form, revise, and pursue their own definition of the good life, within certain constraints that are imposed to promote respect for and consideration of the rights of others. From the conception of individual rights comes a focus on equality, or the ability of all people—especially those in historically marginalized and oppressed groups—to fully exercise their freedoms in society. (p.365)

Citizens should not be subordinated to just one conception of a good life, but must redefine it, time and time again. Reasoning and deliberative skills are relevant, as well as civic knowledge and a certain disposition that makes deliberation possible and fruitful. Cooperation among citizens is important, as citizens must discuss and find solutions for problems they face and make relevant decisions regarding these issues. Deliberative theories of democracy are included in this conception of liberal citizenship:

> Deliberative democratic theory has been a strong presence in the political liberal discourses of citizenship since the 1990s, and its influence is seen in citizenship education discourses and practices related to civility. Reasoning persons have values associated with civility—the ability and disposition to listen to views that are not one's own, the cognitive skills to evaluate and measure the claims and truths of diverse others, and the ability to reach collective policy decisions that are acceptable to all participants. (Rawls, 1993, p.663)

Criticisms of this conception of the liberal citizen are (1) that it focuses too much on individual rights which lead to a "thinner" conception of democracy and (2) that it hinders the continuation of tradition within a community. Although the liberal view values inclusion, it excludes closed communities such as the Amish, as they do not endorse its central educational goal, namely to foster students' autonomy of thought. As Abowitch and Harnisch (2006, p.662) reconstructed this idea of "thin":

> The "thinner" conceptions of liberal citizenship reflect the belief that there is less relative social agreement on values, chosen identities, and forms of democratic participation than is assumed by the civic republican discourse (McLaughlin, 1992; Strike, 1994).

The classifications of Abowitch and Harnisch (2006) and Kymlicka and Norman (1994) differ from each other on several points. The major reason for this difference is the point of departure of the classifications. Kymlicka and Norman (1994) detailed more theories of citizenship than Abowitch and Harnisch (2006) did because they used political theories of citizenship in order to discuss their classification, whereas Abowitch and Harnisch (2006) analysed existing citizenship education programs. Although Abowitch and Harnisch (2006) believe, for example, that sub-models can be identified within the liberal model, such as neoliberalism, these are not present in the analysed programs. The approach of classifying the different theories also differed in another way, for example: in Abowitch and Harnisch's account of civic republicanism, a specific theory of civil society (e.g. Eidhof et al., 2016) is included, whereas Kymlicka and Norman (1994) classify civil theories as a separate model. Abowitch and Harnisch (2006) do not mention that some liberal theories also emphasise the need for responsibility and civic virtues.

To sum up, choosing a classification model to justify the theoretical framework used for citizenship and to then translate it to citizenship education is not a convincing approach. The problem is that a classification can never map all the differences and nuances within a certain current. For example, there is not one liberal theory within the liberal model but many, and these can be placed on a continuum ranging from extremely liberal to more social. In short, within a given model, sub-models can be identified. Furthermore, researchers do not always agree on how to classify certain theories: deliberative theories are sometimes classified as republican (Peterson, 2009; Hanson & Howe, 2011) and sometimes as liberal (Abowitch & Harnisch, 2006; Galston, 2001). Using a classification is quite a complex task, as categorisations may vary and evolve along with contemporary currents in political philosophy. There are not only different ways to classify these theories, even when analysing the current mainstream participatory approach to citizenship education, researchers do not always classify it within the same model.

The mainstream participatory citizenship education: a mixed theoretical framework

Few academics have attempted to analyse the kind of citizenship the mainstream participatory approach to citizenship education is actually stimulating. According to Peterson (2009), at this time, England was promoting a republican idea of democracy in its conception of citizenship education. This civic republicanism is recognisable in the overarching goal of fostering active participation in political and public life. It is also perceivable in the following features:

> First, that citizens possess and should recognize

> certain *civic obligations*; second, that citizens must develop an awareness of *the common good*, which exists over and above their private self-interests; third, that citizens must possess and act in accordance with *civic virtue*; and fourth, that civic engagement in democracy should incorporate a *deliberative* aspect. (Peterson, 2009, p.57)

Crick (2007) agrees that his report supports a republican view of democracy. According to Van der Ploeg (2015) European policy documents, such as Eurydice, or international research such as ICCS, combine liberalism and republicanism, with a stronger republican orientation, because fostering active participation, social cohesion and harmony are the main goals of citizenship education. Citizenship education emphasises experiencing active citizenship within a real-life context (Schultz, 2008; Eurydice, 2012). This hybrid view remains undiscussed and excludes both more activist ideals of democracy and non-participative ones (Van der Ploeg, 2015).

In the Netherlands, the same mixture of republican and liberal conceptions of citizenship education is supported, stressing the need to practise participation within schools in order to foster active participation (De Winter, 2006; Bron, Veugelers & Van Vliet, 2009; Onderwijsraad, 2012). Educational approaches should focus on teaching students "social and communication skills, should enable empowerment and encourage building up positive self-concepts and gaining positive participative experiences" (Bron, Veugelers & Van Vliet, 2009, p.31). When it comes to learning how to deliberate, the Dutch Institute for Curriculum Development (SLO), for example, focuses on determining one's position towards a subject and learning how to argue and to respect others' opinions. Policy makers do not explain or discuss their links to a specific idea of democracy and citizenship. In short, both European policy and national policy, such as in the Netherlands, encourage a certain conception of citizenship: one that embodies solidarity, harmony and places the common good above one's individual interests (Van der Ploeg, 2015; Zimenkova, 2013).

> EU/Council of Europe: The active democratic participating citizens consider themselves a part of Europe, support diversity and are tolerant; they easily combine their nested identities. The individual citizen is active in her/his society and community; her/his political actions are restricted to non-violent activities and carried out in order to maintain equity and harmonious co-existence.
>
> In "older liberal democracies", the young active citizens

> consider being part of Europe something useful and nice. They understand their task as citizens in improving community life. Filling in where the state is not able to act in order to maintain societal cohesion and reduce inequalities is her/ his citizenship task. The citizens take active political action in global (preferably non-European) problems. (Zimenkova, 2013, p.46)

For Zimenkova (2013), even if Europeans and several European countries state in their documents that young people should be prepared to reflect as critical citizens, these critiques should not challenge democracy itself:

> All these call for civic activities which *do not question* the given political order (or detract from other kinds of criticism). What is expected, then, from an active political citizen is that she maintains cohesion, observes politics and (if at all) critically reflects on politics, is informed about politics and then reproduces and supports the division of labour within democracy. (p.48)

The mainstream participatory approach to citizenship education favours an obedient citizen and rules out more radically contesting forms of participation, such as insubordination (Hedkte, 2013). Other conceptions of democracy and citizenship criticise the fact that the scope of participation is mainly limited to social and political practices. Brennan and Lomasky (2006) that economic participation is also a form of active participation and as just demonstrated there are different concepts of citizenship for which reasonable arguments can be given.

In short, advocates of the mainstream participatory approach to citizenship education are not always transparent in justifying the underlying assumptions of their concept of citizenship. Sometimes they fail to justify it at all, even though it has been established that it is crucial to make one's theory of citizenship explicit, otherwise students' autonomy is threatened. Other researchers and policy makers act as if there is a consensus and others combine different and competing theories of citizenship, giving the impression that they have chosen a broad concept of citizenship. Lastly, classifications can vary depending on the criteria used in order to categorise theories of citizenship. This means that justifying a citizenship ideology for citizenship education will imply justifying the classification used, but classifications do not consider the variations within one model and are therefore of little use. The last step that can be undertaken, is to choose a specific conception of democracy and a theory of citizenship that can be translated as citizenship education. I will use deliberative democracy as an illustration of how, within

this theoretical framework, different variations can be found. As already mentioned, deliberative theories are sometimes classified as republican and sometimes as liberal. This conception of democracy and this theory of citizenship have been chosen in this dissertation as a framework and within this theory a specific choice will be made. This choice will be justified in chapter six and derives from the discussions in chapter two, three and four.

Deliberative democracy as a framework: different choices for citizenship education

Even a specific concept as deliberative democracy is a broad concept of democracy with no consensus among deliberative theorists regarding the goals and process of deliberation (Peterson, 2009; Bächtiger, 2012; Landemore & Page, 2012). For some deliberative theorists, deliberation is not deemed necessary to reach a consensus, but its aim lies in discussing an issue with others, providing reasons and justifying them publicly. For others, the emphasis of deliberation lies in expressing one's values, sharing them, while respecting others' autonomy and judgement, and developing a (shared) identity. For still others, reaching a consensus and making joint decisions is seen as the aim of deliberation, with the emphasis on increasing epistemic quality (Landemore & Page, 2012). This stance about the epistemic function of deliberation is supported by epistemic deliberative theories that "emphasize the instrumental properties of deliberation, namely the fact that it may and should get us to the 'correct answer', or at least, to the best possible answer to a given collective problem." (Blächtiger, 2013, p.21). The chosen focus regarding the aim or process of deliberation has a bearing on how citizenship education should be taught. Peterson (2009), Parker (2006, 2010) and Hanson and Howe (2011) use a deliberative framework, justifying which aspect of deliberation to emphasise, why, and sometimes also how. They stress that defining such a framework helps clarify the kind of skills students should learn and how. Therefore, it gives orientation to teachers' educational practices. I will briefly discuss the views of each of these authors on citizenship education and then compare these approaches.

Peterson (2009) uses contestory deliberative democracy as a framework in which citizens jointly criticise and discuss policies developed by political representatives. Deliberation among citizens is a means to control and correct these decisions. These choices have consequences for the educational practices of citizenship education. Peterson places more emphasis on what has to be learnt and why and, subsequently, how. According to him, teachers should develop in their students three civic capacities: civic listening (listening skills), civic empathy (understanding others' interests and the common interest) and internal reflection (critical consideration and evaluation of students' personal positions). Peterson points out, that although consensus may be one outcome

of deliberation, most important in a contestory deliberative democracy, is teaching students to scrutinise their own values, to share them with others, to learn how to take others' perspectives and to experience how open discussion may lead to "unforced agreement" (2009, p.66). Peterson specifies this kind of deliberative framework as "a contestory framework" and states that the goal of discussions is ultimately to improve the quality of political decisions. The process of communication is important, but the object of deliberation among citizens is always a political one. Parker (2006, 2010) and Hanson and Howe (2011) do not define within the deliberative framework which variant of deliberative democracy is chosen.

For Parker (2006, 2010), citizenship education should foster "democratic engagement". During classroom discussions, such as seminars or deliberation, students should learn how to listen and speak to each other. Parker defines this as learning how to speak to "strangers" and become "political friends". Students learn to expose and share their values with others from different (cultural) backgrounds, to explore these values in a respectful way and develop a sense of equity and trust. Seminars are classroom discussions in which students discuss and interpret books, films and essays, whereas deliberation refers to classroom discussions on controversial issues and reaching decisions on these matters. Although preparing students to participate in discussions, to construct sound arguments, give reasons and develop alternative solutions on how to solve such issues are all part of deliberation, in Parker's case, the teacher focuses on how students communicate with each other and learn to value their differences. Teachers should foster three kinds of attitudes that stimulate listening skills: reciprocity (putting oneself aside and developing the capacity of listening to others' perspectives), humility (humility is necessary to truly listen to another's perspective and understand the different aspects of another's experience, emotions, beliefs) and cautiousness (being careful not to answer too rashly, not to make too hasty judgements, but to take time to think through and respond to what has been said) (Parker, 2010, p.2829-2830). Although Parker (2003) developed a three-step decision making framework for deliberation, in recent years his emphasis has shifted towards solidarity-building and listening skills.

Hanson and Howe (2011) emphasise the autonomy of individual citizens as a relevant concept for deliberative democracy. Citizenship education should foster autonomy by encouraging students to express their values and to respect those of others when deliberating on moral issues. By engaging students in such critical deliberation in a respectful way, inclusiveness and fairness are promoted and students' autonomy increases. Teachers should start out by asking students to consider their own position or a given position on the issue at hand, then invite them to listen to each other's reasons and critically discuss these. In this phase, encouraging students to understand and

take others' perspectives is relevant, as well as respecting these perspectives. The outcome can be a consensus, but it is also important and relevant to have students evaluate the process of deliberation, especially to ascertain whether everyone's autonomy has been respected: were all students able to express their own values? Were they able to ask questions? And were the critiques respectful? In this conception, autonomy can only be reached by creating a social and emotional space fostering a certain kind of justice, where citizens can feel at ease to deliberate on moral questions.

All these authors put the emphasis on the communication process during deliberation, rather than on the outcome. For all authors, this communication process should be one that encourages optimal exchange among students; however, the ways in which the authors believe this exchange should be facilitated do vary. For Peterson (2009), deliberation is a political act and students should exercise how to listen critically to each other while trying to understand the others' viewpoint. Parker (2006, 2010) believes that students should learn to build a certain kind of relationship, becoming "political friends" while deliberating. According to Hanson and Howe (2011), fostering autonomy by building a sense of solidarity and understanding, is the purpose of exercising deliberation. Reflecting on how the deliberation process went, is also relevant because it strengthens the sense of being involved in a fair process of deliberation. Above all, deliberation should enable students to share and to express values and experience through respectful and open discussion. But deliberation can have other goals than sharing values (Landemore & Page, 2012).

To sum up, within one model, such as the liberal model, there is a variation of sub-models of citizenship theories, and even within these sub-models there is variation. I have illustrated this variation by looking at the example of deliberative democracy. What deliberation asks of citizens, and therefore of students, varies according to the goal of deliberation and the goal educators set for citizenship education.

Concluding discussion

European and international research and policy regarding citizenship education use the same conception of democracy and citizenship. The theoretical framework underlying this conception is not discussed or even mentioned. Good citizens are citizens who are actively engaged in the community to ensure its welfare. Hence, they are citizens who give priority to common interests above private interests, possessing virtues such as empathy, and participating, not only politically but also socially, by volunteering or participating within organisations. The goal of this mainstream participatory approach to citizenship education is to stimulate social cohesion (Van der Ploeg, 2015). This participatory approach to citizenship education rules out other theories

of citizenship and democracy. Teachers and students are locked up within one single perspective. As Zimenkova (2013, p.41) analyses: "International research in citizenship education as well as European and national policies of citizenship education support the illusion of a common European consensus on democracy and good European citizenship". In this case, Zimenkova refers to the illusion of a common consensus; however, researchers and policy makers do not even justify their choices, while acknowledging the ongoing debate, using this acknowledgement as a rhetorical trick, as ICCS does; or when they do make an attempt to justify this common ground, they use limited references or a questionable line of reasoning, as in the case of Eidhof et al. (2016) or Hoskins (2013).

Attempting to classify European and national policies as a single philosophical political model is risky, due to the presence of multiple and varied theories within each model. Making explicit a chosen theory of citizenship using a classification model would not be precise enough. Therefore, choosing a specific theory of democracy (a sub-model within a model) as described and discussed in political philosophy, makes it possible to justify the chosen learning goals and educational approaches. Being transparent about the theoretical framework being used, helps teachers and students make reasoned choices and judgements regarding the kind of citizenship education they want to implement. It increases their autonomy and thinking possibilities about the nature of democracy and its possible expressions. But even within a specific theory of democracy, there can be variations, as was apparent in the case of deliberative democracy. The variations, concern for example, the goal and purpose of such a conception of democracy. It is, therefore, important to be specific about the chosen theoretical framework for citizenship education, even within an already specific framework. The intent of this chapter was not to conduct an extensive review of theories of democracy but, in line with Peterson (2009), Parker (2006, 2010) and Hanson and Howe (2011), to demonstrate that even the choice within deliberative theories leads to the development of specific pedagogical approaches. In the chapter six, the chosen theoretical framework is justified and then translated into educational principles and educational goals. But first, I will turn to the fundamental constraint: strategic and educational shortcomings.

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Chapter Four - Learning to participate: Educational and strategic concerns

In chapter two the practical problem of the mainstream participatory approach has been analysed: the feasibility of the mainstream participatory approach of citizenship education. It has been demonstrated that the combination of all aspects to be stimulated, knowledge, critical thinking skills, values, attitudes and participative behaviour, is unachievable. This would place excessive demands on schools with respect to teacher knowledge and teaching skills, as well as on the managerial capacity of school heads and on the resources needed. It was also demonstrated that the political constraint applies: it stimulates a certain kind of citizenship, leading to a hidden curriculum because the theory underlying their vision of 'good citizen' is not made explicit and not justified (see chapter three). But feasibility and the political constraint are not the only problems this mainstream participatory approach of citizenship education faces. The focus on changing students' behaviour in a certain way is both strategically and educationally problematic. Strategically, because it is questionable whether individual actions can solve the complex societal problems that democracy and the environment are facing leading students to simplify reality. This limits students' autonomy. Educationally, because students' autonomy is also jeopardised when just one conception of what makes a 'good citizen' is taught: namely a person who shows solidarity and participates, while at the same time making it one's educational goal to turn out such citizens. A long tradition of philosophers of education, including Benner (2005), Carr (2003), Hirst and Peters (2012), Imelman (2002), Oelkers (1984), Van der Ploeg (2015), have argued that the main goal of education is to stimulate students' autonomy. Autonomy, in this dissertation, is defined as: "self-government in accordance with one's own truths and values" (Van der Ploeg, 1995, p.136).

According to Benner (2005), the translation of a societal concern must be made in such a way that it takes into account the openness of human existence. This means that the content of learning activities must stimulate and enhance students' autonomy. Benner (2005) justifies this in the following terms. Societies have grown extremely complex. The fact that the economy, political and social relationships within a country, and among countries, are intertwined, increases the openness of the future and also increases

the number of potential options and solutions one can choose from when considering one's own future. Education, as an institution, must take into consideration, on the one hand, the complexity and openness of society and, on the other hand, the openness of the future of human beings. One of the aims of education is to prepare students to act upon their lives. Consequently, students should be equipped with enough knowledge and thinking skills to be able to form their own judgements and make their own decisions. Therefore, this chapter deals with this fundamental problem. The questions that will be addressed are: *Does the mainstream participatory approach foster the development of autonomy? And if not, what kind of approach would be better?*

These strategic and educational shortcomings were also encountered in several approaches to education for sustainable development, such as that of the UNESCO, which is promoting education for sustainable development all over the world. The emergence of education for sustainable development in the nineties of the previous century, revived discussions regarding the purpose of education such as education for sustainable development. While exploring the literature on sustainable development, it was noticed that, particularly in German speaking countries, educationalists developed educational approaches that safeguard against the aforementioned shortcomings. Some propositions from German speaking regions were specifically developed to avoid the legacy of an environmental education focussing mainly on teaching the "right ecological behaviour": The Gestaltungscompetenz of Transfer 21, the socio-ecological approach of Kiburz-Graber (2006) and the Educational Principles for Sustainable Development of Künzli (2007) and Bertschy (2007). This is the reason why the responses to these shortcomings put forward in the German research on education for sustainable development are interesting for citizenship education.

The alternative approach proposed in this chapter is inspired by the educational principles formulated by Künzli (2007) and Bertschy (2007) in education for sustainable development. To make this alternative plausible for citizenship education, I will first compare the participative approach of citizenship education and education for sustainable development and show that education for sustainable development may be considered a part of citizenship education. For which reason, I will then demonstrate that both forms of education suffer from the same problems: both strategic and educational. Then I will discuss and evaluate the alternatives proposed in education for sustainable development. Based on this analysis, Künzli and Bertschy's (2007) approach to education for sustainable development appears to be the most promising when it comes to avoiding the educational and strategic problems. Finally, I will discuss how and why this educational approach is appropriate for citizenship education.

Participatory conceptions of citizenship education and sustainable development: shaping the future

As already mentioned, the educational approach of education for sustainable development will be used in order to further analyse and criticise the mainstream approach to citizenship education and to develop an adequate approach to citizenship education. My supposition is that education for sustainable development is a recent branch of citizenship education, as defined by the mainstream participatory approach. To justify this, the similarities between citizenship education and education for sustainable development will be discussed briefly. Relevant policy documents, used in this study, were analysed in order to conduct this comparison. For citizenship education, the Eurydice and ICCS were used and for education for sustainable development, the UNESCO reports. The reason such documents were used, is that they were published by institutions supporting or influencing the implementation of citizenship education or education for sustainable development worldwide. For education for sustainable development, UNESCO has financed chairs to support its development and has developed learning materials and issued reports analysing the progress of education for sustainable development worldwide. The Eurydice report, issued by the European Council, has analysed citizenship education in 30 European countries and the ICCS has researched citizenship education in 38 countries and has studied its impact since 1970. Both documents have had a strong influence on the research community and policy makers, partly because citizenship education is compulsory in many countries (Guérin, Van der Ploeg & Sins, 2013). The overarching educational goal of both citizenship education and education for sustainable development is participation (Eurydice, 2005, 2012; Schultz et al., 2008; UNESCO, 2011, 2012). First, it will be shown that this is the case for both education for sustainable development and citizenship education.

Education for sustainable development, requires that students learn how to participate at an individual and at a societal level. Citizens must participate in all kinds of processes as they are asked to help shape the future of their communities and societies. At an individual level, citizens are required to adopt sustainable lifestyles (UNESCO, 2011, 2012). Although adopting a sustainable lifestyle is based on individual action, it can be seen as social participation in the light of the rationale "every little bit helps". An agglomerate of individuals who all adopt a sustainable lifestyle in their private lives, will lead to a sustainable society. When participating in shaping the future, citizens have to take into account the social-cultural, economic and ecological dimensions of the problem under consideration while elaborating a solution. The issue's global and local aspects and potential solutions also need to be considered, as well as their future impact. Sustainable development is also

concerned with developing a society meeting the basic needs of present and future generations. Therefore, when solving issues pertaining to sustainable development, citizens must consider the demands of future generations and all dimensions mentioned above. In education for sustainable development, there is no clear distinction between political and social life or between private and public life. In the Charter of Agenda 21, what education for sustainable development should aim towards is: "…to develop enlightened, active and responsible citizenship locally, nationally and internationally" (UNESCO, 2012, p.11). Thus, citizens behaving in a sustainable manner are responsible citizens. Let us consider citizenship education and show that this overarching goal of participation applies to the mainstream participatory approach to citizenship education.

According to the mainstream view of citizenship education - the participatory approach - citizenship education should prepare for civic and civil forms of life; this means preparing future citizens to "interact and shape their communities and societies" (Schultz et al., 2008, p.22). The Eurydice and ICCS reports make a distinction between civic education focusing on political knowledge and political processes (civic life), and citizenship education including civil life, which is conceptualised as the relationship among citizens excluding the state (Schultz et al., 2008). The 2012 Eurydice report includes another notion of public life in its conception of citizenship: social life. Citizenship education should prepare for: "participation in the political, social and civil life of society" (Eurydice, 2012, p.8). To understand what is meant by social life, we first need to look at the definition of citizenship employed in the Eurydice report.

In the 2012 Eurydice report, the leading notion is 'active citizenship'. With the word 'active', the report wants to stress that citizens are expected to participate. This definition of 'active citizenship' is taken from Hoskins et al. (2006, p.10), who developed the active citizenship composite indicator (ACCI) for the Centre of Research for European Life Long Learning (CRELL). They define 'active citizenship' as follows: "Participation in civil society, community and/or political life, characterized by mutual respect and non-violence and in accordance with human rights and democracy". Hoskins et al. (2006) based their conception of active citizenship on Putnam's work and on his idea of social capital in which active citizenship plays a crucial role. Accordingly, citizenship education should encourage this kind of active citizenship giving rise to better civic and civil engagement and social cohesion (Hoskins et al., 2006; Putnam, 2000). This means that citizens should play a part in shaping their present communities and societies; however, by doing so, they inevitably also shape the future of these communities or societal processes, as current decisions have consequences for the future. Proponents of a participative approach to citizenship education also see individual actions, such as signing

a petition or donating money to a good cause, as participation (Quintelier, 2010).

In both kinds of education, participation entails learning to act at an individual and societal level. Unlike sustainable development, in shaping the future of their community and society, citizens do not have to take into consideration different dimensions (social-cultural, economic, ecological, global, local and future generations), but the leading idea is the way issues are discussed and potential solutions explored in pursuit of the common good, defined in the ICCS report as "the concept that the ultimate goal of civic and community action is to promote conditions that advantage all members of the community" (Schultz et al., 2008, p.19). What are these conditions and advantages then? This is what citizens must collectively define.

In short, the overarching goal of citizenship education and education for sustainable development is to stimulate participation in all kinds of societal processes. The principle goal of both kinds of education is to prepare future citizens to engage in communities and with societal issues. Education for sustainable development concentrates explicitly on shaping a sustainable future, whereas citizenship education focuses on the common good. However, a sustainable future can be interpreted as a common good. But the meaning could be interpreted as being somewhat different to that of the ICCS, as it encompasses a greater range of people, including all generations, whose interests must be taken into consideration, implying a broader conceptualisation of the common good in education for sustainable development than in citizenship education. On the other hand, citizens could define their common good in terms of achieving a sustainable future. Thus, depending on how they are conceptualised, education for sustainable development can be a part of citizenship education.

Similar content

Citizenship education and education for sustainable development need content in order to develop the thinking skills, attitudes, values and behaviours required for participation. How do both kinds of education relate to each other regarding their content? First, the content of citizenship education will be characterised, then that of education for sustainable development and finally the two will be compared. In citizenship education, political literacy is traditionally concerned with political knowledge. This means instilling knowledge about the workings of democracy relating to voting, political and legal systems, different kinds of democracy, as well as different types of constitution and how they function, and so on. The goal of political literacy is not only to achieve knowledge enhancement, in the sense of teaching students some facts about democracy, but also to enable them to develop an understanding of democracy and the different views on it, how political life

works and how the relationship between the state and citizens is organised. In both Eurydice reports (2005, 2012), the category of political literacy is broader than merely fostering an understanding of the political system and its institutions; the social system, societal issues, European and international dimensions are also part of this (Eurydice, 2012). For example, social-political system refers to the social-political system of one's own country, human rights and democratic values. Societal issues are understood as: equity and justice, cultural diversity, tolerance and discrimination, sustainable development, and national identity and belonging.

This broad conception of the content knowledge of citizenship education is by no means new. The QCA report known as the Crick report (1998) had already recommended that political knowledge ought to be enhanced with 'realistic knowledge', resolving current conflicts, decision making related to economic, social and environmental problems, also relevant to sustainable development. ICCS takes a similar approach to the content of citizenship education and divides its content into three domains: civic society and systems, civic principles and civic participation. Sustainable development is a key concept of the first domain dealing with state and civic institutions and citizens. The second - civic principles - deals with three domains: equity, justice and social cohesion/sense of community. The key concepts of this domain match core concepts considered relevant to education for sustainable development: the common good, human rights, empathy (equals perspective taking), respect, social justice, inclusiveness and equality. The last domain concerns decision making, influencing and community participation, also relevant to education for sustainable development. In ICCS, for example, one topic is influencing ethical consumerism, another is the role of engaging in and for the community. The content of political knowledge is no longer limited to understanding political processes but has been broadened considerably to include all kinds of societal issues. This is quite logical as citizens are expected to participate in political, civic and civil life and must be prepared to do so.

Education for sustainable development contains less political knowledge to be dealt with such as understanding how democracy works and the function of institutions. But the fact that notions such as equality, justice, human rights and the common good are part of education for sustainable development indicates that students must also have a certain degree of political understanding in order to be able to apprehend the way institutions in a democracy deal with such issues. According to UNESCO's website, the following themes should make up the core content of education for sustainable development: biodiversity, climate change, disaster risk reduction, gender equality, cultural diversity, poverty reduction, health promotion, sustainable lifestyle, peace and human security, sustainable urbanisation and water. However, a closer consideration of other UNESCO reports leads to the

conclusion that themes pertaining to education for sustainable development may be more comprehensive than the themes encountered on UNESCO's website. At any rate, these themes are often controversial, contemporary and complex issues. The 2012 UNESCO report states that education for sustainable development should be "an education that can help citizens deal with complexity, controversy and incertitude" (UNESCO, 2012, p.7).

As described, citizenship education and education for sustainable development share the same content, since all kinds of relevant societal issues can be studied under these headings. Moreover, these issues, as was pointed out in the 1998 QCA report for example, are frequently controversial. In the QCA report, controversial issues are defined as topics that often "divide society", in which knowledge can be ambiguous and there are no clear-cut solutions, only conflicting ones, depending on the type of knowledge or perspectives employed (QCA, 1998, p.56). These controversial issues are at the heart of citizenship education and education for sustainable development. Furthermore, they require the integration of different kinds of knowledge from different domains (geography, history, economy, sciences, etc.) and the use of critical thinking skills in order to grasp their complexity. Therefore, both citizenship education and education for sustainable development currently cannot be contained within, or defined as, a knowledge domain, as both require the use of interdisciplinary knowledge.

To sum up, education for sustainable development and citizenship education are similar with regard to their overarching educational goal: stimulating participatory skills, attitudes and behaviour and preparing students to participate in all kinds of societal processes. In both kinds of education, the participative goal is to attain the common good. In learning how to become a participative citizen, the content students should deal with is learning and discussing controversial issues.

Strategic and educational problems in education for sustainable development

In education for sustainable development, mainstream pedagogical approaches (e.g. Ashley, 2005; De Haan & Harenberg, 1999a; Tilbury, 2004; UNESCO, 2012; Jickling & Wals, 2002) claim that stimulating certain kinds of values, behaviour and lifestyles is necessary. Not only must governments promote a sustainable society, companies produce and develop sustainable products, researchers develop sustainable technologies, individuals also have to contribute by adopting a sustainable lifestyle. Sustainable development is a shared responsibility. As Postma (2004, p.23) states: "Citizens must be aware of the personal (individual) constraints they put on natural resources through their consuming behaviour and should therefore account for it." This idea of changing mindsets, behaviour and attitudes for sustainable

development is common in policy documents (e.g. UNESCO, 2012, 2013) and is advocated by some researchers (e.g. Tilbury, 2004). It can also be perceived in the way sustainable development has been translated for primary and secondary schools. There is a lot of online lesson material available focusing on teaching students how to consume less by calculating their ecological footprint, restricting their energy consumption and engaging in sustainable development actions (http://www.unesco.org/education/tlsf/mods/theme_c/mod19.html?panel=6#top, http://www.leraar24.nl/dossier/286/duurzame-ontwikkeling-in-het-onderwijs, http://arrangeren.wikiwijs.nl/32745#page-462092). There are two problems with this focus on individual action: it is strategically and educationally problematic.

Strategic shortcomings

From a strategic point of view, this conception is problematic because it focuses on individual actions. To start with, behavioural change, as an educational goal and practice, is not effective. Teaching students ecological or sustainable behaviour at school does not lead them to demonstrate such behaviour later in life (Kyburz-Graber, 1999; De Haan & Harenberg, 1999b). As Oelkers (1991) stated, this assumption supposes continuity between the present education and its effects on future behaviour. Learning is a complex process and behavioural change cannot be predicted in this way. Furthermore, ecological behaviour can be influenced by various factors, for instance of an economic nature. For example, a person might want to buy organic products, but be unable to afford them. Secondly, it is not strategic, since no one can predict what kind of behaviour will be needed in the future in order to achieve sustainability. Acting individually in order to participate in creating a sustainable society requires of individuals that they understand the possible impact of their current ecological behaviour and understand that current ecological behaviour may perhaps not still be ecologically desirable in the future. What is ecologically sound and how to judge whether certain behaviour is ecological, depends on several factors and often goes hand in hand with the development of new technologies. For example, is it more ecological to eat an apple produced in your own country in the winter or one that comes from another country. This will depend on how the local apple is stored in the winter and how the use of energy for this storage compares to the energy used, for example, for transporting it over longer distances. At a certain point in time, consuming an apple from abroad might cost less to the environment, whereas if, for example, storage techniques for local apples improve, it might be the other way round. And finally, isolated individual behaviour change is not enough to solve the sustainability problems societies are facing. As already pointed out, the idea behind the desire for individuals to change their behaviour is the phenomenon of cumulative effects: when all little bits are

added up, they can make a big difference. Therefore, if each individual citizen lowers their energy consumption, then a substantial energy reduction is possible. At first glance, this is an attractive strategy appealing to our common sense: collective behaviour changes can lead to improving sustainability. The problem is that the ecological, economic and societal factors we have to deal with in such societal issues and their development, are broad, complex and their solutions require more than just consumer behaviour change. There are no clear-cut solutions, and the question is whether such issues can be solved by the principle of 'every little bit helps' or whether they can be, at least, influenced positively. What could help or how these issues might be solved, is partly unknown and uncertain. Let us take the example of adopting a climate neutral lifestyle, to illustrate these strategic shortcomings.

There have been different national campaigns in the Netherlands throughout the years, such as the annual initiative sponsored by Sustainable School of Education, a Dutch platform implementing education for sustainable development in schools, that organises a "thick jumper day" in which schools reduce their heating consumption for one day. Or the initiative organised by Hier! aimed at consumers and providing information on how to live a climate neutral lifestyle by reducing one's energy consumption. The money saved is used to plant trees or to subsidise projects in developing countries (Hier, 2013). To demonstrate the problem, I consider, within this example, the suggestion of compensating individual CO2 emission by planting trees.

The interaction between CO2 absorption by trees and climate change is a complicated and uncertain matter. According to a study published in 2007 in *Proceedings of the National Academy of Sciences*, the effect of forestry on temperature reduction is not the same everywhere and in certain parts of the world it can have the opposite effect (Bala et al., 2007). Furthermore, studies show that planting trees can lead to water problems and this is especially the case in countries already plagued by water scarcity. The type of trees being planted require a lot of water within a short period of time. These trees search for water deep in the soil and thus put strain on the natural groundwater resources available. Therefore, planting trees can lead to other ecological problems. Scientists also give other reasons questioning whether planting trees is an effective strategy. If one wants to compensate ten per cent of the world CO2-emission, then 44 million hectares should be planted. As Robert Jackson of Duke University puts it, it seems more judicious to improve the energy sources used to power cars (Kempf, 2007). Other scientists see stopping the over-cropping of virgin forests as an efficient solution. The yearly tree cutting in the African virgin forests is equal to the US CO2 emission, i.e. 20 per cent of the worldwide emission (Cadu, 2007).

To sum up, compensating individual CO2-emission can, at first glance, seem like a good idea, but on closer examination, the matter of

such compensation is not so clear-cut. This example illustrates that there is no simple solution for complex problems. The knowledge we possess, for example, on global warming is limited and controversial, even among experts. Simple and unequivocal solutions just do not exist. In this light, education for sustainable development should aim at improving ways of educating citizens on how to think together about such issues and to possess enough general and technological knowledge, abilities and creativity, to allow them to think effectively about potential solutions, to see the complexity of developing solutions or to develop new technologies. Taking into account this complexity and controversiality enhances students' autonomy. An education focused on acquiring sustainable behaviour, attitudes or values cannot match the complexity, controversy, temporariness and relativity of societal issues.

Educational shortcomings

Besides a strategic, there is also an educational problem, given that such an approach is contrary to developing critical thinking and judgement (Benner, 2005, Imelman, 2002; Van der Ploeg & Guérin, 2016). Behind the plea for sustainable development and citizenship education, there is often a belief that schools can contribute substantially to a better world and that this will happen by them "making" a certain type of citizen, characterised by ecological and/or social awareness. Oelkers calls this "making citizens", the "Educational Utopia" which illustrates the educational shortcomings. An educational utopia occurs when students are used as a means to improve the future, with education as the instrument by which to achieve this. Such a utopia is linked to existential hopes and beliefs. According to Oelkers (1984, 1990), these hopes are based on the conviction that by educating students in the right way, one can influence the future. An educational utopia contains certain assumptions about the connection between present and future. One assumption is the continuity between present action (the right education) and how the future will evolve (a better society). The future is, therefore, seen as the continuation of the present. Educational action now will be effective later on and will influence, in a predictable way, not only the students' future behaviour, but also the future itself. Another assumption is the certainty attributed to educational actions: the right education leads to the right development of students and the right behaviour.

The problem faced here is the threat of indoctrination: acquiring such attitudes, values and behaviours limits students' freedom to think about how to shape their own future by exploring possible alternatives of what a good or sustainable life might be. Students may develop a sort of 'idée fixe' that such complex and controversial ecological, economic and societal issues can be solved, or at least partly solved, by making individual choices in one's daily life. This would imply that the issue of sustainable development can

be dealt with, in class, in a rather simple manner with no need for students to deepen their knowledge on the issues, to broaden their horizon and or to sharpen their reasoning. Through this 'idée fixe', it would seem that living a life according to certain and well-defined values learned at school is enough to contribute to sustainable development. As if it is not important to learn how to inform oneself regarding various topics, to gain insight in different domains, compare different viewpoints and critically scrutinise these different and often contradictory explanations, developing one's own opinions based of the assumption that knowledge is temporary and limited. I argue that a justified educational approach to sustainable development, should concern itself with enhancing students' knowledge and critical thinking skills, and therefore with their autonomy, in such a way that they can apprehend such complex and controversial issues. It is even a condition for being able, later on as adults, to make well thought-out political or moral decisions or even ones concerning possible sustainable lifestyles. In this paragraph, I demonstrated that because of this major goal in education for sustainable development – stimulating participation at an individual level – it faces two problems. The same applies to citizenship education.

Strategic and educational problems in citizenship education

I argue that when the mainstream participatory approach to citizenship education is translated into educational practices, it faces the same two problems as education for sustainable development. The mainstream participatory approach to citizenship education is a conceptualisation of citizenship education and is actively supported in Europe and worldwide (Eurydice, 2005, 2012; Hedkte, 2013; Guérin et al., 2013; Schultz et al., 2008). In this conception of citizenship education, participation is seen as an educational goal as well as a pedagogical practice. Participation is stimulated and fostered by learning how to participate in school, for instance in student councils, and outside the school by working on projects to improve the neighbourhood or participate in community service. This is achieved by stimulating in students, attitudes and behaviour judged as adequate for this participative approach, such as empathy, solidarity, a sense of responsibility (Schultz et al., 2008). Arguments such as: "Political participation is a habit: once you engage the chance that you will do it in the future is bigger" (Quintelier, 2010, p.3) seem to justify the idea of political socialisation through citizenship education. This educational goal and approach to citizenship education are subject to the same criticism as was just voiced about education for sustainable development and suffer from the same problems.

It is not strategic because changing behaviour as an educational goal and practice, is not effective. Research shows that such a participative approach yields weak results (Keating et al., 2009; Hedkte & Zimenkova,

2013). Teaching participation to students and allowing them to experience it, does not lead to adopting participative behaviour or displaying community engagement later on. It does not even stimulate their participation in elections (Keating et al., 2011). Moreover, attempting to foster certain kinds of attitude, such as empathy and solidarity, is an ineffective strategy for two reasons: empathy as a feeling is not always efficient and it is not clear how schools might foster such an attitude. Let us consider 'empathy' as an example. According to researchers and policy makers adhering to the mainstream participatory approach to citizenship education, empathy should be stimulated at school.

Empathy is seen as an emotion that can increase altruism because it helps you to understand a stranger and this in turn leads to more solidarity (your acting for the benefit of another). In short, empathy is an emotion that can lead one to act morally, but is this assumption correct? Empirical research shows that the development of empathy is influenced by several kinds of factors. The most important are biological determinants, family and peers. Relationships between parents and children, as well as among siblings, heavily influence the development of empathy (Eisenberg, Spinrad & Sadovsky, 2006). Furthermore, what is needed is not only empathy but also the stimulation of sympathy. Empathy is defined as an: "Affective response stemming from the apprehension or comprehension of another's emotional state or condition which is similar to what the other person is feeling or would be expected to feel in a given situation." And: "Sympathy is an emotional response stemming from the apprehension or comprehension of another's emotional state or condition, which is not the same as the other's state or condition but consists of feelings of sorrow or concern for the other" (Eisenberg et al., 2006, p. 522). It is sympathy that enables one to determine what another may need and implies paying attention to others. The development of empathy and sympathy is linked to the development of emotion regulation. The crucial role of emotion regulation means that early socialisation especially makes a difference: in other words, the quality of parenting style and the home situation during the early years. Schools have little scope to foster the development of such emotions. In addition, empathy does not always lead to a rational or a moral decision or behaviour. As Bloom (2013) argues, empathy can lead us to take misguided and irrational decisions because, when we identify too heavily with a person, we may lose sight of other relevant information or forget to take more balanced perspectives on the issue at hand: "Moral judgment entails more than putting oneself in another's shoes" (Bloom, 2013, p.3). To make efficient moral judgements, it can be necessary not to allow empathy to overwhelm us, Bloom argues. What is needed is rational compassion (Bloom, 2016). Empathy is seen as representing the affective side of human beings. Because of this focus on emotion, the relationship between empathy and the need for knowledge in order to learn how to make such moral judgements, can

easily be underestimated. This could lead to a kind of education that focuses on developing and stimulating certain kinds of emotions and behaviours, without stimulating students to ask themselves whether, and under which conditions, empathy, as an emotion, is efficient or not and how it interplays with rationality.

Focusing on changing behaviour is also not strategic, because no one knows which kind of participation, attitudes and behaviour will be conducive to democracy in the future. What kind of participation will be required is something students will have to determine and decide as adults, depending on the issue at hand and their own judgement. Advocates of a mainstream participatory approach believe that increasing social capital is necessary and that good citizens are those who care for others, for their communities, those who can conceive their individual goals as subordinate to the common good. Social capital means establishing long lasting relationships among individuals who support each other. Individuals create networks within and outside the community they live in. These networks can be created at a micro level (my asking my neighbour to look after my dog and, in exchange, I will look after his house while he is on holiday) and can also include larger networks among communities at a national or even international level. These networks are based on trust, reciprocity, exchange of information and cooperation. It is questionable whether this concept of what makes a 'good citizen' should be the standard of what democracy needs now and in the future. And even if it is the standard, it is impossible to predict the practical consequences with regard to requirements or desirable participation. As discussed in chapter three: there are numerous concepts worth considering of what a good citizen might be. What kind of citizens and what kind of democracy will be needed in the future, is open to dispute, and promoting one idea of participation can lead to narrowing down the possibilities for students to scrutinise different views of participating, or not participating, within a democracy.

As Hedkte (2013) argues, this kind of participation not only imposes a certain definition of what it means to be a good citizen, he also points out that this kind of citizenship education endorses conformism. Such citizenship education is actually trying to produce compliant and obedient citizens who will reproduce the status quo. A top-down instrument, argues Hedkte (2013, p.56): "In this mindset, civic and citizenship education serve, above all, as a top-down instrument for building and strengthening political and societal institutions." This mainstream approach aims at stimulating social cohesion and the attitudes and values necessary to reinforce participation:

> Functionalists, in general, view socio-political education in schools as a means to make the youth ready and able to fulfil key expectations of the political regime and authorities.

> With this in mind, I denote as *educational functionalism* those policy patterns which orient civic, citizenship or economic education, first of all, towards securing the functioning and acceptance of the ruling political, societal or economic system. (Hedkte, 2013, p.61)

And the last strategic concern is that isolated individual commitment is not enough to solve the problems societies and democracy are supposedly facing. The small scale of teaching students to get involved in their direct environment through projects or community service, does not do justice to the complexity of societal issues and global problems. Involvement and participation at a local level does not demand the same thinking, community building and solutions as global issues do. Attempting to solve racial problems in a neighbourhood could lead to increased commitment of the people living there, but also to government investment and new policy. And if people manage to solve these problems by showing more solidarity, even if this were the case, it would still be insufficient to understand other racial conflicts, such as that between Israel and Palestine. Just as for education for sustainable development, it is judicious that students learn what they can or cannot solve at a micro level and what issues can only be solved on a macro scale (Guérin et al., 2013).

The potential educational problem of this mainstream participatory approach is that it is contrary to stimulating students' autonomy. Although critical and independent thinking can be stimulated within this participatory approach, there is a potential risk that not discussing different views on democracy, on what makes a good citizen, and focusing on producing a certain kind of citizen, limits students' thinking about politics, society and engagement. The problem faced here, is the threat of indoctrination: acquiring such attitudes, values and behaviours limits students' competence at thinking about how to shape themselves as citizens, and to shape their own future by scrutinising possible alternatives regarding the common good and concepts of democracy with their accompanying conceptions of how to be a good citizen. In addition, as already discussed, teaching students to show solidarity and become empathic citizens limits students' thinking regarding the efficiency of empathy and solidarity. According to White (1999, p.59), democrats are "made and not born" and, when the mainstream researchers and policy makers of their participatory approach advocate this idea, White points out that there is no consensus about the kind of civic virtues citizens should have and these differences of opinion increase even further when discussing exactly what it means to be an empathic citizen, a courageous one or one who has faith in democracy and its institutions. Since there is no consensus and

there are different kinds of valid arguments about what kind of democracy is needed, what kind of common good should be aimed at and what kind of citizens are required, citizenship education should introduce students to different discussions, giving them the opportunity to make individual choices in the future according to the issue at stake and the context in which it is taking place.

Education for sustainable development and citizenship education overlap strongly as to their content and educational goals, they also struggle with similar strategic and educational problems. In the following section, I will analyse educational approaches to sustainable development developed in the last two decades in order to solve these problems, while taking into account the complexity, controversy and unpredictability of societal issues, these are: shaping competences of De Haan, the social-ecological approach of Kyburz-Graber and the educational principles of Künzli and Bertschy. I will analyse and judge how these approaches deal with the strategic and educational problems.

The German Alternative: Shaping competences (Gestaltungskompetenz)

In Germany, from 2004 to 2008, Transfer 21 was responsible for developing and facilitating the implementation of education for sustainable development in schools. Transfer 21 researchers, De Haan and Harenberg (1999a, 1999b), identified the same strategic and educational objections, as have already been discussed, against an approach with a tendency towards learning ecological behaviours: as mentioned earlier, research shows that an education focused on learning ecological behaviour is not effective and how do we know which behaviour will be necessary for the environment in the future? Education orientated towards such learning has no value for the future. Thanks to new technologies, knowledge and insights can change rapidly: what is seen as ecologically sound today will perhaps not be so in the future. Their last objection is an educational one: to recommend how future generations should live, goes against general educational goals. Education should take into consideration three aspects: individual openness, reflexivity, and stimulating the development of skills needed for the future (De Haan & Harenberg, 1999a, 1999b; De Haan, 2002).

According to De Haan (2002, 2006), education for sustainable development's goal is to equip students with specific competences enabling them, later on, to shape their own lives, as well as society, in a responsible manner. Taking this idea as a starting point, the "shaping competences" were developed and formulated as follows: "Gestaltungskompetenz" means the specific capacity to act and solve problems. Those who possess this competence can help, through active participation, to modify and shape the

future of society, and to guide its social, economic, technological and ecological changes along the lines of sustainable development. "Gestaltungskompetenz" means having the skills, competencies and knowledge to change economic, ecological and social behaviour without these changes being merely a reaction to existing problems. "Gestaltungskompetenz makes for an open future, which can be shaped actively and in which various options exist, possible" (De Haan, 2010, p.318). Students possessing such competences can, at an individual, societal and political level, make decisions and contribute to the development of a sustainable society. These shaping competences contain ten sub-competences, covering different knowledge and skill domains. For example, students "acquire knowledge and are acting in an interdisciplinary manner". In this sub-competence, students learn to describe and develop an opinion on different aspects of globalisation and on the points of view of different countries as to their development status. They also learn to describe and develop an opinion about different concepts of social justice.

Within these ten sub-competences, three are questionable according to the standards set by De Haan and Harenberg because they are similar to changing individual behaviour: "Motivate oneself and others to become active", "Show empathy and solidarity with the disadvantaged" and "reflect upon one's own principles and those of others". I will illustrate our concerns about this last sub-competence. At first sight, it seems that reflecting on one's own principles enhances students' reflexivity and autonomy, but the way this competency is further detailed is ambiguous and contains the idea of behavioural change, especially when it is combined with the sub-competence to "motivate oneself and others to become active", meaning that students should also be engaging in sustainable development in their daily lives. The sub-competence "reflect upon one's own principles and those of others "means that students e.g. are able to:

- describe lifestyles which secure and foster sustainable consumption patterns, environmentally and socially acceptable mobility, leisure and health;
- know and assess productions and purchasing criteria for products based on environmental, economic and social considerations;
- discover and assess the underlying justifications, forms and effects of their own lifestyles and those of other people and societies on the living and working conditions of other people and on the biosphere." (De Haan, 2010, p.324)

This lifestyle competence can easily be interpreted as learning the right lifestyle: students may be enabled to find out which one is fair, whereas in fact, they are asked to make a judgement and take a decision with regards

to their own lifestyle. At first sight, it seems that this does not fit De Haan and Harenberg's (1999a, 1999b) own objections and our own.

No focus on behaviour changes

De Haan and Harenberg (1999a, 1999b) give good arguments to safeguard their competences from aiming at changing behaviours. I paraphrase their arguments. Research shows that forcing young people to change their ecological behaviour does not work. Even though they may be interested in ecological and societal issues, they do not live according to them. How can education take advantage of this contradiction with regard to sustainable development? Knowledge about ecological and societal issues is not enough for students to become active. What is relevant is to increase their available behavioural repertoire. According to De Haan and Harenberg, this is often limited to the lifestyle students experience at home. Focusing their learning on increasing this repertoire, leads to building up students' future possible choices. It is not necessary to impose a certain behavioural repertoire on students, but they can learn about different lifestyles in a reflective way: students, themselves, can discover and define different kinds of sustainable lifestyles and learn how to reflect on these differences. This can be achieved by using pedagogical approaches that motivate and activate students' imagination and creativity through developing visions of the future, conducting fantasy journeys in thinking about utopian sustainable lives. Students examine different lifestyles, compare them, analyse and discuss them. It seems that De Haan and Harenberg have found a good alternative for teaching ecological behaviour and therefore meet our strategic and educational concerns.

Another reason for De Haan and Harenberg to focus on lifestyle, is because it is one of the goals set by UNESCO for sustainable development: countering the depletion of natural resources. Our way of living can make a large difference, our leisure activities (especially mobility) and the food we eat (especially meat consumption). As De Haan (2010, p.318) points out:

> Sustainability is about achieving a balance between rich and poor countries, and rich and poor people. Economic prosperity should be linked to efficient methods of production and eco-friendly processes for manufacturing goods. Sustainability is about reducing energy consumption and using renewable energies; it is about intelligent forms of mobility and an eco-friendly lifestyle.

Counteracting this depletion can be achieved in several ways: by developing new technologies enabling an efficient use of natural resources or by increasing the use of renewable energy sources. These efforts are only sensible

if they are used in individual daily life. Therefore, sustainable development asks for changes in mentality, lifestyle and patterns of consumption. It is not enough that companies innovate and introduce products with a lower energy consumption, if no one buys them. Teaching students to develop knowledge and skills and to judge different kinds of future sustainable lifestyles and learning how they can take into account new technology in a changing society, seems judicious. In this way, De Haan and Harenberg eliminate part of the strategic problem. The educational objection is removed by letting students research, analyse and design different kinds of lifestyles. Students learn how to reflect and develop their own judgements regarding these: students decide for themselves what is sustainable on a micro level (one's own lifestyle and that of others) and macro level (society). Their autonomy is stimulated and respected and therefore the educational problem disappears. Furthermore, education for sustainable development should not be limited to individual levels but should encompass global themes, not directly linked to students' life and environment.

Drawbacks of lifestyle approaches

De Haan and Harenberg's approach seems to be a good alternative to an education focusing on changing behaviour, but it still faces the strategic shortcomings. To focus on stimulating personal choices for a sustainable lifestyle underestimates the degree in which motives and possibilities for action for individuals are determined by contextual factors such as cultural, social, geographic, economic, societal and political factors. Lifestyle is not merely a personal choice. What can be achieved or chosen, is strongly prescribed and limited by structures and mechanisms that individuals do not always control. Besides this, such factors are ones that schools cannot influence.

Even if lifestyle was a personal choice: (1) individual lifestyle has very little influence on potential solutions and (2) it is difficult to judge what kind of lifestyle really leads to sustainability. For example, purchasing clothing. The textile industry is one of the most unsustainable and polluting of industries. Thus, choosing to buy a t-shirt made from organic cotton seems like a good thing, but there are three problems. The first is that water wastage involved in growing cotton often remains the same. The second is that even if the cotton is organic, it does not say anything about the further steps in producing a t-shirt (bleaching the cotton, using chemicals to dye it, or about the working conditions of people in the textile industry). The third is that a t-shirt only needs to be made of 30% organically grown cotton, to qualify for the label 'organic' (according to a certain quality label). In short, at first glance it seems that buying such a t-shirt is a good thing, but it is still not the solution for the considerable pollution caused by the textile industry. Only regulations, as well as coordinated actions by large and small distribution channels (such as

H&M, Zara, Primark and so on) can lead to the development of a sustainable textile industry encompassing all steps of the production process, including transportation.

Changing one's lifestyle implies that students have to learn to change their daily routine. When looking at only reducing one's own carbon footprint, even making a cup of tea can lead to relatively high or low levels of CO2 emission (Marres, 2011). According to Marres (2011), what is needed is technology that helps citizens to make the best decisions in their daily routine, such as the water boiler that tracks general energy demand and indicates when this demand is low and therefore produces less CO2. Marres (2011) calls it the materialisation of participation as everyday household devices help one to adopt more ecologically sound behaviour, without having to change one's daily routine too much. Decisive are government policies, as well as those of companies and institutions. De Haan and Harenberg did not completely remove our strategic problem. Instead of analysing lifestyles and making a choice, students should learn how they might participate efficiently in debates about government policy. This brings us to the next interesting alternative, Kyburz-Graber's social-ecological approach to sustainable development. She criticises education oriented towards stimulating the development of ecological competencies at an individual level and proposes a social ecological approach to sustainable development.

Social-ecological approach

According to Kyburz-Graber et al. (1997, p.22) learning about sustainable development should mainly focus on studying the social-economic and other contextual conditions and determinants for behaviour patterns and ways of life. Students must learn to ask themselves 'how can or must the conditions of social actions be changed in order to reduce negative ecological side-effects and reach a sustainable lifestyle.' Students must learn to depict, understand and analyse the complex interaction and relationship between economic, ecological and social processes and their impact on the environment. Such insights and reflection are necessary if students, as future fully-fledged citizens, wish to participate in discussions and decision making dealing with sustainable development. The processes have to be studied at all levels: individual, local (neighbourhood, municipality) and societal (such as energy policy, price policy). "We would claim that exploring environmental problems means critically reflecting on the economic, ethical and social conditions of human action" (Kyburz-Graber et al., 2006, p.104). Kyburz-Graber (1999) points out that the content would ideally deal with concrete social systems, so called real world situations in students' direct environment. Through action research, students learn how the social system functions and they look for measures that could lead to a more sustainable system. Factories,

supermarkets, restaurants and even households form potential subjects for lessons.

Let us take the example of the supermarket. Different aspects of how a supermarket functions, are studied, such as purchasing behaviour, consumer logic or the supermarket's purchasing policy. From these different perspectives, the individual customer parameters are explored, such as needs, product demands, environmental ethics, time and savings. Then, students turn their attention to the supermarket itself: price policies, origins of products, transport costs and so on. Finally, the societal level is studied. Parameters such as energy prices, consumer behaviour, social habits, environmental policies and ethics are analysed. This enables students to relate the different levels to one another and link consumer needs to purchasing behaviours or products available in the supermarket. The influence of, for example, government energy policies on producers, supermarkets and consumers can be studied (Kyburz-Graber et al., 1997). The idea is for students to understand the structures and processes that impact the environment. Historical development of socio-economic systems also yields an interesting perspective when it comes to gaining a better understanding of such a system. Contradictions and conflicts among different aspects can be revealed to students in this way.

Students are active: they work together, conduct research, use interviews and questionnaires to gather data, report on their findings and discuss results. Students can also be asked to participate in improving real processes or to think about possible solutions on an individual or structural basis. Students' participation is seen as a pedagogical device to gain better knowledge and understanding of their local environment. Finding a potential solution is not a primary aim. They are challenged to reflect on complex relationships and class discussions foster their critical thinking and participation skills. In addition, values, opinions and beliefs are subject to scrutiny: what is the relation between human beings and nature? Are human beings allowed to use nature as it suits them? Why do some people care about nature and others do not? In this manner, a variety of knowledge domains are combined, such as: social studies, economy, biology, geography, philosophy and ethics, mathematics, physics and chemistry (Kyburz-Graber et al., 1997; Kyburz-Graber et al., 2006).

Disadvantages of the social-ecological approach

Kyburz-Graber offers an interesting alternative for an educational approach focusing on behaviour changes or on choosing a sustainable individual lifestyle. It recognises the influence of cultural, social, economic and other contextual factors on behaviour and its motivation. It capitalises on learning that specific behaviour does not help and is not merely a question of personal lifestyle. Therefore, students learn to understand the complex interactions

of different processes in sustainable development. Students' critical thinking skills are fostered. The strategic and educational problems are partly eliminated. One remaining problem is that sustainable development, as a normative idea of how society should develop, is not within the scope of the socio-ecological approach. Furthermore, even if this approach seems appealing, it has another drawback as its scale is too limited. The strong focus on studying social systems in the students' immediate environment, such as the supermarket, the cafeteria or their own school, does not do justice to the wide range of themes associated with sustainable development. Due to the nature of proximal social systems, it is to be expected that global themes will not be explored explicitly and that the different dimensions of sustainable development will not be handled in a balanced way.

To sum up, the approaches of De Haan and Harenberg and Kyburz-Graber offer an interesting alternative to an education for sustainable development focused on producing 'ecological' citizens by changing their behaviour; both approaches, however, involve risks. For De Haan and Harenberg, one of the competencies needed for influencing students' lifestyle to become more sustainable, raises the same strategic concerns as discussed at the beginning of the chapter. Kyburz-Graber's approach is very interesting as it stimulates students' autonomy, however its restriction to their proximal environment puts it at risk of neglecting other more global themes of sustainable development.

Educational principles of Künzli and Bertschy

Another alternative educational approach to sustainable development is the one developed by Künzli and Bertschy (2006, 2007). Their vision on education for sustainable development meets our two concerns: strategic and educational, as well as the one raised by Kyburz-Graber's approach. Künzli and Bertschy's position is that education should equip students in such a way that, later as citizens, they possess enough knowledge and skills to participate as informed and critical citizens in decisions relating to sustainable development. Both educationalists stress the openness of the future, and this regarding two aspects: the openness of the way sustainable development itself can evolve and potential solutions and the openness of students' choices as adults. We cannot know, at the present, either which problems and possibilities there will be in the future, or which factors and their interrelationships will be relevant when searching for potential solutions. This point of view is also defended by De Haan and Harenberg, but Künzli and Bertschy criticise the choice to focus on stimulating individual actions, such as adopting ecological behaviour or an ecological lifestyle, for being non-educative (constraining autonomy), and they consequently developed their educational principles along this line of thinking. Their argument is not phrased in terms of efficiency like Kyburz-

Graber's is, but is an educational one: education should introduce students to learning how to shape the future in a reflexive manner (Künzli, 2007). Preparing students to think, reach sound judgements and discuss sustainable issues, is of a different nature than offering them straightforward judgements and helping then gain an understanding of a range of different lifestyles.

Therefore, it is important to define the content, the pedagogical approach and the possible curriculum that fits the scope of sustainable development and to take into consideration both strategic and educational problems. Künzli (2007) and Bertschy (2007), developed six educational principles for primary schools: participatory orientation (students take part in selected decisions which concern the class as a whole, and they share the consequences of these decisions), action and reflection orientation (students must learn to reflect on the content they are studying but also on the social process taking place while working together), accessibility (the demanding contents of the lessons will be made accessible to the children), linking factual with social, self-referential and method-oriented learning (learning objectives in social, personal or methodological fields will be acquired by examining the factual issue and will not be targeted in separate lesson units), connected learning and finally vision orientation. Of these, four are general pedagogical principles and the last two have been developed specifically for education for sustainable development. Stimulating higher order thinking skills, such as searching for knowledge, analysing, evaluating and applying such skills in discussions, for example, is also relevant. The educational principle of *connected learning* enables one to study the issue from different perspectives: global and local perspectives on sustainability must be linked together in order for students to grasp the way they can interact; socio-ecological and economic aspects should also be considered, as well as the time aspect. Therefore, the global scale of sustainable development is taken into account.

Another characteristic of Künzli and Bertschy's approach (2007) is that it is neither too optimistic, nor too pessimistic. Education for sustainable development, as Künzli puts it, should not be "catastrophe education"; however, she does not lose herself in what Oelkers (1984, 1990) calls "educational utopianism", as was discussed earlier in this chapter. It is not a "catastrophe education" because students are not dealing with world dangers and other threat scenarios: what is crucial is developing visions of the future. This focus can also be found in De Haan and Harenberg (1999a, 1999b). *Vision orientation* means students learn how to develop visions using knowledge from various domains. It is not "educational utopianism" because, according to Künzli, education for sustainable development cannot solve the sustainability issues the world is facing. Education should not be used for this purpose. We cannot, and should not, expect education to improve the world. As educationalists, we should be realistic and modest. Sustainable

development is not an ideal state of affairs, that can be attained once and for all, but is an ideal that can only be strived for. It is a dynamic process in which new solutions can raise new questions and cause new problems. Sustainability is being continuously sought through sustainable development. Therefore, newly attained conditions must be continuously and critically investigated (Di Giulio, 2004; Künzli, 2007). Furthermore, students should also have the aptitude to challenge, think critically and form judgements regarding the concept, norms or ideal of sustainable development itself (Künzli & Di Giulio, 2007). It is important that students become acquainted with the normativity, relativity and questionability of sustainable development. These arguments should strengthen the educational position of openness.

Künzli and Bertschy's educational principles adequate for citizenship education

Künzli and Bertschy's educational principles adequately address our two problems in education for sustainable development. Since education for sustainable development and a participative approach to citizenship education are similar and share these problems, it is also suited to a participative approach to citizenship education. The advantages of Künzli and Bertschy's approach are its openness regarding the future and the way in which issues can be comprehended and solved, its focus on local as well as global aspects and its fostering of students' reflexivity and autonomy by analysing the normative idea of sustainable development and, lastly, its modesty with regards to its effects. Furthermore, in Künzli and Bertschy's approach, the idea of sustainable development developed by the Brundtland Commission is thoroughly analysed and explicitly discussed. Their educational principles derive from this analysis and the definition of sustainable development, as already mentioned, must itself be subjected to critical scrutiny.

Connected learning and vision orientation are specific educational principles that can be applied to issues pertaining to citizenship education. In connected learning, students learn how to connect different perspectives of different stakeholders regarding a certain issue and how to connect these different interests with each other: learning how to deal with conflicting interests or understanding how changes can affect them. The other educational principle, vision orientation, is particularly interesting because it enables students to think about the future by developing a vision of an ideal future and understanding the consequences of potential solutions on different stakeholders and at different levels (social, economic and ecological; local and global). Furthermore, the idea of participation, as developed by Künzli and Bertschy, occupies a specific place: participation as involvement within the community could play a part, as long as it is pedagogically framed and subordinate to the learning content. Both educationalists conceptualised

'participation' as students being engaged in the topic they are studying.

This implies that, in primary schools, citizenship education could be implemented with controversial and/or societal issues as their central topic and focusing on fostering students' critical thinking skills. Künzli and Bertschy's educational principles give teachers a pedagogical structure to help them handle such issues and indicate how to translate them so that students are able to grasp them. Both educationalists have developed lesson materials in collaboration with teachers and implemented them in primary schools. These types of learning activities were feasible to implement as they only combine two aspects: acquiring real world knowledge and critical thinking skills. Künzli and Bertschy showed in their research, that teachers were not limited by time and by the curriculum. The learning activities were implemented during already existing subjects relating to one's orientation towards oneself and the world, i.e. history, geography, and sciences, which means that the basic structure of the curriculum could remain the same. As already mentioned, Künzli and Bertschy do not strive to instill certain virtues or behaviour but focus on developing students' thinking skills.

Concluding discussion

The mainstream approach to citizenship education deals with different kinds of drawbacks: a practical constraint (as discussed in chapter two), a political constraint (a bias towards a specific idea of democracy – as discussed in chapter three) and a fundamental constraint involving two kinds of problems: strategic and educational, limiting students' autonomy. The strategic problem is due to the openness of the future. The kind of democracy, the kind of participation and the kind of citizens needed in the future is unknown. Furthermore, the effectiveness of such an approach is questionable because it focuses on individual actions: learning how to participate at school does not equate to participating later on as an adult. The educational threat of such an approach, is that it runs counter to reflexivity and developing autonomy. In other words, it does not take into account the openness of students' future. Acquiring prescribed attitudes, values and behaviours limits students' freedom to think about how to shape their own future by exploring possible alternatives of what a good or sustainable life might be or what kind of democracy is required. Simplifying the complexity of reality leads to the same limitations.

Alternative approaches have been analysed, such as that of De Haan and Harenberg 'Shaping Competences' or the social-ecological approach of Kyburz-Graber. Both approaches were dismissed. In the case of De Haan and Harenberg, the strategic concerns were not removed and in Kyburz-Graber's approach, the content was deemed too limited in scope. Künzli and Bertschy's educational principles for education for sustainable development offer a solution for these two problems. The strategic shortcoming is addressed by

introducing students to the complexity of reality. The educational shortcoming is addressed by focusing on fostering students' thinking and reflective skills and enabling them to make their own judgements. The approach developed by Künzli and Bertschy also partially addresses the practical constraint: it is feasibile for teachers and easy to implement in the curriculum. Citizenship education and education for sustainable development are similar as to their subject content and their overarching goal: preparing students to shape the future. Connected learning and vision orientation are specific educational principles that can be used in order to learn how to shape such a future and can be applied to citizenship education. Students are given the thinking tools enabling them to understand complex societal issues later on. Whether and how students will participate in the future cannot be foreseen. Künzli and Bertschy are stringent: education should not be used as an instrument to solve current societal problems.

In Künzli and Bertschy's (2007) research, when implementing the educational principles, teachers pointed out, not only the difficulty of not interfering in the development of their students' judgements by telling them what was good or bad, but also the fact that students were stimulated to explore an issue from different perspectives and reach interesting nuanced judgements. Although most students could handle such topics, some students experienced problems handling the complexity. Further research is necessary in order to map the exact cognitive demands made by connected learning and vision orientation on primary students' thinking. These demands will be discussed in the following chapter. This discussion is important, because the educational principles of Künzli and Bertschy seem to be fruitful for thinking about an adequate approach to citizenship education.

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Chapter five - Coping with complexity: engaging effectively in connected learning and vision orientation[4]

The first author is responsible for the basic ideas as well as for all the draft. The first draft was discussed in depth with the co-author, who criticised the paper and proposed improvements.

Künzli and Bertschy's (2007) approach to education for sustainable development entails that students, individually and together with their peers, need to learn to reflect on all manner of complex societal issues, to take perspective on them (connected learning) and develop future visions (vision orientation). The issues are complex, unpredictable and often controversial and must be dealt with at a global or local level; for example, climate change, water or gene technology. Controversial issues are unsettled, open-ended, they divide experts and society and have no straightforward solutions (QCA, 1998, Day & Brice, 2011). Their complexity, unpredictability and controversy place strong demands on students' knowledge and thinking capacities because students must connect different perspectives on how to analyse these issues, use evidence and relate different kinds of knowledge, in order to understand them and seek potential solutions. The question to be answered in this chapter is whether primary students are able to deal with complex societal problems.

Künzli and Bertschy's (2007) research on learning for sustainable development indicates that primary students can grasp the meaning of complex issues. Based on their educational principles, they have developed lesson materials together with Swiss primary teachers, who have then implemented them in their classroom. Two of these educational principles place particularly strong demands on students' thinking skills: connected learning and vision orientation. Connected learning entails viewing a subject from different angles and constructing relations among these perspectives. Vision orientation is defined as developing hypotheses about the future with regard to the issues students are dealing with. The way these were worked out in the lesson led students to gain insight in the complexity of making justified

[4] Guérin, L.J.F. & Sins, P.H.M. (submitted). *Coping with complexity: engaging effectively in connected learning and vision orientation.*

choices by interrelating stakeholders' various perspectives and different types of knowledge (sciences, geography, history). For example, in their lesson about chocolate, students studied where chocolate comes from, how it is produced, and which stakeholders are involved in the process, what interests the different stakeholders have and how these interests are interrelated, they also engaged in counterfactual thinking (if a certain parameter changed, what would happen) and in thinking about a sustainable future (what would be a win-win situation). Künzli and Bertschy conducted qualitative research into teachers' experiences and students' learning during and after implementing these lessons. Three relevant conclusions of their research were that such an approach is indeed feasible in primary schools (knowledge, time and curriculum), that teachers found it challenging to develop such learning activities and to not impose their own views on their students but let them reach their own judgements.

To determine whether their approach is feasible for implementation in primary education, this chapter aims at gaining more insight into the particular demands that connected learning and vision orientation place on students' cognitive and metacognitive capacities. This gives rise to the following research question: *Are primary students able to deal with complex societal problems?* Addressing this question is useful for two reasons. First, it contributes to improving these two educational principles in primary schools (Künzli, 2007; Bertschy, 2007). Second, and more importantly, this study adds to explorations on how to handle complex topics while taking into consideration the cognitive development of children. To answer these two questions a deliberation between experts was organised.[5]

Method

The expert method used in this research, was an Interacting Group Method (Van de Ven & Delbecq, 1974). Instead of trying to adhere to one particular method, a strategy was chosen that would allow us to benefit optimally from the knowledge expressed by the experts regarding our goals. In our case, the topic under discussion covered a broad range of knowledge, from cognitive development to educational sciences. Furthermore, the topic is potentially controversial, depending on the theoretical tradition the researcher adheres to. The kinds of complexity children can handle and how cognition develops are subject to on-going debate.

For the Interacting Group Method, several leading researchers from relevant fields were invited to participate in a two-day meeting to discuss the two didactical principles illustrated by two lessons that implemented these

[5] This symposium was sponsored by Agentschap NL, of the Dutch Ministry of Economic Affairs and by the Saxion University of Applied Sciences.

principles. The main research question put to the panel of experts was: *Do we ask too much of students, aged between seven and nine, when we engage them in learning activities interrelating different types of knowledge (historical, economic, geographical...), different perspectives from several stakeholders (consumer, farmer, retailer...) and different dimensions (social, economic, ecological - local, global - past, present and future)?*

It was opted for an expert meeting for three reasons. First, an expert meeting allows us[6] to benefit from instant expert knowledge, focusing on the specific thinking capacities required for connected learning and vision orientation and illustrated by concrete lesson materials. Second, asking experts to deliberate, share and reflect on their knowledge in a structured manner, contributes to more nuanced judgements. Finally, an expert meeting is an efficient way of gathering a great deal of information in a short period of time. It was not our ambition to offer a final insight into cognitive developmental capacities, but we devised the expert meeting simply as a method of efficiently acquiring relevant expert support or nonsupport for the feasibility of the two educational principles. The experts were invited in order for us to efficiently gain insight into the current state of knowledge regarding relevant aspects of cognitive development, using this as an alternative for an extensive study of an extremely vast amount of literature.

Participants

There are several requirements involved in defining expert panels and their organisation: the experts' expertise and their background, recruitment of experts, defining the structure of the meeting and the experts' input and recruitment of moderators (Slocum, 2006a, 2006b). The research question, together with the two educational principles determined the selection of experts. Specific research fields were selected: cognition, social cognition, neuro-cognition and educational sciences. Literature on (social) cognitive development, educational sciences and the relatively new field of neuro-cognition were studied by consulting standard references on cognitive development and research databases including Webscience, Psychinfo and ERIC. Keywords such as: thinking capacities, inductive/deductive thinking, causal thinking, counterfactual thinking and perspective taking were used. 17 experts were listed, based on their track record and research expertise. Then, they were contacted by email with an explanation of the project's purpose, articulating our questions and requesting them to name referents in case (a) it was not possible for them to attend or (b) they believed another expert to be better equipped to address our questions. From the 17 contacted, 4 joined the expert meeting, 9 either failed to respond or were not interested in

[6] "we" refers to myself and the co-author.

participating and 4 referred us to 5 other experts. This procedure resulted in a panel consisting of 8[7] experts who were then invited for a two-day meeting, chaired by two philosophers of education: Professor Standish from the UCL Institute of Education and Phillips, Emeritus Professor from Stanford, whose role it was to lead the discussions, monitor their quality and, at the end of the day, to provide a synthesis of the major points discussed. The experts attending the meeting have expertise in areas considered relevant for judging the feasibility of the two principles. Beck and Robinson have renowned expertise on counterfactual thinking and metacognition, conducting research on children's hypothetical thinking and handling uncertainty. This was relevant for reflecting on vision orientation. Hutto's expertise on the development of theory of mind, psychology, and cognitive sciences in general, was necessary with regard to connected learning and taking the perspective of relevant actors. Learning through argumentation and gaining epistemological understanding was Iordanou's expertise. Her knowledge was essential in order to elaborate on the skills students need when they engage in collaborative argumentation about potential futures. Opfer's research on misconceptions and children's conceptual changes could help us reflect on possible pitfalls of learning activities students need to engage in. Furthermore, the learning activities capitalise on reasoning skills. Therefore, we invited Mercer, as he is an expert on the development of children's thinking and especially on how they reason together. Tolmie and Stern's research on the role of knowledge in relation to children's thinking capacities was relevant in order for us to reflect on the ways in which children integrate different kinds of knowledge. Künzli and Bertschy, the developers of our chosen educational approach, also attended the meeting to answer questions concerning the lessons and their implementation.

Procedure

Beforehand, the key question relating to two educational principles was defined, along with sub-questions. We focused on ages 7-9. Two main reasons for this choice were: first, this age range represents an important stage in cognitive development; second, if children of that age are incapable of dealing with such complex issues, then the same will also apply to younger

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[7] **S. R. Beck,** School of Psychology, University of Birmingham; **D. Hutto,** School of Humanities, University of Hertforshire**; K. Iordanou**, Department of Psychology, Neapolis University Pafos; **N. Mercer**, Faculty of Education, University of Cambridge; **J. E. Opfer,** Department of Psychology, The Ohio State University; **E. Stern,** ETH Zürich, Institut für Verhaltenswissenschaften; **E.J. Robinson**, Department of Psychology, Warwick University; **A. Tolmie**, Department of Psychology and Human Development, Institute of Education University of London.

children. This would mean that such topics could only be taught at the end of primary school, or later.

The eight experts were asked to write a position paper, addressing the key question and using two synopses of concrete lesson materials in which connected learning and vision orientation were developed. More detailed information on the educational principles was made available to them on a webpage. They were asked to send in their papers one week prior to the meeting. Subsequently, these papers were forwarded to all the experts, informing them of each other's positions and hence allowing them to prepare their discussions. The first day of the meeting was devoted to the theme "connected learning". To stimulate discussion among the experts, each was invited to deliver a presentation, followed by discussion, giving each expert equal opportunity to articulate his/her point of view. At the middle and end of the day, the Chairman provided recap, emphasising the most relevant points discussed. The second day was devoted to "vision orientation", starting with a paper by Beck, Robinson, Caroll and Apperly (2006) on children's counterfactual thinking and future hypothetical thinking. Beck and Robinson gave a one-hour presentation revealing their research results.

Each expert was invited to respond to the presentation and, drawing on his own expertise, to deepen, criticise or ask further questions about the topic. The reasons for changing the structure of the meeting on the second day were: first for the sake of variation and, second, because of Beck and Robinson's specialisation in children's counterfactual and hypothetical thinking. At the end of the second day, a concluding discussion was held on the two educational principles. In this concluding discussion a consensus was reached on how to answer the research questions.

Short description of the lesson 'Toy'

Two lessons, Toy and Chocolate, in which both educational principles were executed, were chosen. The reason for choosing these two lessons was that they were considered exemplary for the two educational principles and are well developed. This choice was made after having looked at the way the principles where developed in several lessons, together with Künzli and Bertschy. The toy lesson was implemented in two classes and the chocolate lesson in four. Both lessons lasted ten weeks (four hours per week). The starting point of the toy lesson was the following question: "What is a good toy?" and for the chocolate lesson: "What if chocolate were free?" In the following, a short illustration of how both principles were implemented in the toy lesson is offered. We illustrate the two educational principles based on this one example, seeing as in the lessons about chocolate, the principles were implemented in the same way. See Appendix one for a detailed description.

Connected learning (Vernetzendes Lernen)

The experts were given the following definition of connected learning along with a description of the lessons: Connected learning means looking at a subject from different perspectives and inter-relating them. This interrelatedness is to be achieved in three fields: (a) the connection between "present-day and future": What impact will our decisions have on today's generation and on later generations? (b) The network of ecological, economic and socio-cultural dimensions: Are our decisions compatible with important economic, ecological, socio-cultural and general social ideas? Which competing and corresponding interests of stakeholders are to be found? (c) The local and global connections: What impact will our decisions have on people in my neighbourhood, in other countries, on public welfare?

The children analysed different stakeholders' interests (e.g. consumers, toy department manager, Chinese toy factory director) in relation to their role in the supply chain. Its purpose is that students should learn to put themselves in the stakeholders' place. During the lessons, they explored the theme's global connections. The production and business conditions inland and abroad were discussed. Then, the situation of Chinese migrant workers was also investigated. Dealing with the stakeholders and exploring their interests took place in real-life situations (asking question to a toy shop owner) as well as in the classroom using various materials and tutorials. As visual support, for example, the teacher used the blackboard; every new stakeholder was added to the board, along with his interests, and brought into relation with those already known, in the form of a network, which would grow continuously (see picture 1). Thus, in the course of the lesson, the theme's different composite elements were interrelated. The acquired knowledge was constantly needed to throw light on the economic, socio-cultural and ecological, as well as local, global and future consequences of decisions for the different stakeholders. Positive and negative consequences needed careful consideration in order to make knowledgeable, reasonable and fair decisions. Towards the end of the lessons, a role-play was performed to deepen the knowledge of various implications of certain situations on the different stakeholders. Following the role-play, the children had to define their own toy buying criteria and justify them.

Picture 1. *Network of stakeholders*

Vision orientation (Visionsorientierung)

The following definition of vision orientation – developing hypotheses regarding actions needed to attain a sustainable future - was given to the experts along with specific questions: What future do we want, what future is possible and how can we realise it? This means being able: (1) to elaborate desired future perspectives. The desired future situation must be realistic, taking the present as a point of departure, while being open and creative: everything is possible; (2) to identify the difference between the actual situation and the desired one. Students must be able to record the differences and similarities between current and future situations; (3) to evaluate the implementation of the desired future. Students must be able to envision the consequences of the new future scenario for the various stakeholders and for the whole chain of stakeholders.

In theory, the "Toy" theme lessons should guide the students towards desired societal development. Together, they developed ideas for the future and discussed them in class: for instance, they looked at a scenario in which toys were no longer made of plastic and examined the consequences: economic, socio-cultural and ecological, on local and global levels, and for the

future. In class, different creative techniques were used to inspire innovative ideas such as the "what … if game". The teacher encouraged discussions on the following questions: What if we were not allowed to play anymore? What would that mean for me?

Data analyses

The presentations and discussions of the two-day meeting were video recorded and transcribed. The goal of our study was to map the demands made by the two educational principles and to understand to what extent and under what conditions students could meet them. Therefore, it was necessary to specify those demands. For the data analysis, the qualitative data analysis strategy of The Grounded Theory was used: open, axial and selective coding (Boeije, 2010). The choice for this analysis procedure was its openness, using an emerging data strategy. The conclusions and recommendations of the experts provided a framework with which to answer the research questions. The transcripts were analysed in NVIVO 9. During open coding, the transcripts were closely read, segmented into fragments and organised around 29 codes. During axial coding, each code was re-explored by reading all fragments in each code, line by line, to establish whether they were placed under the right code. The codes were described and were merged when they captured the same idea. After axial coding, the fragments were again analysed within their codes. The coding tree was hierarchically re-organised resulting in 7 codes (Constraints, Curriculum, Pedagogics, Students' skills, Teachers' skills, Developmental Support and Threats) and 19 sub-codes (such as for Constraints: Encoding, Inhibition, Cognitive load and Emotion). See appendix two for the code-tree at the end of the axial phase, appendix three for a detailed account of one sub-code and all its fragments and appendix four for all sub-codes with one example of a fragment. Then, we embarked on the phase of selective coding, in which a central theme is usually chosen and further developed (Gibbs, 2007). Boeije (2010) was followed who defines selective coding as clustering the codes in overarching core categories and interrelating them. A synthesis of the position papers sent by the experts was drawn up, which supplemented the analysis results of the presentation and discussion. Through this integration, the experts could highlight the point of view explicated in their papers during the presentations.

During the selective coding phase, the codes were organised around 5 core categories: Students' thinking skills, Teachers' skills, Curriculum, Factors hindering thinking skills, Factors supporting them, Pedagogics and Threats. The two educational principles place demands on (1) students' thinking skills, (2) teacher skills and (3) the curriculum. Central to our analysis were the demands made on students' thinking skills and how to reduce them in order to engage students in connected learning and vision orientation. Depicting

student related factors which either supported or hindered thinking skills was relevant to inform teachers, who would then be able to take them into account while developing and implementing the lessons. Another core category was the pedagogics teachers can use as a resource to support the development of students' thinking skills in order to alleviate some of the hindering factors. However, mastering pedagogics, such as collaborative learning, puts an extra burden on teachers. Dangers inherent to developing such complex lessons were depicted. Once the core categories had been defined, the corresponding codes were analysed and synthesised as to their relationship to students' thinking skills. To assess the reliability of the demands and conditions we obtained in our analyses, we sent the transcripts and synthesis to the experts and invited feedback. All experts agreed with the content of the transcriptions as well as with the synthesis. They gave their express permission for the publication of these. Furthermore, the analysis procedure and description of the data analysis section was discussed with Boeije. In the following section, the results will be discussed.

Results

According to the experts, connected learning and vision orientation deal with complex problems with a multitude of undetermined causes and an infinite number of influencing factors. There is no linear causal chain: 'if you do this, then this will happen' as Hutto and Opfer stated (d[8]). In this section, the different core categories are discussed, as well as how, according to the experts, students can still handle such complex issues, and under what conditions. The first core category to be discussed will be students' thinking skills. Then student-related factors, both supportive and hindering, will be detailed. Finally, Pedagogics, Teacher skills, Curriculum and Threats will be briefly discussed.

Student's thinking skills

Taking perspectives

A central aspect of connected learning and vision orientation is that students take the different stakeholders' perspectives, understand their interests and inter-relate them. The definition of the task required more than just gathering factual knowledge about the different stakeholders, it also involved trying to understand the stakeholders' state of mind, as Hutto (d) rephrased it. The major issues discussed were the level of depth students could reach in understanding perspectives and whether they were able to understand conflicting perspectives. Regarding depth of understanding, several concerns

[8] d=discussion

were raised. The first addresses whether it is possible for students to truly understand the position of the stakeholders:

> The issue of depth comes into it and as I put it here, it's possible that one is able not only to put one's self in one else's shoes, but also that one has walked in them for some time before you actually get a sense that we are really getting some kind of resonant understanding of the others' perspectives. (DHutto1-383[9])

Therefore, truly understanding a stakeholder seems an unrealistic enterprise. Nevertheless, students can acquire a rich picture of stakeholders' interests through role-play, books, different narratives or interviewing real-life stakeholders. The experts, during the discussion, regard these materials and methods as relevant for fostering perspective taking and gaining a certain depth of understanding about the stakeholders.

> The story is offering a scaffold and it is scaffolding for a sort of activity which children would not be able to do on their own. (NMercer1-209)

There were some concerns though, Opfer (d), for example, warned that using such methods and materials might lead to simplification, thus stereotyping the stakeholders' perspectives.

> ...farmers have divergent interests, they don't have the same interests, the same thing for factory owners, they don't all have identical interests either
>
> ... there's variability among farmers, factory owners and whatever. What I'm wondering is when children play these roles: do these roles end up being stereotype roles or do they reflect actual diversity that exists within the actual fulfilment of the role in itself ? (JOpfer1-516)

> I think to set that goal, for children from 7-9 to understand the subtlety of variety of the farmers' different view-points, is unrealistic and the point is

[9] 1=First day; 2= second day; number=sentence number

> we should not be expecting that because we are on a learning trajectory here… (NMercer1-527)

Stereotyping stakeholders would undermine the learning goal of the two educational principles, since, for both, understanding the variety of different stakeholders' positions is crucial. As Hutto (d) and Mercer (d) argued, it is not primarily about fully understanding the perspectives, but about helping students become aware of their complexity in a scaffolded manner. Books and narratives can be used as scaffold (Mercer, d).

Another concern was the role of imagination versus reality in trying to map the stakeholder's interests when using these methods and materials. Mercer showed a video of students engaging in a similar task, discussing the pros and cons of building a pier linking Morag's Island to the mainland.

> Do you care about accuracy? This is an imaginative thing as far as they are concerned. They've never actually been on an island and had any experience of developments of piers in real life. So, I am just imagining myself that they are saying different things and they are trying to take on different roles; that they might be completely unrelated to reality… So, it's not just an act of imagination is it, it's an act of realistic imagination, if you want. (LRobinson1-164)

> Could I just drop in on that because I think it's…to my mind, the issue is not setting imagination versus realism what children have to start with is some sense of what the actual kind of possibilities might be. So, there is a kind of work of the imagination in there and it's only once when they've actually got to the point of being able to conjecture different possibilities that they can start then to explore which of them might be actually more accurate mappings… (ATolmie1-179)

Along with this problem, Beck (d) and Hutto (d) stressed that primary students are unlikely to take the stakeholder's perspectives but rather to build a composite picture of what they would like to happen. Therefore, it might look as though they are taking the stakeholder's perspective, while actually they are not or are simply, as Opfer (d) puts it, being overoptimistic or unrealistic.

The second issue dealt with conflicting perspectives, quite a difficult

task for students of that age. Perspective taking requires a well-developed second order of theory of mind (ToM) (Tolmie, p[10]; Hutto, p). As Tolmie (p) explains about second level ToM: "This more sophisticated level of mental representation would seem to be required if the focus is on students' ability to consider the *conflicting* interests of others, since this demands recognition not just of what others' viewpoints are, but a meta-level awareness of how these fit together, and how different stakeholders might view the perspectives of others. It is only by adopting a second order perspective that the dimension of conflict becomes explicitly revealed." The development of second level of ToM is thought to start evolving at age six and progresses throughout primary school. That it evolves does not mean that students of that age cannot do it; nearly all experts warn against placing too much emphasis on thinking in age-appropriate developmental stages:

> So, it's a mistake to ask if by such and such an age, a child would have this or that capacity determinately in place … so what we are finding this broad difference. What we need to look at as well is what supporting features are in the set-ups or conditions for actually bringing on competence or to what degree we have it. And so, it's going to be a much more degree based moral and it's going to be more situated and contextualised: They have this ability to this extent under these conditions for this purpose, etc. (DHutto1-358)

The task of taking stakeholders' perspectives seems difficult for 7-9-year olds, but possible, according to the experts, through well-arranged lessons. To deepen students' understanding of a stakeholder and decrease task demands, teachers must focus on the stakeholder and offer insight into his perspectives through multiple stories, narratives and books, used by the teacher as a scaffold. The richness of the methods and materials can help students comprehend the stakeholder's perspective, gain knowledge about his possible interests and understand conflicting interests. Teachers ought to be aware of the risk of stereotyping and try to add nuance to the image students are building, as well as offering a realistic picture of the stakeholder's position and possible interests. Moreover, building the network of the different stakeholders on the blackboard is seen as a relevant visual support that can decrease the task's demands and help students to map the stakeholders' conflicting interests.

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[10] p=preparation paper

Epistemological understanding and argumentation skills

Robinson (d) pointed out that second order of ToM does not suffice for students to engage in such tasks; a well-developed epistemological understanding is also required. Students must understand the limits of knowledge in order to evaluate evidence and attain balanced judgements on the issue at hand. These issues, as stated earlier, require the integration of different kinds of knowledge as well as ethical consideration.

> When I first read the material we were sent, what really struck me was how similar the problems were to the complex problems that are used by people who do research in epistemic stances. By epistemic stances, we just mean a conception of knowledge, a representation of knowledge. What is a good apple, what is a good toy? What is characteristic of the complex problems used in epistemic stance literature is that there are different perspectives involved; that there are a number of different variables to interrelate and most important end, that we should focus on, that there is no right answer to be discovered in the external world, no simple, one correct answer. It seems to me that these are the characteristics of these problems. (LRobinson1-1151)

This entails, as Hutto (d) pointed out, that primary students are able to carry out a metacognitive evaluation of their knowledge and the quality of information they receive. The doubts relate to the question whether students are capable of elaborate epistemological understanding. According to Iordanou's research (d), there are various epistemological stances students can take, depending on the scenarios at hand, the way they are framed, and the questions asked. What Iordanou (d) found in her research, is that, in social domains, students tend to have a multiple epistemological stance, whereas in scientific domains an absolutist or relativist stance (as used by Deanna Kuhn) is more common. In Tolmie's research (d), students share perspectives through dialogue and assess them in the light of evidence. For example, in the sinking and floating problem, Tolmie (d) witnessed 8-year olds developing an evaluative stance without knowing it. Iordanou (d) supports this view:

> ... so, when you change the scenario a little bit, we change the questions, then we can identify some evaluativist beliefs, even with younger

> students .... students need to get involved in extended activities which would make them think of different perspectives and discussion would be one way to go...(KIordanou1-1272)

Iordanou (d) suggested that epistemological beliefs support argumentation, as holding a well-developed epistemological understanding would lead to more nuanced arguments. In the tasks, students must also learn how to argue, understand and scrutinise others' positions. Hutto (d) stressed that learning how to argue is not only an exercise in explaining one's own position and understanding those of others, but a synthesis of different positions resulting in a better explanation than the one originally held. Iordanou's research (p) demonstrated that students are not always able to take others' arguments into consideration, as they are mainly focused on their own point of view; this is called the myside bias, and is difficult to correct, requiring practice to overcome such bias. Kuhn's work (as cited by Iordanou, d, p) showed students enrolled in a three-year philosophy course (twice a week) displaying some progress in argumentation and epistemological beliefs. This means these argumentation skills must be learnt, as they do not develop automatically, but require time and effort. Students have also to be confronted with different kinds of knowledge, understand the limits of knowledge and how the same facts can be used in opposing arguments.

Counterfactual thinking

In vision orientation, students have to develop future scenarios and in connected learning, they are required to change a parameter in the chain of stakeholders to work out what the consequences might be; this means being asked to carry out counterfactual thinking (if... then) and hypothesise about future consequences. Beck and Robinson's (p, d) research on children's counterfactual thinking and their reflection on hypothetical future scenarios, showed that, at age 5, they are already good at seeing the cause or connection between what has happened in the past and how the present has worked out and between now and speculations for the future. What is relevant in the tasks is that students are able to recognise that there are multiple possibilities, each with different consequences, whether in the past or in the future.

> But when you think about counterfactuals and future hypotheticals it's not enough just to recognise that there is this one continuous time-line that is going on, there are actually lots of lines that can come off this and lots of other things that could have happened in the past. (SBeck2-98)

The problem is that students may see thinking about a hypothetical future as a guessing game, which would undermine the purpose of vision orientation (Opfer, d). As the literature shows, age 5-6 children are poor at thinking about multiple possibilities. Beck and Robinson's research (p, d), reveals that children are better at speculating about the future than at counterfactual thinking about the past. As Opfer (d) mentioned, this could be explained by an inhibition problem: when engaging in counterfactuals about the past, children need to inhibit what actually occurred, to then consider what could have happened. This would mean that vision orientation should be easier for children than connected learning as the former makes no demands on inhibition; however, developing future scenarios means dealing with undetermined factors.

Opfer (d) compared these tasks to solving a complex problem. The long tradition of research on problem solving tasks, shows that children use a "mixture of wisdom and folly" (Opfer, d) and are often overly optimistic. Opfer (d) used the Tower of Hanoi-experiment as a metaphor demonstrating the complexity of vision orientation. In this mathematical game, there is an initial state, a series of pegs with disks of different sizes: large, medium and small. The goal is to move all the disks to the other side; it's simply a transformation. There are two basic rules: first, move only one disk at a time and second, never put a larger disk on top of a smaller one. Opfer (d) compared this game to the vision orientation task: students are asked to imagine a more sustainable future.

> So that is the problem with the Tower of Hanoi. It has all the basic elements of vision orientation. You have an initial state of the world, you have a future state of the world and the child's goal is to get from one point to the next. (JOPfer, 2-1142)

In this vision orientation, the goals and rules are unknown while the initial state is partially known. These three problems make vision orientation an impossible task to solve: as if the child is faced with not one Tower of Hanoi task, but an almost open-ended number of Tower of Hanoi problems.

However, Tolmie (p, d) stressed that vision orientation does not really call upon imagining future scenarios out of the blue. Students are expected to take the existing world as a starting point. This involves the development of causal understanding. Tolmie (p, d) distinguished two kinds of causal understanding: perceptual and explanatory causality. Perceptual causality is easier because the students can experience this, whereas explanatory causality

is abstract and more difficult for them to grasp.

> You cannot see causation, what you have to do is to have a mental construct of what the process is which you then project onto the event as you witness it. That is the kind of marriage that we are talking about. (ATolmie2-798)

This has implications for the pedagogics used. Teachers have to make these abstract causalities explicit. All experts (d) agreed that asking students to develop future scenarios regarding complex situations, such as the ones described in the vision orientation task, is unrealistic and impossible, even for adults. It is not only about handling complex counterfactuals (Hutto, d). Pupils are asked to make predictions about an uncertain future based on very limited knowledge. The fact that it is impossible does not mean it is not worthwhile teaching. The experts concluded that it perhaps suffices when students learn that, for a single issue, there are different alternatives to be considered and possible consequences to be tracked.

Factors hindering students' thinking skills

Regarding the constraints of the two educational principles, three major difficulties were emphasised: encoding problems, inhibition and cognitive (over)load. The first difficulties concern "*limited encoding of problems, of solutions and a failure to integrate variables*". Opfer (p, d) called this encoding constraint "*insidious sin*" because it is hard to identify. Limited encoding can lead to misconceptions which are not always resolved by prompting. As Opfer (p) stated "an important limitation on younger children's problem-solving is a failure to encode one of the critical dimensions (e.g. distance) for solving the problem". Stern (p) and Opfer (p, d) warned against developing misconceptions because they are hard to correct.

A second difficulty is that they put high demands on inhibition. When dealing with various perspectives, students must inhibit those of other stakeholders when considering a particular stakeholder. They must also inhibit possible solutions when considering different alternatives. Such difficulties are easier for teachers to identify than encoding problems and even though inhibition is linked to the development of the frontal cortex, the teacher can stretch this capacity (Opfer, d; Tolmie, d).

Thirdly, the connected learning tasks and vision orientation are challenging, requiring sustained cognitive effort and potentially leading to cognitive overload. This is due to the limited capacity of working memory, which can be stretched as knowledge of the content increases (Tolmie, d). According to Stern (p): "What distinguishes children from adults" is not

"better thinking" but "better knowledge". So, the fact that, as Stern (p) puts it, students are "universal novice", places a stronger constraint on cognitive capacities. These difficulties can be reduced if the task's complexity is presented in a piecemeal fashion and students are given time to process and reflect on it (Iordanou, d; Stern, d). Iordanou (d) emphasised the problem of working with multiple variables and their demands on working memory. Students, and even adults, have difficulty simultaneously manipulating different variables. Her research showed that even if students could identify these variables one by one during a science task, they had trouble recalling them all at the end of the task. Even with the help of a computer or charts to visualise or aid memorisation, students still have difficulty manipulating multiple variables. This did improve with practice but remained a problem.

> The basic framework, which is operating here, I think, is that when you are first encountering the kinds of manipulations and knowledge that need to be made part of a process of problem solving, the load is substantially higher because you don't have any kind of particular strategies worked out for dealing with that. So, you've got to actually kind of operate some kind of sequence of exploring what the strategies might be that might be effective at the same time retaining the information so that the load is substantially higher. Once, you've got good strategies worked out for dealing with particular types of information the kinds of manipulations, then the memory load drops as a result of that, because you simply plug in the strategies that you already know are actually effective in that context. (ATolmie1-58)

These three problems can be alleviated by acquiring sufficient knowledge on the topic, allowing sufficient time to integrate new knowledge and by simplifying the task so that it still reflects the complexities of the relevant reality, without asking too much of the children, as Stern (d, p) stressed. Then inhibition, encoding and workload can decrease.

Factors supporting students' thinking skills

Developmental factors can help students grasp the demands made by connected learning and vision orientation. ToM, language development and causal thinking, when well developed, can, to a certain extent, decrease cognitive constraints, but, if not well developed, can also increase them. The focus lies on the role of language. Although age is considered relevant

for the development of second order theory of mind, it fails to explain its developmental variation among children. Language development seems better suited to explain this variation. Tolmie (p) and Hutto (p) referred to research, mapping these differences. According to Hutto, (p) "Nicolopoulou and Richner (2007) present evidence that if children are allowed to engage in spontaneous storytelling, a richer understanding of others can be seen in their narrative depictions – even by age 5" and Tolmie (p) cited a meta-analysis by Milligan, Astington and Dack (2007) that "has found a consistent moderate to strong relationship between children's language competencies and performance on false belief tasks, with the relationship being stronger where the false belief measures involved multiple tasks." It seems that a rich language context, in which students are given the words enabling them to map stakeholder perspectives, would provide the resources to perform the task. Mercer and Tolmie (p, d) also pointed out the role of language in the development of understanding others through rich dialogue and daily conversation.

Pedagogics

Collaborative learning, along with scaffolding, can offer useful pedagogical support for teachers to (1) enhance students' thinking skills and (2) diminish cognitive constraints. According to Tolmie and Mercer (d), collaborative working could serve to reduce the individual cognitive load through sharing perspectives, perceptions and strategies. It can increase awareness of contrasting perspectives and dialogue among students, giving the opportunity to adjust them in the course of the dialogue, while gaining deeper understanding. As Mercer (d) stated, students have to be skilled in order to work together.

> Putting kids to work together, without being prepared or structured, will not help. When kids work together, it is often a waste of time: they lose track of what they were doing or lose interest. (NMercer1-1577)

Tolmie (d) stressed that students need reasons to speak in group discussions. One method is to ask them to make private predictions and discuss these. This means teachers have to invest in helping students to generate points of view, by working with them, helping them identify things that matter. Furthermore, teachers must be well-trained in organising and supporting collaborative work. For example, teachers should consider students' prior beliefs and knowledge when forming groups; group size is also important and should be between 3 and 5 students.

Both Mercer (d) and Tolmie (d) stated that through scaffolding techniques, teachers can stretch students' capacities and help them improve

the quality of group discussion. The task they are working on must also be well-designed, using appropriate learning materials. Opfer (d) pointed out that the success of collaborative working depends on the motivation of group members and that students with misconceptions may influence other group members. According to Tolmie (d), this problem can be tackled by letting students reach agreement on the criteria of a good discussion and other rules affecting their collaboration. In short, collaborative working could be an effective pedagogical approach.

Teachers' skills

Besides skills needed to organise collaborative work and scaffolding the students, teachers must also realise the importance of developing students' discursive skills. This entails building their relevant vocabulary in order to carry the experience and manipulate ideas. In addition, Robinson (p, d) underlined the need for teachers to have well-developed epistemological beliefs in order for them to understand the complexity of societal issues. They must be well equipped with knowledge and thinking skills in order to design appropriate tasks, to tackle these in a piecemeal fashion and to scaffold them so that students can gradually gain insight into the complexities of the real world. Teachers must also be able to develop the kind of thinking skills students need to complete the tasks.

> The crucial thing is to have well designed interventions where teachers realise that they need to develop these thinking and discursive skills in children. (NMercer1-1429)

Curriculum

Experts agreed that such lessons place high demands on thinking skills and are therefore challenging and take time to develop, requiring sustained pedagogical effort. This implies that the curriculum of such programmes must be well thought out, with adapted learning goals taking into account students' cognitive development while stretching this cognitive potential. Robinson (d) asked why one would start such a programme so early on and not wait until students have gained the necessary cognitive maturity. Hutto (d) pointed out that doing so would imply a sort of roll-out programme for cognitive development.

> ...if you thought, there are two separate questions... One... is it the case that these capacities really are on roll out program that is anything that goes on in the environment ... so that would be one story ...

> so it could be the trigger … I think that it could be at certain ages that they come on board with capacities, if that was true then there is really no point in trying to do this too soon … and that's the way of reflecting it. The other version is that is not the true picture of how cognition really works… there is actually scaffolded so that the environment makes it more directive in the capacity and engenders it … therefore putting this in earlier where you can would be sensible and then the secondary question is what are the possible ways in which you can do that and what kind of activities and what features do they have to have. (DHutto1-2161)

Hutto (d) stressed, as mentioned earlier, that environmental factors, such as ToM, can foster development. For other cognitive functions such as inhibition, maturation plays a relevant role (Opfer, d). According to Stern (p, d), children's cognitive development is flexible and less relevant than the learning context children have experienced.

> And of course, we all know that during the entire life span the most important thing for learning is education… students are able to exploit working memory functions by using good knowledge representation, by using symbols which are less demanding when it comes to capacity. For instance, category names, manuals, furniture and so on, we assess working memory capacity and free resources for other activities and this is, of course, very true for abstract concepts, the learning at school is to develop abstract concepts which help us in complex thinking because if we have good knowledge representation we can use fewer resources for reasoning processes. (EStern1-962)

Correlating children's age with their capabilities, Stern (p) stated, represents a misconception of the nature of learning. Consequently, teachers must create a well-arranged learning environment: "a clear learning context that gives the opportunity to develop a clear understanding." Stern (p).

Another question raised was whether specific lessons were necessary or whether liberal education was enough. According to Mercer (d), Tolmie (d) and Opfer (d) the specific thinking skills students are asked to engage in are not the ones catered for within conventional subject content. Opfer (d)

referred to the literature on judgement and decision making requiring the development of specific skills and stressed that knowledge alone is probably not enough because it has to be applied to a particular context. Furthermore, the thinking skills students have to develop need to be practised in a cross-curricular fashion. Teachers tend to concentrate on their own subject matter. This implies that teaching societal issues calls for other practices than merely teaching conventional subject matter, such as project-based learning.

Threats

Tolmie and Mercer (d) pointed out that such an educational programme should take place over time, and that complexity should increase with time. Failing to develop a programme with well-defined staged learning goals, could lead to an oversimplification of reality, with students potentially developing a naive view of the world and how societal problems can be handled or solved.

> I want to underscore this again and I want to keep underscoring it what would be the most dangerous thing for me is you know that the old adage, the little noise, the dangerous thing a little too much confidence about what could come out of this if you encourage kids to be over-confident having gone to this in primary school about the dangers of how to handle these problems and did not leave them a good sense of how difficult these would be, that would be even much more dangerous for our futures than currently things are. (DHutto2-1333)

Robinson (d) also warned that overestimating what students are learning could lead to developing too complex tasks. Mercer (d) sees this as a classic educational problem: teaching requires simplification to enable students to understand the concepts being taught. One relevant conclusion was that connected learning should be implemented within a well-defined pedagogical framework to allow the students to become acquainted with the complexity of reality step by step.

Concluding discussion

According to the experts, students aged seven to nine can learn to take the different perspectives of stakeholders, understand their interests and inter-relate them, argue about them and engage in more sophisticated counterfactual thinking. In other words, students can engage in connected learning tasks under certain conditions, which are: well-arranged lessons, well-chosen pedagogics, methods and materials and sufficient teachers' skills. The experts

were less optimistic about the possibilities to develop future scenarios because of the nature of the problems students are dealing with. This brings us to the two kinds of problems discussed. The first dealt with the demands that such tasks put on students' cognitive capacities and the second was inherent to the subject under study. The issues students have to think about are difficult to solve, even for adults, because of the multitude of factors influencing the outcome of potential solutions, with many of these being undetermined. This complexity could lead teachers to oversimplify these issues and lead students to construe misconceptions on how these problems should be solved. The experts suggested the tasks should prepare students to gain insight into the complexity of reality and such issues need a lot of thinking. Teachers are required to introduce students to such issues in a piecemeal fashion. To facilitate demanding tasks leading to cognitive overload, encoding difficulties and inhibition problems, two major resources were discussed: collaborative learning and scaffolding. Collaborative learning can decrease cognitive load due to students sharing ideas and stakeholders' perspectives, but this requires both students and teachers to be well equipped to work in groups and share their thoughts. Through scaffolding, the teacher can help students, stepwise, to gain an understanding of the tasks at hand. Another conclusion was that students can indeed learn to think about complex issues. However, these thinking skills are hard to learn and do not develop by themselves. They need to be practised in different contexts and on different topics. To sum up, connected learning will be retained as a useful educational principle. Vision orientation, on the other hand, is too demanding for primary level students, asking them to deal with too many unforeseeable variables.

Although some implications for teachers' knowledge and skills, and for the curriculum, were already discussed in the results section, two more need to be mentioned. The first implication concerns the development of a curriculum of which the content should evolve towards increasing complexity over time. As Künzli (2007) points out, the problem is that such issues do not deal with just one content domain, but with several. Therefore, the development of a stepwise curriculum would seem a difficult enterprise. A second implication, that is inherent to cross-curricular activities, is that there has to be a mixture of pedagogical approaches: pedagogical approaches associated with different subject matter need to be combined with more general pedagogical approaches, such as collaborative learning or scaffolding, while also integrating the educational principles developed by Künzli and Bertschy. This means, that the demands made on teachers are not limited to possessing an adequate level of knowledge on the issue coupled with a well-developed epistemological understanding. Teachers must also be able to create a complex marriage of various pedagogical approaches in order to handle these issues satisfactorily. As research has already shown, teachers

are generally not comfortable teaching controversial issues, due to a lack of content knowledge and skills in different pedagogical approaches (Guérin, et al., 2013). This implies that teachers must receive adequate training.

In my framework, I consider citizenship education as learning how to solve societal issues. If primary students are able to gain insight into complex societal issues, this means that citizenship education might also concentrate on teaching how to understand and try to find solutions for such complex issues. This conclusion has two major practical implications. First, connected learning will be retained as a suitable educational principle, while other educational principles will have to be defined matching the chosen concepts of democracy and citizenship. As vision orientation is too abstract and complex, it will need to be modified to be feasible. Secondly, other paths can be taken to investigate the content of a curriculum for citizenship education. Thirdly, teachers' competencies need to be updated in order to teach such citizenship education. In the next chapter, a specific theory of citizenship will be chosen, justified and translated into educational principles and this theory will then be illustrated with an example.

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Chapter Six - Group problem solving as Citizenship Education: from theory to learning activities[11]

In the previous two chapters, it was demonstrated that Künzli and Bertschy's approach, with its content of exploring and understanding societal issues, is not subject to the fundamental constraint and is also feasible for schools to implement (time and curriculum constraints) as well as being feasible with regard to students' cognitive capacities. Nevertheless, this approach remains demanding for teachers, especially regarding their knowledge and epistemic understanding. Furthermore, in chapter three, it was demonstrated that not explicating the chosen theory of democracy and citizenship leads to the promotion of a certain kind of citizenship and to ruling out other kinds of citizenship (political constraint). This hidden curriculum inhibits students' autonomy as they are only confronted with one idea of 'good citizenship'. Concepts as democracy and citizenship are controversial and should be treated as such in the curriculum. There are different concepts of democracy and citizenship all of which can be supported by reasonable arguments. One major finding in chapter three was that it is important to choose a specific theory of citizenship. Claiming to belong to a certain model, such as liberalism or republicanism, is too vague due to the variations within each current. Therefore, one must be specific when using a theoretical framework. Translating such a theoretical framework into suitable learning activities is a complex enterprise; several steps have to be taken.

First, the chosen epistemic theory of deliberative democracy will be described and justified. It will be argued that this framework meets the political and fundamental constraints. Group problem solving will be defined as the core competency of citizenship. Then, the demands such a democracy makes on citizens will be detailed. This enables to determine the aims of citizenship education and define the idea of a 'good citizen' held by the chosen theory. In order to develop lessons, further constituents that guide this translation have to be defined: educational principles, general learning goals, detailed learning goals, organisation of the tasks, content and answering the questions of 'where' and 'who' (Künzli, 2007). General learning goals and educational

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principles are the most abstract elements, they determine the framework and give direction to the lessons. They derive directly from the analysis of what such a democracy requires of its citizens. Then, the organisation of the tasks makes it possible to sequence the different phases of the lessons, which allows students to work through the content in a logical way. Once these three elements have been defined, I move on to a more concrete level, where content, detailed learning goals and 'where and who-questions' can be specified. The detailed learning goals are derived from the general learning goals and the chosen content. Therefore, these detailed learning goals will vary depending on the content of the lessons. The "where" and "who" concern the question of where the learning activities are to take place and who will carry them out.

Because this kind of citizenship education calls for problem driven content, it requires a well thought-out temporal organisation of the curriculum. Political knowledge is relevant, but citizenship education, as group problem solving, must also address societal issues. As mentioned by Künzli (2007) and Bertschy (2007), ideally, the curriculum should construct content in an organised and reflective way and aim to gradually increase its complexity as students progress through the years. The choice of which societal problems to deal with, depends on the context, the school and student characteristics. Each individual school must define how the curriculum might be organised in a meaningful way, befitting their own situation. I will then reflect on the practical constraint of this citizenship education: its feasibility.

The key question in chapter six is: *How can an epistemic theory of deliberative democracy be justified and translated in the classroom?* In the first part of this chapter, the chosen epistemic theory of deliberative democracy, belonging to the liberal current, will be justified and the process of deliberation, with group decision making as its main goal, will be expounded. Group problem solving will be defined as the core competency of citizenship education. Secondly, the demands that deliberation puts on citizens' thinking capacities will be described and subsequently translated into four educational principles, using cognitive developmental and educational psychological research. Thirdly, general learning goals will be set, and the further translation of such citizenship education will be discussed in detail and illustrated with an example. Finally, criteria for the choice of content will also be discussed.

Justification of a theory of deliberative democracy

As discussed in chapter three, education, as a praxis and as an institution, must take great care and give it a lot of thought when considering adding new subjects to its curriculum. The chosen theory of democracy should take into account the complexity of reality and its openness, as well as the openness of students' future, and therefore it should stimulate students' autonomy. In this way, it should be possible to meet the strategic and educational shortcomings

(fundamental constraint) discussed in chapter four. Societal issues are complex, controversial and open: different solutions can be explored, and each solution has its drawbacks. Gaining knowledge on societal issues and using this knowledge to grasp, understand and argue about them should be the main goal of citizenship education. This means teaching students to think about and reflect on this complexity and controversiality. This process of gaining knowledge, evaluating this knowledge and using it to understand, think and reflect on societal issues, fosters students' autonomy as, in this way, they are enabled to make their own judgements and make their own decisions.

One theoretical framework that would fit these educational and strategic goals is deliberative democracy. If the essence of democracy is collective decision making, then there are roughly two ways of achieving such decision making: by aggregation (voting) and by deliberation (discussion) (Gutmann & Thompson, 2004). In a deliberative framework, in order to make a significant contribution to collective decision making, citizens must be able to deliberate on all sorts of issues, to evaluate these, find solutions and ideally reach shared agreements (Goodin, 2008; Kymlicka, 2008). According to this view, group problem solving could be classified as fitting deliberative theories of democracy (Bächtiger, 2010; Landemore & Page, 2015; Van der Ploeg, 2015). Group problem solving as a pedagogical approach to citizenship education, is not only linked to proponents of a deliberative democracy, but has also been supported throughout the last century by educationalists such as Dewey and Kohnstamm, and has been implemented in the U.S. social studies curriculum, as well as in Politische Bildung in Germany (Van der Ploeg & Guérin, 2016). Black (2012) distinguishes two aspects of deliberation that occur in conjunction:

> one aspect is the analytic process, which involves group members talking together in ways that allow them to develop a shared information base, clarify the key values at stake, identify and weigh the pros and cons of possible solutions, and make the best decision possible. The second process necessary in deliberation is the social interaction that develops quasi-democratic relationships among participants. This social process involves participants having equal and adequate opportunities to speak, demonstrating mutual comprehension and consideration of other's view, and communicating respect of the group members and their perspectives. (p.61-62)

Both processes are relevant to optimal deliberation, the second, the social process, enables and supports the first, the analytic process. But this analytic process, even under optimal social conditions, can be inadequate

(Bächtiger, 2010). This means that working on these social aspects would not be enough to attain the best solution for the problem at hand.

Some advocates of a deliberative democracy argue in favour of enhancing the epistemic quality of the discussion. This entails identifying which cognitive processes hinder deliberation and how such limitations can be overcome. In this context, epistemic quality means that "deliberation should enable one to unravel new evidence, share knowledge and improve existing knowledge and should lead to the most "correct answer", or at least, to the best possible answer to a given collective problem." (Bächtiger, 2010, p.21). Landemore and Page (2015, p.3) describe an epistemic approach of deliberation in roughly the same way as Bächtiger: "By epistemic approach, we mean that we are not as concerned about the procedural values attached to consensus—the way consensus expresses respect for other people's interests and judgements for example—or even the instrumental value of consensus that has to do with the generation of a feeling of "belonging" or the reinforcing of a shared identity. We focus instead on the ways in which consensus fosters and indicates better decisions. By better decisions, we mean decisions that are as empirically accurate, socially desirable, and morally correct as possible."

The epistemic variant of deliberative democracy considers the content of the discussion and the epistemic quality of the solution to be the goals of deliberation. Choosing such a framework seems appropriate, as societal issues are complex and often controversial (addressing the strategic shortcoming of the fundamental constraint). Offering a setting for students to engage in group reflection with their peers on such issues increases their autonomy by elaborating their knowledge and by practising thinking about them (addressing the educational shortcoming of the fundamental constraint). Group problem solving means that students must acquire an understanding of the issue at hand, recognise the controversiality of such issues, but also understand what kind of solutions are possible or what kind of solutions have already been developed. Attemping to find solutions leads to an understanding of how decisions can be taken, legally or politically; it also provides insight into the workings of power and how institutions relate to each other. Students can then discuss the kind of participation that would be the most suitable or their vision on how society could evolve. It also enables students to reflect on their values with regard to such issues and discuss their differences. Furthermore, it also makes it possible to discuss with students this theory of democracy and it allows students to explore other conceptions of democracy and the idea of being good citizens and it teaches them to think and discuss these competing views on democracy and citizenship. Enriching students by encouraging them to think about how a "good citizen" might be defined and how to put this concept into practice gives them the knowledge to decide for themselves what kind of citizenship they have affinity with or what kind of citizenship would be

effective in light of the issue at stake (addressing the political constraint). Even if an epistemic approach to deliberative democracy is still the norm, its political and fundamental constraints are much less limiting to students' autonomy. Therefore, this approach offers the students more scope for reflection.

The epistemic theory of deliberation

Improving the epistemic quality of the discussions and decisions through deliberation is a matter of ongoing debate among deliberative theorists. For Landemore (2007, p.7), "Epistemic democrats, who focus on "truth-tracking" properties of democratic procedures, such as voting and deliberation, argue that the value of democracy is partially to be found in the epistemic quality of the decisions that democratic decision making (at least probabilistically) produces." The question then raised is how to enhance this epistemic quality. According to Bächtiger (2010), the epistemic quality of discussion will improve by using "productive contestatory techniques" which lead participants of deliberation to deepen their disagreements through argumentation, to search for inconsistencies in others' arguments, to evaluate the validity of claims and ultimately reach a broader understanding of the issue at hand. These contestatory techniques encompass: "…three interrelated elements: questioning, disputing, and insisting." (Bächtiger, 2010, p.8). When consensus is considered an aim of deliberation, this can give rise to a search for common ground without thoroughly analysing and evaluating the disagreements and arguments, avoiding arguments that would lead to conflict, failing to share all information on the issue.

For Landemore and Page (2015), it is the deliberation task that defines what kind of communication would be most efficient. Landemore and Page (2015) distinguish three different tasks: aggregative preferences, problem solving and predictions. Depending on the task at hand, the process and outcomes of deliberation will vary. For issues in which disagreements are fundamental and for which good reasons can be given for various positions, for example abortion, aggregation is the most efficient way of reaching a decision. In the case of problem solving, striving for a consensus is the most adequate procedure because the aim of deliberation is to work out different solutions and decide which is the most appropriate. Whereas for predictive tasks requiring no agreement, for example when discussing the possible impact of certain policies, contestatory discussion techniques, such as those proposed by Bächtiger (2010), would be best suited, as they encourage participants to compete in producing predictive models which ideally lead to "more accurate collective prediction" (Landemore & Page, 2015, p.20). The objection raised by Bächtiger (2010), namely that a premature search for common ground may compromise epistemic quality, should be considered when teaching students how to argue during a deliberation. This means that

students should be encouraged to deepen their positions, explicitly discuss their disagreements and share their knowledge thoroughly before embarking on a search for potential solutions and consensus. In short, practising how to deliberate can include "productive contestatory techniques", even in the pursuit of consensus.

To sum up, Landemore and Page (2015) and Bächtiger (2010) agree that the primary goal of deliberation is to increase the epistemic quality of the discussions, finding solutions and making decisions on the problems citizens face. This implies that the educational approaches used should focus on enhancing the quality of discussion among students and the quality of the solutions proposed. In that case, the content is paramount. Choosing such an epistemic theory of democracy maximises students' autonomy, because they will have to gain knowledge in order to understand and deliberate on the issue. I am, however, not claiming that learning how to share values is not relevant, as I have already discussed in chapter three.

Listening to others respectfully, accepting different points of view, equity and trust, are important conditions that facilitate the process of group problem solving. Within the framework of an epistemic theory of deliberative democracy, these attitudes, which students are required to develop and exercise, are functional in the sense that they enable them to attain a good quality of discussion among themselves. According to the literature on collaborative learning, students should receive training in order to successfully develop such listening skills, to learn to respect others' arguments and have enough trust in other students to engage in discussions and share their points of view (Baines, Blatchford & Chowne, 2009). Our focus is on developing the thinking capacities students need to engage efficiently in group problem solving as citizenship education. As Parker (2003, 2006, 2010) emphasises, schools are the first institution students are exposed to, allowing them to engage in deliberation with students from different cultural, ideological and familial backgrounds. In citizenship education, too strong a focus on social interaction could come at the expense of practising argumentation skills, reaching sound judgements and making good decisions. There is an overwhelming amount of research showing that argumentation skills take time to develop, that the quality of people's judgements and decision making is often poor due to thinking biases and heuristics, and that group thinking is not always efficient (Baron, 2008; Perkins, 2009, Kahneman, 2003; Stanovich & West, 2007). But on the other hand, these communication and social processes should not be underestimated as they are necessary conditions for deliberation. Now that the theoretical framework for citizenship education has been chosen, justified and discussed, I will first consider the kind of thinking skills citizens require in order to deliberate, before I proceed to discuss the implications for education. To define these thinking skills, I will theoretically describe how a

deliberation could ideally take place and identify the steps taken before and during a deliberation.

The process of deliberation

The point of departure here, is that the content of deliberation concerns a wide range of issues relating to the common good of citizens and to making decisions as to how to solve such issues. This means that citizens may deliberate on issues ranging from political to environmental, from local to (inter)national. The goal of such deliberation is not per se that citizens change their opinions, but that they develop an informed view on the issue at hand, in the awareness that there are potentially several defensible positions concerning the given issue. An outcome of such deliberation might be that no consensus or solutions are possible due to irreconcilable points of view or judgements. In this case, citizens must reach a consensus on how to deal with these differences or to choose aggregative forms of decision making, as suggested by Landemore and Page (2015). I also assume that citizens have the opportunity to inform and prepare themselves prior to taking part in such deliberation. Three phases will be distinguished in order to achieve a more precise description of what is required of citizens. First, citizens can prepare themselves for taking part in the deliberation. Second, in (small) groups, they have to explain their position to each other. Third, they must reach a common analysis of the topic under deliberation and make a decision.

Preparing for deliberation

Deliberating with others means that individuals are able to justify their point of view on the issue in such a way that others can understand them (Gutmann & Thompson, 2004). Here, two things are required: (a) that a position is taken on the issue and (b) their ability to explain it to themselves and others, even to strangers. Let us examine (a) and (b) more closely. Participating in a deliberation should lead one to reflect on one's own position and be able to justify it. If an opinion is held on the matter, the underlying reasons must be made explicit. One engages in evaluating and judging one's own reasons – are these reasons supported by evidence and/or can they be organised and structured as a logical set of arguments? Is there a need for new or further information or evidence? If so, this must be gathered and evaluated to determine its credibility and adequacy. The new information needs to be interpreted, analysed and evaluated, inferences have to be made and integrated within the argumentation. This process can result in improving, revising or changing one's earlier position. The amount of preparation, either the search for additional information or the examination of one's own argumentation, may, of course, vary. This depends on the complexity of the issue and the level of one's relevant knowledge and expertise, the willingness to do so and the

time available. During this process, citizens can take their time to think things through, or choose not to do so. Therefore, they can reason at their own pace and level, practising internal deliberation.

Explaining one's own position

Once the actual deliberation commences, there is less time to think and individuals must also respond to others' reasoning: citizens must react to others' positions, give counter-arguments, deal with others' reactions to their own position and react to them. But first of all, each member must be ready to explain their position. This means assessing the appropriate kind of explanation and the level of complexity other members of the group can handle. This evaluation depends on the complexity of the issue discussed and the level of knowledge one believes others possess. Therefore, if a person presents an argumentation too complex to be grasped in the light of other members' lack of the required knowledge, then further explanation is called for. This demands the ability to tailor one's explanation to meet the required level, as well as some degree of pedagogical insight, which is not always easy when dealing with complex issues. Moreover, the issue must often be deliberated with strangers. The arguments not only have to be comprehensible, they ideally should also have a certain validity in order for them to be considered as relevant or worthy of discussion by other members of the group. And if he or she fails to convince others of the relevance of the arguments, then they must find new ways of explaining their position. Each group member presents their position, which is then to be evaluated by the other members, for instance by constructing new counterarguments if in disagreement, or, if in agreement, by supplementing the position by adding new arguments or by leaving it as it is. Ideally, this process can give rise to a revision or improvement of one's own position in the light of more valid arguments, by gaining a deeper insight into the issue at stake.

Deliberation and making a decision

The objective of bringing people together to deliberate is to reach a justified decision (Gutmann & Thompson, 2004). This means that members of the group must make a judgement as to an appropriate decision. To do so, different possibilities have to be developed with regard to resolving the issue. In the deliberation process, the judgements or points of view brought forward by the participants, are sometimes insufficient to reach a decision and so new information may be called for. To this end, experts may be consulted, or group members may seek additional information themselves. This new information must then be evaluated, inferences have to be made based on the new evidence and integrated in a coherent way. In the light of the new information, possibilities can either be explored, revised or abandoned. In order to make a

decision concerning an issue, various possibilities have to be evaluated and the best judgement is then determined, based on the new insights. To make a judgement, criteria have to be set (Baron, 2008; Black, 2012; Landemore & Page, 2015). These criteria can either be moral or factual or both, but, whatever the case, they must be supported by group consensus. Evaluating possibilities also entails attempting to foresee the various associated consequences. Both direct and indirect consequences have to be considered. In other words, the process involves making predictions and trying to take into account predetermined and undetermined factors. Again, the complexity involved in making predictions varies. Therefore, in some cases, the issue could be relatively easy to solve. Whereas in other instances, making any kind of realistic prediction may prove much more difficult. When no real agreement is attainable due to the nature of the issue, such as in the case of abortion, group members must decide on how to deal with such differences (Gutmann & Thompson, 2004). To sum up, I described the process of deliberation that ideally takes place among citizens. The goal of the deliberation is to achieve the best possible solution for the problem citizens are facing. As already mentioned, group problem solving is at the heart of such deliberation. I will turn next to the implications of such deliberation for citizenship education, but before discussing these implications, two major criticism of deliberative democracy will be discussed.

Deliberation and its critiques

Deliberation requires that citizens be adequately informed, that they are able to develop and reach reasoned judgements, that they develop different scenarios and make predictions relating to these, that they make judgements regarding the best solutions and ultimately make collective decisions. The question raised, is whether all this is asking too much of citizens, as it places high demands on their rationality. Another potential criticism is whether deliberative theory of democracy, especially the variant with group problem solving as its goal, rules out a more agonistic perspective on citizenship (Mouffe, 2013).

Placing too heavy demands on rationality is a common criticism voiced by opponents of a deliberative democracy (e.g. Gastil & Levine, 2005; Nabatchi et al., 2012). As already mentioned, research on rationality has shown that human thinking often suffers from various thinking biases and heuristics, such as oversimplification, confirmation bias, one-side bias and framing effects, potentially leading to poor judgement and decision making (e.g. Baron, 2008; Kahneman, 2003; Perkins, 2009; Stanovich & West, 2007). This irrationality does not mean that citizens are unable to develop good thinking skills. In fact, research on thinking skills has demonstrated that informed views can be reached through deliberation (Fishkin, 2005;

Pincock, 2012). Research on citizens' deliberation gives grounds for some degree of optimism. For decades, various national and international initiatives have been developed, aimed at organising deliberation among citizens, such as deliberative polling, Citizens' Jury or the National Issues Forum (Gastil & Levine, 2005; Nabatchi et al., 2012). Leighninger (2012) listed 18 different initiatives. Deliberative polling, for example, is organised by the Center of Deliberative Democracy at the Stanford University Department of Communication. The goal of such polling is twofold: on the one hand, it is to study the effect of deliberation on citizens' opinions and, on the other hand, to provide a setting for citizens to deliberate on community budgets or other local or national policies. Another type of initiative is the National Issues Forums, a national network, organising deliberation among citizens, professional associations and other organisations, in order to discuss and solve shared problems. The results of such deliberations show that participants can improve their deliberation skills, although these do require thoughtful preparation: offering carefully gathered information on the chosen topic, delivering an unbiased presentation to participants, inviting experts to speak, moderating small group discussions and coaching small groups to reach agreements (Gastil & Levine, 2005; Nabatchi et al., 2012).

The goal of deliberation can vary: in deliberative polling, the goal is for citizens to make informed choices and for National Issues Forum, it is to make joint informed decisions. The number of citizens participating may also vary: in Citizen's Jury, only a small number of citizens are invited, compared to deliberative polls or the National Issues Forum. Citizens do not spontaneously organise themselves in such a way to deliberate about shared problems. As a matter of fact, recruiting citizens for such deliberation is by no means easy (Gastil & Levine, 2005; Nabatchi et al., 2012). But once citizens do embark on participating in such a deliberation, as mentioned earlier, they learn how to collectively resolve an issue. In this sense, citizens learn while doing. But how are citizens to be prepared for this task? According to advocates of a deliberative democracy, such as Gutman and Thompson (2003), Parker (2003) and Peterson (2009), school is the most appropriate place for students to develop and practise the skills needed to participate in a democracy.

The second criticism is that group problem solving and deliberation places too much emphasis on consensus seeking procedures. It might even be reduced, as Hedtke (2013, p.58) puts it, to "political and social functionalism", leaving no room for contestary forms of citizenship, such as agitation, conflict and protest (Biesta, 2014). One response to this criticism is to emphasise that seeking a consensus is by no means an essential goal of group problem solving. Attempting to understand the issue at hand and others' positions can lead to a better understanding of the irreconcilability of differences and help to clarify why no common ground can be found. Then, if it is still necessary to make a

decision on the issue at stake, alternative ways to decide should be explored. Another, more serious objection to deliberative democracy is that it comes at the expense of diversity and minority rights, because it compels minority citizens to adopt the majority's procedural rules. But in all political conflicts, there comes a point where the most effective strategy involves influencing the majority opinion and hence engaging in deliberation. Otherwise, the only remaining option would be to end the conflict by exercising power, which would come at the expense of minority rights.

The educational consequence of the deliberative concept of democracy focusing on epistemic quality is clear. Group problem solving is the core competency to be developed through citizenship education. This view is obviously not new, having been debated throughout the last century by educationalists such as Dewey or Kohnstamm (Van der Ploeg, 2015). In American social studies, there is also a tradition that focuses on group problem solving as citizenship education (Parker, 2003). In such education, students, both individually and together with their peers, are required to learn to reflect on all kinds of complex societal issues, to develop well-grounded positions and make decisions on how to solve them. This implies that the idea of 'good citizenship' held in this epistemic theory of deliberative democracy assumes that citizens are willing to engage in such deliberation, that they appreciate good argumentation and value the epistemic quality of the discussion and solution(s) found. In the development of the learning goals, this idea of 'good citizenship' will be further specified. This approach not only places demands on the students, but also on the teacher and on educational arrangements. Consequently, students should have enough knowledge and thinking skills to form their own judgements and make their own decisions. In the following sections, I elaborate four educational principles that can be used to guide teachers in developing learning activities aimed at developing students' group problem solving skills. These principles have been developed using literature from the fields of cognitive, developmental and educational psychology.

Educational principles of group problem solving

Although the goal of deliberation is to reach a justified and shared decision, argumentation is at its heart: citizens use argumentation in order to adopt a position, to defend or explain it and, together with others, to discuss the merits of potential solutions (Landemore & Mercier, 2010). Therefore, letting students practise reaching sound judgements through argumentation is important. While arguing with each other, students must be able to take different perspectives regarding the issue at stake. Being able to consider the actors' different interests and perspectives is necessary to develop an understanding of the problem and its possible solutions that take such interests into account. Not only do students have to learn how to connect

different interests, but also different kinds of knowledge, as the issues are often multi-dimensional. Therefore, students should practise connecting different perspectives and kinds of knowledge (connected learning). In addition, these issues can be controversial with no straightforward solutions. Group problem solving does not face the problem of vision orientation (as described in chapter five) because the issues studied allow students to explore potential solutions that are already being developed and extrapolate them to the specific issue at hand in order to find a solution. Once several potential solutions have been developed, students must make a decision. The decision-making process is complicated, as students not only have to come to a decision but must also agree on how they arrive at a consensus and set criteria for potential solutions. After all, deliberation is not an individual process, so students have to learn how to think together, to exchange knowledge and argue about such issues. This means that special attention should be devoted to group work and particularly to sustaining and achieving a good level of exchange and thinking effectively together.

I deduce from the process of deliberation described earlier, four educational principles corresponding to the key aspects of the deliberation process: (1) argumentation, (2) connected learning, (3) decision making and (4) thinking together. To define the content of these principles, I used the work of specific cognitive and educational psychologists who have developed concrete learning materials in collaboration with teachers and have researched their educational strategies in primary and secondary schools. For the principle of argumentation, I used the educational strategies of Kuhn, Hemberger and Khait (2013); for connected learning, I drew on the work of Künzli and Bertschy (2007, 2007); for decision making, I used the work of Swartz, Costa, Beyer, Reagan & Kallick (2008); and for thinking together, the work of Dawes, Mercer and Wegerif (2004). These educational principles lend themselves to guiding teachers in their efforts to implement group problem solving within citizenship education.

Argumentation

Argumentation, as an educational principle, has three major goals: learning the rules of reasoned argumentation, learning how to integrate evidence in argumentation and understanding that through argumentation a better informed view or sounder judgement can be achieved than the one formerly held. This implies that students must learn, not only how to formulate a good argument, to defend a position, but also how to assess these. Kuhn et al. (2013) developed curricular activities designed to develop students' argumentation skills. These skills are defined as follows:

> generating reasons, elaborating reasons, developing reasons into an argument, examining and evaluating opponents' reason, generating arguments to others' reason, generating rebuttals to others' counterarguments, supporting and (weakening) arguments with evidence, contemplating mixed evidence, conducting and evaluating two-sided arguments, constructing (written or oral) individual argument. (p.13)

In a structured way, students become acquainted with argumentation techniques and learn how to argue in groups. Kuhn et al. (2013) distinguish three aspects of argumentation that students find difficult to learn, as these require cognitive effort and take time to master. The first aspect is that students have to learn that opinions are to be supported by reasons, that reasons may differ as to their logical soundness, their validity, acceptability or reliability. Reasons must also be evaluated and interrelated in a logical way. The second aspect is to bear in mind that others may choose alternative positions on an issue, for which they have their own reasons and arguments, and these can be legitimate ones. Engaging in a thorough examination of the arguments brought forward by others, reflecting on counterarguments, weighing them and comparing them with one's own arguments, helps students to think things through. Equal time should be allocated to strengthening one's own position, on the one hand, and scrutinising others' positions on the other. This encourages reflection on others' arguments and engagement in productive disagreement discussions. Finally, students learn how to integrate evidence into their argumentation. Thinking about evidence also requires one to consider knowledge and the kind of evidence that can be derived from different kinds of knowledge. Students learn that evidence can strengthen or weaken their own arguments but also others' arguments and that the same evidence can be used in different contexts and even to support opposing positions.

In the first phase of the lessons developed by Kuhn et al. (2013), students generate, within their group, different possible positions on the issue. Then, they think of reasons for taking a certain position. They are asked to reflect on the reasons they generated for the chosen positions, to evaluate these reasons and cast them in the form of arguments. Students then choose a position within their group and consider evidence supporting their arguments in order to strengthen their chosen position. In doing so, students should come to realise that evidence can be used in different ways depending on the context. In addition, they should be given time to reflect on and evaluate the arguments supporting the chosen positions. In evaluating these arguments, students should also consider possible counterarguments and rebuttals (counter counterarguments) that might weaken the various positions they

have chosen. As Kuhn et al. (2013) have stressed, students should learn to criticise arguments, not people.

Connected learning (Vernetzendes lernen)

In connected learning, students learn to take different perspectives on an issue and interrelate these perspectives, as discussed in chapter three (Künzli, 2007, p.56). They learn how to identify and differentiate perspectives, how to identify and analyse primary and secondary consequences of an act and, lastly, they learn how to interrelate different perspectives (Künzli, 2007; Bertschy, 2007). The perspectives can differ with regard to the knowledge dimension (different kinds of knowledge lead to different kinds of insight and opinion), the interests of actors (different actors have different interests) and the kind of relevant factors involved, such as social, economic, ecological, local and global aspects. Which factors have to be incorporated in the analysis of the issue, depending on relevancy, geographical range: local or global, or time perspective: past, present or future?

Students need to understand that these different perspectives can give rise to conflicting insights and opinions, subject to the interests of the actors, their social background, their views on the issue and their relevant knowledge. Not only may their interests clash, the issue itself can be conflictual depending on whether it is viewed from a predominantly social, economic or ecological perspective. Each actor, and their interests, should be studied and embedded in their social, cultural, economic and, if relevant, ecological context. A way for students to visualise these different perspectives is by placing each actor in a network diagram on the board, while learning about the issue and drawing links representing their interrelations. For example, in one of Künzli's lessons on chocolate, students followed the journey of a cacao bean from agricultural crop to chocolate bar in the supermarket. This network was developed in the course of the lesson. Each new stakeholder was placed in the network, along with his interests and needs. Then, these interests and needs were linked to those of other stakeholders. To gain a better understanding of how the different actors and dimensions interrelate, students can track changes occurring within this network, say when one variable is altered, and study the impact of this change on the various actors. Doing this several times should enable them to acquire a deeper understanding of the issue and its implications. In connected learning, students develop alternative solutions to a problem.

Decision making

Two distinctions have to be made with respect to decision making: (1) reaching consensus and (2) how to support the decision making process. Regarding the first point: should students be asked to reach a consensus? Not doing so can compromise the work because they would tend to avoid

disagreement (Mercer & Littleton, 2007). Therefore, students would not learn, either how to deepen other students' perspectives, or how to integrate these in their own thinking, potentially leading to the development of superficial solutions (Mercer & Littleton, 2007). On the other hand, there are issues that cannot be resolved. Forcing students to attain a consensus on such issues can result in compliance or the pretence of consensus. And so, while Mercer and Littleton (2007) claim that asking students to reach a consensus as an educational objective may provoke better and deeper discussions among students, Bächtiger (2010) believes to the contrary, that the wish to attain a consensus can lead to a superficial analysis of the issue under consideration. As mentioned earlier, students should not to prematurely seek common ground, but first scrutinise different positions and the argumentation on which these are based. When they are unable to reach a consensus due to divergent judgements or fundamental disagreements, then students should seek to achieve consensus on how to deal with disagreement, or, if consensus is not feasible, to aggregate. But before reaching a decision, students are required to discuss and analyse the pros and cons of each alternative.

Regarding the second point: how to support the decision-making process, educational approaches have been developed dealing with how to make decisions in the case of complex issues involving multiple criteria and predetermined and undetermined factors. These approaches help with the process of decision making, for instance: how to develop criteria for decision making, to apply these to the different alternatives, to track consequences and summarise results (Perkins, 2009). The models used to help students structure their decision-making process must be a mixture of both quantitative decision-making processes, such as listing the pros and cons for different alternatives that have been developed, and narrative approaches in which a line of argument is developed to support the possible solution. In the quantitative approach to decision making, students learn how to develop alternatives that might solve the problem and try to think through the consequences of each alternative, in an attempt to anticipate what could happen if a certain alternative is chosen, what they think would happen, and to try to evaluate the importance of the consequences (Swartz, et al., 2008). This might result in a list of pros and cons for each alternative. The qualitative approach involves students writing down the different solutions in a narrative format. Exercises in the "what…if" form may be very useful. Writing about potential solutions in a narrative form, can help clarify the arguments supporting a certain solution and facilitating comparison with other possible solutions. Once students have engaged in thinking about potential solutions, they can discuss and give arguments determining which solution is the most adequate. If they do not reach a consensus, then aggregative methods can be used as an alternative way of decision making.

Thinking together

Arguing, connecting different knowledge and perspectives and the decision-making process are not sufficient to ensure a good content-oriented exchange among students working together. Students should practise sharing their knowledge for the purpose of thinking together Thinking together on how to solve a problem involves explaining one's positions to others, provoking and sustaining discussions, scrutinising possible solutions, weighing them up, reaching a common understanding on how the problem is to be solved and, lastly, making a decision together (Mercer, 1996, 1999). In short, thinking together should aim at achieving a shared understanding of the problem and how to solve it. The heart of thinking together is the students' exchange of ideas. This means that students have to learn how to argue and reach sound relevant judgements *together*. Mercer (1996) calls this exchange "Exploratory talk":

> ... is that in which partners engage critically but constructively with each other's ideas. Relevant information is offered for joint consideration. Proposals may be challenged and counterchallenged, but if so reasons are given and alternatives are offered. Agreement is sought as a basis for joint progress. Knowledge is made publicly accountable and reasoning is visible in the talk. (Rojas-Drummond & Mercer, 2003, p.102)

To achieve this level of exchange, students should first learn how to work together by developing certain social skills, building their confidence and their trust in other group members. Special attention should be paid to communication skills such as listening, turn taking, posing and answering questions, requesting and offering explanations (Baines, Blatchford & Chowne, 2009). Students can develop these social and communication skills by practising specific skills each time they work together and by defining the ground rules together. As already mentioned, these are necessary conditions that should be taken into account.

The teacher can organise a briefing and debriefing loop, concentrating on one central communication skill per group work session. Students also need to learn how to sustain a discussion and share both their knowledge and thinking strategy while working together. This requires that students learn how to explain their points of view in such a way as to be understandable to others and that other group members learn to ask questions until they all understand one another (Webb et al., 2008). The teacher's support is crucial in this process. The teacher can model the students by asking open questions aimed at stimulating and sustaining exchange within the group. Moreover,

they should all have something to contribute to the group; this means that each group member should be equipped with some kind of prior knowledge on the issue. This can be achieved by having students do preparatory research on the issue in groups of two.

Research shows that learning how to think (together) effectively requires a great deal of practice, time and patience (Kuhn et al. 2013; Swartz et al., 2008). The necessary thinking skills do not develop by themselves and demand expert support on the part of the teachers (Rojas-Drummond & Mercer, 2003; Webb et al., 2008; Nussbaum; 2008, Iordanou, 2010; Kuhn et al., 2013). These skills need to be practised in different contexts and applied to different topics. Because of the requirements involved in preparing for broad participation, merely exercising these skills within subject domains does not suffice. They must also be practised through cross-curricular activities. To summarise, the four educational principles (argumentation, connected learning, decision making and thinking together) can help teachers, on the one hand, to develop learning activities in which students can practise the thinking skills necessary for an epistemic theory of deliberative democracy, and, on the other hand, can contribute to the organisation of these learning activities. These principles are not sufficient to develop concrete learning activities in a logical manner. General learning goals have to be developed that give further direction to the way the learning activities can develop in a stepwise fashion, allowing students to practise such skills. These general learning goals are deduced from procedural and content-oriented criteria provided by an epistemic theory of deliberative democracy. Subsequently, the stepwise organisation of the learning activities will be described.

General learning goals and the organisation of the lesson

As already discussed, students should learn how to discuss all kinds of issues, to consider potential solutions and reach agreement with others concerning these solutions. Characteristic for this democratic deliberation and decision making are the procedural principles of fairness, inclusion and equal voice; no one is excluded from participation and everyone has an equal opportunity to contribute (Van der Ploeg, 1995). According to an epistemic theory of deliberative democracy, the content criteria must also be taken into account: the discussion must meet epistemic requirements; informed and justified arguments carry the most weight as shown in figure 1. Not only the deliberation itself has to meet procedural standards, the results of deliberation and decision making must fulfil specific criteria too. Here, fairness is also a commonly found criterion, which entails giving equal consideration to every person's interests. Another criterion is that the results of the deliberation should be realistic: i.e. contextual and based on adequate and appropriate knowledge and taking into account the characteristics of the situation along

with its constraints and possibilities (see figure 1).

This means that the learning activities to be developed, should allow students to gradually become accustomed to taking all these criteria into consideration, allowing them to deliberate and make epistemologically sound and fair decisions, marked by procedural fairness (inclusion and equality), fairness of results (considering everyone's interests to an equal degree) and realistic results (contextual adequacy).

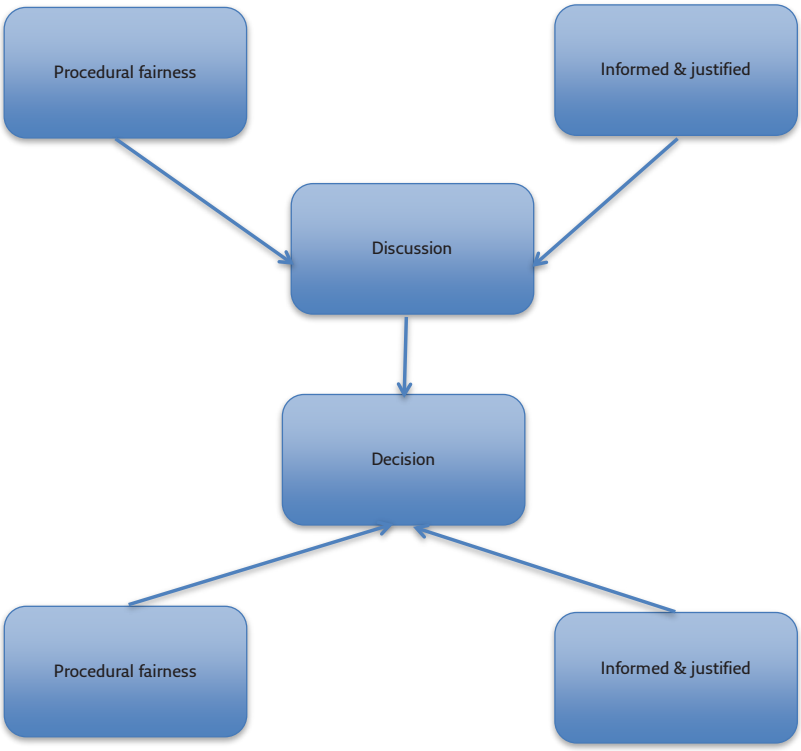

Figure 1. *Procedural and Content-Oriented Criteria*

According to the goals and requirements of deliberation, the following general learning goal has been defined:

Students are, and also feel, competent to participate in discussions on societal issues, to reflect on potential solutions, compare, judge and elaborate these and to make group decisions regarding the best solutions. In doing so, students take into account democratic procedure and 'results'- criteria. They understand how knowledge is relevant to finding answers to societal issues and they realise that it is everyone's responsibility to find fair and sustainable answers.

Within these general goals (GL), seven aspects can be distinguished: the first three deal with knowledge and skills and the last four with attitudes.

1. GL1 - Knowledge acquisition: Students are able to search, in an efficient way, for information, to judge its usefulness and use it in the analysis, reflection on and solution of societal issues. Students can understand different conceptions of democracy and good citizenship.

2. GL2 - Making judgements: based on the knowledge gained, students are able to develop their own judgements regarding the societal issue at hand. Students are also able to develop their own judgements concerning the various ideals of democracy.

3. GL3 - Discussion: Students are able to discuss societal issues with others and make decisions based on them. They are able to share their understanding and judgements with others. They are open to others' arguments and are willing to change their point of view in the light of others' arguments, even if they are defending an opposite point of view. Students can view others' contributions respectfully and process them. They realise that "conflict" within a discussion can lead to better arguments and cannot always be avoided.

4. GL4 - Humility: Students understand that knowledge and understanding are relative and that not all arguments are equally sound. They realise that there are no ideal solutions, only optimal ones. They have a realistic idea of what can be achieved at an individual and a collective level.

5. GL5 - Confidence: Students are confident that they, as individuals and as a group, can contribute to discussions about societal issues. They are confident that they, individually and as a group, can make decisions regarding fair and sustainable solutions.

6. GL6 - Appreciation: Students consider it a challenge to design and find optimal solutions. They are aware of the value of working in a group. Moreover, they appreciate the relevance of knowledge when it comes to responding to societal issues.

7. GL7 - Motivation and critical attitude: Students understand that, while innovation and technology give rise to progress, they also tend to generate moral problems for society. Students believe social issues to be important and feel they are competent to influence such issues. They have a critical attitude. This does not, however, dampen their enthusiasm to participate in developing solutions.

The goal of this citizenship education is not directed towards solving the problems democracy and society are facing as a whole, its aim is to introduce students to these issues in a reflexive manner, to think about them, to acquire relevant knowledge about them, to gain insight into their complexity and to take into account such complexity and while dealing with this complexity trying to agree on potential solutions. The only educational goal is to equip students with knowledge and thinking skills that they may use (or not use) in their future. Therefore, the common good is not something predefined, but something that must be redefined, time and time again. These learning goals, and their various aspects just mentioned, are still quite general, but they do point towards the kind of knowledge acquisition, skills and attitudes that students should practise. Together, the educational principles and the learning goals help provide a better structure to implement group problem solving as citizenship education. However, they are still not sufficient to structure the steps that are to be taken in developing educational material.

The questions still left to answer are: how to organise the lesson units in a logical way and which choices are to be made when combining knowledge from different domains. First, the organisation of the lesson units will be described. Group problem solving as citizenship education can also be employed as an organisational structure of the lesson. To achieve this, Problem Based Learning (PBL) was used as a framework. PBL is a teaching method in which a learning task is organised in such a way that students acquire the skills and knowledge needed to solve problems, while simultaneously gaining content knowledge on the issue to be solved. This learning must take place in an authentic context (focusing on a real-world problem), the problem must be unstructured, with no clear-cut solutions, and also complex (Wirkala, 2011). The 'open-ended' nature of the problem must be such as to motivate students to reflect upon it and ask themselves questions, to reach reasoned judgements and develop alternative solutions (Hemlo-Silver & Barrows,

2006; Savery, 2006). The real-world problem must integrate knowledge from different knowledge domains. Therefore, PBL is a cross-curricular activity. This teaching method also sequences the learning process, starting with a problem, an initial analysis and the formulation of a hypothesis; subsequently students progress to a deeper analysis of the problem, then they go on to develop potential solutions for the problem and, as a final step in the process, they reflect on what they have learned (Wirkala, 2011). To sum up, students have to complete four phases: first, they must conduct an initial analysis of the problem, then analyse it, thirdly they have to come to a decision and, lastly, they must conduct a debriefing to reflect on the most relevant concepts that have been learned and that were necessary to solve the problem.

Choosing educational content

Now that I have defined the 'how', i.e. which educational principles can be used in order to implement group problem solving as a core competency of citizenship education, which general learning goals are appropriate and how the learning activities might be sequentially organised, I will focus on the content. What should be the content of such learning activities and how might we define it? This must be the first step teachers take in their preparations (Klafkli, 1995; Künzli, 2006). As Künzli (2006) pointed out, there is no specific curricular logic or organisation when it comes to studying topics related to sustainable development. The same applies to the content of citizenship education, seeing as this deals with the same societal issues as sustainable development, ranging from political and social to environmental problems. It cannot be compared, as to its underlying knowledge structure and logic, to a specific knowledge domain, such as mathematics, geography or history, because the issues require the use of cross-curricular activities. What makes a societal issue relevant depends on the temporal and cultural context (Künzli, 2007). As Künzli pointed out, this does not mean that teachers can choose just any content.

To qualify as suitable leaning content, there are some criteria an issue has to meet. To establish these criteria, I have combined part of Künzli's set of criteria for sustainable development with Klafki's educational analysis. Künzli's criteria help determine the dimensions the content should include and make them explicit, while Klafki's criteria link the content to the students' future and present as well as to the underlying structure of the content. Klafki's approach to thinking about curriculum content and choosing such content is useful and practical. Klafki (1995, p.13) takes the concept of 'didactics' in its broadest sense, to mean "the theory of contents and curriculum". According to Klafki (1995, p.16): "The principal purpose of instructional preparation can be summarized as follows: preparation as the design of one or several opportunities for certain children to make fruitful encounters with content

of education (Bildungsinhalten)." In order to conduct the didactic analysis of the content, 5 key questions must be answered. They can be classified under the following themes: (1) Significance for the learner in the present, (2) Significance for his future, (3) Exemplary significance of the content for the learner, (4) Structure of the content (5) Accessibility. The first three aspects deal with justifying the choice of content for students to learn, whereas the last two concern the structure of the content to be learned.

The chosen content should take into account the openness of the students' future and should in no way give rise to a narrowing of their views and their comprehension of the world. It should enrich students with knowledge that is relevant for their future. As Klafki (1995) puts it: "This means, therefore, that everything which claims to be content of education must also have a significance for the future of those to be educated – the future for which education is supposed to equip the young people and which it must anticipate, without falsely being premature and without narrowing the students' future scope for decision making" (p.22). The chosen content must not only be useful for their future but also be relevant to their present. It should integrate aspects of the students' daily life or enable learning in an authentic learning context for them to link the classroom work to reality. Activities outside the classroom should only be organised if they support students' learning.

The knowledge and skills learned and practised through the chosen content must also anticipate what those students will encounter later on in the curriculum. The fact that some concepts could be reiterated in the curriculum after the lesson activities, might lead teachers to place emphasis on understanding one set of knowledge. Furthermore, teachers have to choose the concepts and knowledge that will be central to the lesson activities (geography, history, sciences) and carefully link these to other kinds of knowledge needed to grasp its complexity, without losing sight of the whole curriculum. The structure of the content and its accessibility are the last two relevant aspects. The content of the lessons should be structured in such a way that students are able to grasp it, without the issue being either too demanding or too oversimplified. The risk of preparing too demanding or oversimplified lessons is that this might result in students developing certain misconceptions. Teachers should carefully consider the relevant elements of the issue and sequence them in a piecemeal fashion.

Besides considering the content as relevant to students' present and future and presenting it to them in an accessible way, the content should also lend itself to demonstrating connections between different dimensions. Students should learn that societal issues connect social-cultural dimensions to economic and often technological and ecological aspects. If relevant, the global and local dimensions of the chosen issue should be logically

connected. The issue should also be placed in a historical context, linking past to present, and enabling students to reflect on potential future solutions. The primary learning goal is not that students develop realistic solutions, but that they come to realise the complexities of such issues and that there is no ideal solution, and moreover, that unforeseen problems can arise when solutions are implemented. Societal issues are inherently unpredictable, and students should be equipped to deal with this (Künzli, 2007). This must not demotivate students, leaving them without resources, but should show them that unpredictability always opens up more possibilities for new development.

The lesson should be structured in such a way, that students gain skills and knowledge regarding how to solve problems, while at the same time acquiring content knowledge on the issue to be solved. Learning must take place in an authentic context (a real-world problem); the problem must be unstructured with no clear cut solution, and also complex, in order to stimulate discussion among students (Wirkala, 2011; Mercer, 1999; Baines et al., 2009). The openness of the problem should engender students' reflection and prompt them to ask themselves questions, reach reasoned judgements and develop alternative solutions (Hemlo-Silver & Barrows, 2006; Baines et al., 2009). First, teachers sequence the learning process by formulating a question to be answered, offering an initial analysis of the issue and setting forth hypotheses, secondly students move on to a deeper analysis of the issue, then they develop potential solutions and, lastly, students reflect on what they have learned (Wirkala, 2011).

Socio-scientific issues and scientific citizenship

Group problem solving, as citizenship education, involves cross-curricular activities: (1) general educational approaches have to hybridise with educational approaches focusing on subject matter and (2) different kinds of knowledge also have to come together: history, geography, science…However, it is not feasible, within the scope of a single lesson series, to explore, in depth, all the subject matter relevant to understanding the chosen issue, or to do equal justice to all general and specific knowledge content. Therefore, teachers must define the societal issues they will be dealing with and choose which subject content the lesson series will focus on. The motivation for this choice depends on the kind of societal issues the teacher is planning to address, the nature of the subject matter best suited to furthering the students' understanding of the chosen issue and the duration of the lessons. In this example, science provides the chosen central subject matter. The learning activity has been divided into several lessons. The problem to be solved in this example is a socio-scientific issue: the use of nanoparticles in sunscreen. Before turning to the casus, I will argue the use of science, as the main subject matter in this case. Researchers warn that citizens are often unable to follow current discussions (Jenkins,

1994; Mooney & Kirschenbaum, 2009). Citizens require scientific knowledge and skills in order to participate on equal terms in discussions and decision making concerning societal issues, such as shale gas, genetic engineering, poverty, nuclear energy and climate change (e.g. Aikenhead, 2011; National Research Council, 2012; Osborne, 2007). OECD (2007) is right to describe the objective of science education as follows: "the goal of science education is to enable to critically examine and make thoughtful decisions regarding important socio-scientific issues". And, according to Day and Brice (2011), it is "to hold and defend informed views on social, moral, ethical, economic and environmental issues related to sciences" (p.6). The PISA documents, too, emphasise the importance of scientific literacy: "the ability to engage with science-related issues, and with the ideas of science, as a reflective citizen." (PISA, 2013, p.7). Dealing with socio-scientific issues furnishes an educational context to support the development of scientific literacy (Sadler, Klosterman & Topcu, 2013).

Sunscreen and nanotechnology

The problem was chosen based on its meeting Klafki's five criteria: (1) Relevance to the learner's present situation: nanotechnology is already part of citizens' daily life, it has been used in cosmetic products and in many other consumer products for some twenty years now, (2) Significance for the learner's future: nanotechnology is seen as a technology with the potential to make life better and more ecologically friendly, while at the same time confronting citizens with moral and ecological problems, (3) Exemplary significance of the content for the learner: technology as a means of improving daily life but with unforeseen consequences, (4) Structure of the content: the study of different actors and their interests, as well as the scientific concept of nanoparticles and the relevance of nanotechnology, structured the content, (5) Accessibility: in order to be understandable, the content was broken down into small pieces; too complex knowledge requiring expertise in chemistry was not part of the content. Furthermore, the subject allows for the cross-fertilisation of social, economic, technological and ecological aspects of the issue and to pinpoint local and global aspects.

The problem

The problem to be solved was put forward by L'Oréal. L'Oréal requested help in finding a solution for their sunscreen problem. In sunscreen, nanoparticles are used to block out the sun's rays. Nanoparticles are, in fact, the most effective sun blockers in existence. The problem with nanoparticles is that their impact on health and the environment is, at the present, not well understood. The learning activities have been divided into four phases: initial problem analysis, problem analysis, making a decision and debriefing. In the

following section, the learning activities will be described in detail and I will also illustrate the relationship between the four phases within the sequence of learning activities, the translation of the general goals into detailed goals, as well as the educational principles.

Detailed learning goals	***Short description***	***Educational principles***
Problem initial analysis		
At the end of this phase, students have: Developed a common view of what the problem is. Defined and prioritised the prior knowledge of the group. Defined the knowledge required in order to solve the problem. Defined and prioritised the research questions that need to be answered. Aware that nanoparticles are used in cosmetics, how they work in sunscreen and able to read and interpret an INCI declaration.	In the initial analysis, it is important to guarantee motivation for the topic. One strategy is to spark prior knowledge and use it to grasp the problem. Ask students to bring along their own sunscreen. First, make an inventory of sunscreen usage as a consumer: which brands are being used, how much they paid for them, when and where they use sunscreen and how much. As it is expected that students would have little knowledge of nanotechnology and sunscreen, they are given information in advance, comprising of reading material and videos: (1) explaining how sunscreen works, (2) explaining the difference between sunscreen with and without nanotechnology, (3) explaining the INCI declaration on sunscreen and (4) discussing when a sunscreen really protects against the adverse effects of the sun. First individually, and then in groups, students must make an inventory of their prior knowledge and what they have learned. They have to discuss, justify and decide on the relevancy of the knowledge they have acquired and choose the four best leading research questions with which to structure the next lesson. The placemat method was used.	Argumentation Thinking together

Table continues on next page

Detailed learning goals	*Short description*	*Educational principles*
Problem analysis		
At the end of this phase, students: Know what nanotechnology is and what nanoparticles are. Understand that the knowledge about nanoparticles and their consequences for human health and for the environment is incomplete and research is still in its early stages. Understand that nanoparticles are not easy to identify in water due to their size. Understand that nanotechnology has a lot of potential, for instance for developing better cancer treatments, for reducing CO2 emission, for water treatment. Be able to connect the interests of different actors, such as the company producing the rutile, the company transforming Titanium into nano TiO2, L'Oréal producing sunscreen, the consumer, environmental NGO and governmental institutions. Discuss, in groups, the resulting network of actors and influences and understand the interests of the various different actors and how they interrelate. Understand as a group the effect of changing one variable on the different actors and at what level the changes are occurring. Can integrate in their discussion the information learned, to substantiate the changes they expect to occur.	In this phase, teachers deepen their comprehension of the problem. Because nanotechnology is so complex, and in order to fully understand the impact of nanoparticles on health and the environment, the decision was made to organise a second activity in the form of a science lesson on nanotechnology and nanoparticles. First, students will experience how nanoparticles work and how they are used in different industries, for example, on clothing. Then, nanoparticles will be explored using experiments and inquiry strategies. Once the concept has been mastered, students will move on to study how sunscreen works and what kind of nanoparticles is used. The focus is on titanium dioxide (TiO2). Then, during the following activities, the journey of titanium will be researched. First, the students will study where titanium is sourced (from the mineral rutile), how it is extracted and produced in Sierra Leone. Information about the environmental impact of extraction using dredging techniques will be offered, as well as information on the socio-cultural and economic situation in Sierra Leone. Then, the process of transformation of TiO2 into nanoparticles will be studied. Once again, environmental impacts will be discussed. The journey continues with consumers using the sunscreen and what happens with the nanoparticle once it is used in recreational water. Information on the effects of nanoparticles on water, plankton and other aquatic organisms, such as fish will be also researched. In addition, information on different kinds of players will be supplied, such as environmental NGO, governmental institutions and industries, whereby the main focus was on their roles and interests. A network diagram will be drawn following the journey of titanium as rutile until it ends up in recreational water. To this, the various interest groups along with their actions were added. Possible alternatives to sunscreen containing nanoparticles were also researched. When the diagram visualising the network is completed, a "what …if" game can be carried out: what if a variable changes, what are the consequences for the rest of the chain of actors. This made it possible to visualise and discuss how actors interrelate. Each lesson should be concluded with a debriefing on what was learned, which information was relevant and what the research questions were. The completion of this phase takes five lessons of one and a half hours duration.	Argumentation Thinking together Connected learning

Detailed learning goals	*Short description*	*Educational principles*
Decision making		
At the end of this phase, students: Understand that each solution has consequences (both positive and negative). Weigh the different consequences and discuss them with each other. Understand at what level the developed solution is solving the problem. Are able to make a decision regarding the best solution.	In the decision-making phase, students will have to develop at least two possible solutions and discuss the different consequences (ecological, social, economic). The original problem given by L'Oréal was reread. Teachers had to agree within the group on which of the two solutions they had worked out was the best and to justify their choice. To help the teachers, handouts were supplied containing written prompts designed to structure the development of possible solutions, such as: what are the positive and negative consequences. This step required two lessons of one and a half-hour duration.	Argumentation Thinking together Decision making
Debriefing		
At the end of this phase, students: Can recall the relevant knowledge learned. Discuss the best solution proposed by the different groups. Are able to take part in a decision, as a class, on which solution should ultimately be chosen and on what grounds.	In the debriefing phases, the scientific concepts learned will again be discussed and the different solutions brought forward by the groups are presented and discussed.	Argumentation Thinking together Decision making

Table 2. *Learning activities*

Citizenship education as group problem solving capitalises on the expertise and creativity of teachers as well as on their faculty to scaffold and support group processes. Teachers should also be able to develop cross-curricular activities and sequence them in a logical way, helping students to grasp the problem and its complexities. Choices have to be made regarding the knowledge domain that will be studied in greater depth. But, before starting to deal with societal issues, as already discussed in chapters four and five, students' communication and basic argumentation skills need to be developed. Students must feel sufficiently confident and safe to engage in mutual discussions (Mercer, 1999; Baines et al., 2009). In order to gain such confidence, students, together, need to define the ground rules of their discussion. They also have to develop basic argumentation skills, such as

understanding that argumentation is not merely holding an opinion, but also giving reasons to justify it, or understanding that others also have reasons for their opinions and that these can be good ones (Kuhn et al., 2013). This means that students need to practise the basics of argumentation beforehand and also practise their cooperative skills in order to be able to think together effectively. With regard to its feasibility: because such citizenship education combines knowledge and thinking skills, it is less constraining for the curriculum, seeing as it does not demand a different school organisation. It does, however, require cross-curricular activities, which poses less of a problem to primary schools than to secondary schools.

Concluding discussion

Group problem solving was defined as the core competency of an epistemic theory of deliberative democracy. An epistemic theory of democracy for citizenship education attempts to avoid the fundamental constraint discussed in chapter four, as it protects the development of students' autonomy and, at the same time, takes into consideration the complexity of reality. It also deals with the political constraints, because what it means to be a "good citizen" and what kind of participation is possible also becomes a subject of discussion. This framework was explained, justified and translated into the four educational principles: argumentation, connected learning, decision making and thinking together. According to Mercier and Sperber (2011), the function of argumentation is to support the development of reasoning. Argumentation should lead students to achieve sound judgements on the issue at stake. Connected learning helps students to form perspectives regarding content, actors and dimensions and to learn how to interrelate these. In this way, students learn how to develop different alternatives to solve the issue and learn how to make decisions together. Students should learn how to think and must be prepared to work effectively together and above all how to think together. These educational principles provide teachers with a framework for developing and equipping students with the kind of thinking skills necessary in order for a deliberative democracy to function well. The educational principles are too general in order to develop concrete learning materials, therefore general goals fitting an epistemic theory of deliberative democracy were developed and the organisation of the learning activities sequenced in four stages. Choosing content for such education is not always easy for teachers. Klafki's criteria help to define the kind of content that might be suitable.

Teachers should understand how these educational principles can be implemented to support the kinds of skills and knowledge to be developed in their students. They also have to be able to specify the general learning goals according to the content. This means, on the one hand, that teachers

should receive training on how to develop learning activities dealing with societal issues, involving cross-curricular lessons and integrating the four educational principles. On the other hand, teachers should also be knowledgeable regarding the issue students are dealing with, they should possess argumentation skills and a certain amount of epistemic knowledge. In short, teachers need to possess argumentation skills themselves and should be equipped with the professional educational knowledge and skills needed to develop and implement such citizenship education. The practical constraint is partly met, as such an educational approach does not require a different school or curriculum organisation or a greater time investment.

Considering citizenship education as group problem solving raises the question as to whether students should practise such deliberative participation at school, or that these deliberation skills can be learned later on as an adult. Research on deliberation among adults shows that it is indeed possible for adults to learn how to deliberate. However, it takes a tremendous effort, for instance, to organise deliberative polls and to prepare and support the citizens taking part in them. One relevant argument in favour of practising such citizenship in the school, is that the thinking skills involved are hard to learn and require a great deal of practice in many different contexts in order to develop and the school setting is ideally suited to supervising the (early) development of such skills. To argue effectively with each other, students must learn rules of argumentation and be trained in developing the necessary social and communication skills in order to be able to work productively in groups. Attention should also be given to the decision-making process with respect to content: generally speaking, societal issues are complex and controversial. It requires that students consider different variables and keep these in mind while attempting to develop solutions and make decisions. Such a citizenship education teaches students how to deal with uncertainty and helps them become acquainted with the complexities of reality. Firstly, teachers sequence the learning process by starting with the formulation of a question to be answered, offering an initial analysis of the issue and setting hypotheses. Secondly, students move on to a deeper analysis of the issue; then they develop potential solutions and, lastly, they reflect on what they have learned (Wirkala, 2011).

The purpose of such a citizenship education is not only to develop good thinking skills, avoiding biases and heuristics, but also to make students aware that societal issues require a great deal of thought and are part of an ongoing process, that there is no ideal state to be attained, only striven towards. This view of citizenship education places the emphasis on developing group thinking skills and less on transforming schools into mini-democracies focusing on developing students' participative skills, as is typical of mainstream view of citizenship education (Guérin, et al., 2013).

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Chapter seven - Discussion

Types of education such as education for sustainable development or citizenship education, are ideologically driven and controversial. Different conceptions of democracy and good citizenship lead to different educational approaches and content. Every choice in this domain will therefore be normative. In several disciplines, there are discussions about the kind of democracy that is the most appropriate and the kind of skills, knowledge and civic virtues citizens should possess in order to ensure the sustainability of this governmental form. As discussed in chapter three, such discussion is rarely found among policy makers and educational researchers who advocate the mainstream participatory approach. One major objective of this dissertation was to develop and justify an alternative approach to this mainstream participatory approach to citizenship education, one that does not aim at "making" certain kinds of citizens by changing behaviour, but instead aims at fostering students' autonomy and allowing them to take into account the complexity of reality. These limitations were encountered in actual citizenship education policy documents, namely the 2005 and 2012 Eurydice reports and the 2009 international studies ICCS. Another requirement for this approach to citizenship education was to explicate the theory of democracy and citizenship used. In this study, a particular theory of democracy (an epistemic theory of deliberative democracy) was chosen and justified, avoiding as much as possible the limitations of the mainstream participatory approach. This theoretical study does not analyse the way policy influences the school practice. What follows will describe the steps taken in this dissertation to reach this major goal.

The German discussion about the educational goals of education for sustainable development laid the basis to deepen and analyse one limitation of current citizenship education policy: making a certain kind of citizen. In the 1970s, environmental education focused on producing future citizens who will adopt ecological behaviour: consuming less, using less and respecting nature. In chapter four it was shown that these educational goals are strategically and educationally contestable. They are strategically challenged because they give the impression that complex ecological problems could be solved through individual behavioural change. And they are educationally debated because such education leads to diminishing students' autonomy. The emergence of education for sustainable development, which gradually supplemented environmental education, tackled these problems. Three German orientated educational approaches for education for sustainable development were analysed and one approach, which did not hold these two concerns, was chosen. Künzli and Bertschy's (2007) educational approaches to education for

sustainable development were analysed and partially translated for citizenship education. In chapter four, it was demonstrated that education for sustainable development is a part of citizenship education, as sustainable development limits the kind of issues that can be discussed and the kind of solutions that have to be developed.

The question, then, raised in chapter five, was whether primary school children can grasp the complexity of real world problems and develop their competencies of taking perspectives and develop perceptions of the future stimulated by connected learning and vision orientation, two educational principles developed by Künzli and Bertschy (2007, 2007). According to Evagourou (2011), at an international level, there is little research available on dealing with socio-scientific issues in primary education and on the development of argument skills in primary school children within this context. A reason for this is perhaps, that it is generally assumed that primary age students cannot handle such complexity. However, research by Evagourou (2011), Kuhn et al. (2013) and Künzli (2007) and Bertschy (2007) has shown that, under certain circumstances, primary age students can cope and are able to learn through group activities relating to societal issues. For this reason, an expert meeting was organised in order to develop a deeper understanding of the nature of these demands and whether students can cope with such complexity. The experts were optimistic about what students can achieve with regards to connected learning, especially when it is supported visually and well scaffolded by the teacher. The role of knowledge was deemed very important in developing the necessary thinking skills. According to the experts, students aged seven to nine can learn to grasp the different perspectives of stakeholders, understand their interests and inter-relate them, argue about them and engage in more sophisticated counterfactual thinking. In other words, students can engage in connected learning tasks under certain conditions: well-arranged lessons, well-chosen pedagogics, methods and materials and sufficient teachers' skills. The experts were less optimistic about the possibility of developing future scenarios due to the nature of the problems students are dealing with.

This brings us to the two kinds of problems discussed during the expert meeting. The first dealt with the demands that such tasks put on students' cognitive capacities and the second was inherent to the societal issue itself. The issues students are asked to think about are difficult to solve, even for adults, because of the multitude of factors influencing potential solutions and their outcomes, many of which are undetermined. This complexity could lead teachers to oversimplify these issues and lead students to construe misconceptions on how these problems should be solved. The experts suggested that the tasks should prepare students to gain insight into the complexity of reality and such issues also needed a lot of thought.

Teachers are required to introduce students to such issues in a piecemeal fashion. Because the tasks are often demanding, leading to cognitive overload, encoding and inhibition problems, two major resources were discussed that can potentially reduce these problems: collaborative learning and scaffolding. Collaborative learning can reduce cognitive load because students share ideas and knowledge gained, but this requires from both students and teachers that they are well equipped to work in groups and share their thoughts. Through scaffolding, the teacher can help students, stepwise, to gain an understanding of the tasks. Another conclusion was that students can indeed learn to think fruitfully about complex issues, but that the thinking skills required to do so are hard to learn and do not develop by themselves. They need to be practised in different contexts and on different topics.

The next step taken in chapter six was to define a theoretical framework for citizenship education that would enhance students' autonomy and take into account the complexity and the controversiality of societal issues. First, in chapter three, it was demonstrated that classifications of political philosophical theories of democracy and citizenship are too general to be directly useful in the way they are characterised. Within each model, there are different variations. Furthermore, according to the criteria set, the classification of the theories will vary. The most useful strategy is to choose a specific theory and then unfold its consequences for citizenship education. The essence of democracy was defined as collective deliberation and decision making. In this dissertation, an epistemic theory of deliberative democracy was chosen. This epistemic theory of deliberative democracy is educationally advantageous because societal issues are at the heart of deliberation. Letting students think and deliberate in groups about this complexity and controversy does justice to the intricacies of reality while, at the same time, increasing students' autonomy. The goal of such deliberation is to solve problems in groups and, therefore, group problem solving was chosen as approach to citizenship education. This entails that students are asked to investigate a problem by searching for information, exchanging knowledge and using this knowledge to find an appropriate solution, while working in groups. The epistemic theory of a deliberative democracy and group problem solving made it possible to define the kind of thinking abilities that must be developed, and which educational principles teachers can use in order to develop learning activities for students. It also places the content of the issues at the very centre of the deliberation and evokes the need for knowledge.

To participate in the type of deliberation that focuses on enhancing the epistemic quality, citizens need to be able to discuss all sorts of issues, to think of solutions, to compare and assess contributions to discussions and to propose solutions, and reach agreement (Goodin, 2008; Kymlicka, 2008). A central feature of group problem solving, as preparation for this kind

of citizenship, is to resolve authentic problems together. Four educational principles were developed in chapter six in order to implement such group problem solving: argumentation, connected learning, decision making and thinking together. The issues which citizens think about, contribute ideas and opinions and take part in decision making are often controversial. They are open-ended issues for which there are no unequivocal solutions, being solutions that continue to be contested by experts and about which opinions are divided within society (QCA, 1998; Day & Brice, 2011). Controversial issues call for the integration of understanding, reasoning, moral reasoning and reflective judgement (Zeidler, Sadlers, Simmons & Howes, 2005). This means practising and developing students' argumentation ability. Learning argumentation skills requires that students practise making distinctions between reasons and assertions, thinking up objections, integrating others' reasons in their own argumentation and evaluating and appreciating evidence.

Democratic citizens must also make joint decisions concerning possible solutions. To prepare students for this, it is necessary, according to this principle, that they practise thinking up possible solutions and thinking them through and considering their consequences. Students learn to think systematically about alternatives for certain solutions, to weigh up the pros and cons of these alternatives by thinking through the consequences and to do this for both the short and long term, the local and global level. In making decisions, citizens ideally take others into consideration and take into account the consequences of their decisions. For both argumentation and decision making, it is important that students learn to consider another's standpoint. This means that students must learn to recognise others' views and interests and develop the skills needed to take another's perspective and to make decisions together. In inquiring into and discussing societal issues, students learn to assess these from different perspectives and to interrelate them. The views and interests of various actors involved in social processes (relations, conflicts etc.) are explored and processed.

To learn how to solve a problem *together*, there must be a good and rational interchange of views among the students during collaborative work. It means that they must learn to explain their points of view in such a way that it is clear to other group members how they think the problem can be solved or which steps are required. Then, the others can critically assess the points of view and present counterarguments or make additional suggestions. By provoking each other, discussing each other's arguments and sharing knowledge, the ultimate goal is to reach a joint analysis of the problem, discussing possible solutions and making a collective decision. All these steps require practising thinking skills in interaction with fellow students. The essence of cooperation lies in the exchange among students. Mercer calls this exchange "Exploratory talk" (Mercer, 1996; Rojas-Drummond & Mercer, 2003). Students also have

to learn to establish and adhere to certain interactive ground rules.

The four educational principles are not sufficient to define exactly the kind of learning activities to be developed. They only offer direction. Group problem solving as citizenship education, within an epistemic theory of deliberative democracy, subsequently needed to be further translated into general learning goals. Furthermore, problem-based learning was used as a structure to organise the sequences of the lessons: initial analysis of the problem, problem analysis, decision making and debriefing. The content also had to be defined and requirements were developed based on Klafki's didactical principles (1995). There is no logical and well-sequenced curriculum available for education like citizenship education, especially when the content deals with societal issues. What makes a societal issue relevant, depends on the temporal and cultural context (Künzli, 2007). Klafkli developed five criteria that could help with choosing adequate content. These chosen frameworks foster students' autonomy by enhancing their knowledge and thinking skills regarding controversial issues in order for them to reach their own judgements. As democracy and citizenship are controversial concepts, they will themselves become content of citizenship education. This approach attempts to address the limitations of the current mainstream participatory approach to citizenship education.

Limitations of the mainstream approach of a participatory approach to citizenship education

Another important goal of this dissertation was to demonstrate the limitations of the mainstream participatory approach. This participatory approach to citizenship education was theoretically and empirically evaluated in the chapters two, three and four. Three main constraints were discussed. The first was the feasibility of such an approach (chapter two), the second, the hidden curriculum underlying this approach, was exposed and described – the political constraint –(chapter three) and, lastly, there were educational and strategic concerns – the fundamental constraint – (chapter four). The 2005 and 2012 Eurydice reports and the 2009 and 2016 ICCS were analysed. The documents state that citizenship education should not be limited to merely providing an understanding of political systems but should focus on fostering active participation in communities within and outside the school. Citizenship education has to foster participative skills as well as the motivation to become an active and responsible citizen. Besides these participative skills and motivation, citizenship education should also foster certain attitudes such as tolerance, a sense of equity, and so on, help develop critical thinking skills and enhance real world knowledge.

It was argued that there are three kinds of drawbacks that adversely affect the feasibility of citizenship education in general. These drawbacks

are: citizenship education can lead to a superficial implementation due to a lack of expertise on the part of teachers and head teachers, time and budget constraints and an overcrowded curriculum. The educational goal of active participation was criticised for its pedagogical optimism as to its long-term effects: namely that experiencing participation at school shapes future participative behaviour. The reasons to participate, later, in political and social life are complex and can be influenced by a multitude of factors (Torney-Purta & Amadeo, 2010). Implementing and sustaining participation as an educational approach in schools, is time-consuming, demands a certain kind of expertise from teachers, head teachers and students and requires strong leadership (Keating et al., 2009; Eurydice, 2012). Schools face a challenging situation that can lead to making choices as to which aspects citizenship education has to cover. This is due to the tension between, on the one hand, the broad range of skills, attitudes and behaviours citizenship education has to cover and, on the other hand, the time and budget available to schools to implement and carry this out, the overcrowded curriculum and lastly the available expertise to do so. This lack of focus makes the feasibility of such a participatory approach strongly questionable.

The educational concerns of the main participatory approach focused on the idea of forming certain kinds of citizens through education, fitting the mould of active citizens who participate and engage in their community. The strategic concern dealt with the hope that stimulating these kinds of behaviours will improve society and democracy, thus implying that a complex problem can be solved with a simple solution. This presupposes a continuation of behaviour learned in the present and behaviour displayed in the future (Oelkers, 1984, 1990). These existential hopes are understandable: democracy seems to be the most ideal way of organising and structuring the relationships among citizens and between citizens and the state, and the wish to sustain it is understandable. Nevertheless, such behaviour orientated education limits students' autonomy.

This brings us to the last constraint, the political one: the hidden curriculum of the mainstream participatory approach tends to ignore the discussions held in disciplines such as political philosophy and political sciences on theories of democracy and citizenship. European and international policy makers and a majority of researchers working on citizenship education, stimulate a certain kind of good citizen: one who actively participates, in pursuit of social cohesion and harmony and who places common interests above one's own (Van der Ploeg & Guérin, 2016). Such citizens, moved by their social responsibility, should be intrinsically motivated to participate. Because of this goal of 'making' a certain kind of citizen, the threat of indoctrination is very real. Failing to explicate the theoretical framework used in such education, limits students' and teachers' autonomy as they

are not in a position to deepen different conceptions of democracy and good citizenship, being caught up, as it were, within the confines of a single conceptual framework. This implies enabling students to discuss, criticise and give reasons regarding what it means to be a good citizen. Moreover, what it means to be a good citizen depends on the context. Citizens may find that certain conceptions of a good citizen are more judicious and efficient than others. Therefore, new generations need to possess the resources and abilities to define, again and again, what the meaning of being a good citizen should be, according to the social-political and cultural context they live in. Reducing this conception to being an active citizen, one who participates and engages in his direct community to increase social capital, would limit students' thinking scope regarding the different forms a good citizen and democracy can take.

Group problem solving as an educational approach, both feasible and educationally justified

Now the question raised is whether group problem solving, as a new participatory approach to citizenship education, removes the practical constraint (i.e. the feasibility of such an education), and the fundamental constraint (strategic and educational shortcomings) associated with the mainstream participatory approach. The practical constraint is partially removed because the kind of skills required by teachers and schools focus on developing learning activities that stimulate group problem solving and support the development of specific thinking skills. Through this approach, students also gain real world knowledge because the content of group problem solving involves societal problems. There are two reasons why this concern is only partially taken away. The first is that it still places high demands on teachers' educational skills, epistemological understanding and knowledge. Although schools are already supposed to stimulate such skills, this is not always carried out in a thorough way that would enable students to apply such skills in different contexts (Kuhn et al., 2013). The skills required to teach students to solve societal problems together are specific, such as: argumentation skills, the ability to connect different perspectives, making decisions and thinking together. The second point is that such citizenship education should involve cross-curricular activities and therefore, it requires a different kind of curricular organisation to enable students to deal with such topics on a weekly basis. This is usually less of a problem for primary schools than for secondary schools. In short, the demands made on teachers' skills and on the curriculum still exist but are now more focused and specific. Teachers have to know how to develop such learning activities in which students are asked to collaborate in groups to solve the issue at stake.

The fundamental concern is resolved because the aim of this kind of

citizenship education does not focus on changing behaviour but on stimulating students' autonomy and introducing them to the complexity of reality. This citizenship education is not about making a certain kind of citizen but focuses on giving students the tools that prepare them to deal with societal questions in the most efficient way. It enables them to increase their competence in shaping the future, as solving problems is always in the perspective of the future. As De Haan (2006, p.7) states: "Those who possess this competence can help, through their active participation in society, to modify and shape the future *of* society, and to guide its social, economic, technological and ecological changes along the lines of sustainable development." However, a possible pitfall is still that, while dealing with societal problems, teachers might tend to impose their own points of view. In societal issues dealing with sustainability, for example, sometimes it seems that the answer is simple: reducing one's consumption. As Künzli (2007) noticed during her research, teachers had difficulty putting their opinions and judgements aside and letting students reach their own. Only if teachers allow students to make their own decisions and reach their own conclusions, will the educational concern be dispelled. This means that the chosen topic must be an open question that lends itself to working out different solutions. Choosing such open societal issues, also removes the strategic concern, as students learn that complex problems require resourceful, creative and complex solutions. The last potential objection to be dismissed regarding fostering students' autonomy, is whether this approach might indoctrinate students as, it too, only promotes one particular perception of citizenship. However, one learning goal of the present approach is that the idea of "a good citizen" should be questioned and critically scrutinised in the light of other theories. During their school career, students should learn about these other concepts.

Limitations of group problem solving as citizenship education

There are still a constraint remaining, namely that such deliberative practices are not really facilitated within society. The degree to which schools are used as a remedy for society's problems, depends on the contribution political institutions or other groups ask of the school. This can range from changing the curriculum by integrating new subjects, to developing new pedagogical material. Democracy is at risk, so citizenship education must be integrated in the curriculum. People are overweight, so time must be devoted to healthy eating and sport. There is a financial crisis, so materials helping children to handle money must be developed and used in the classroom. Urgency and media attention seem to push certain topics onto the political and educational agenda. Should education be so reactive to society's problems? Education, as a praxis and as an institution, has its own logic, its own structure and its own goals (Benner, 2005).

This means that education, as an institution, cannot be used as an instrument for the purposes of other institutions. It does not mean that topics that derive from societal concerns cannot be introduced into the curriculum, however the justification of these topics must also be an educational one. In other words: education is an autonomous institution. This implies a non-hierarchical relationship between education and other institutions (Benner, 2005). This non-hierarchical relationship between education as an institution, and other institutions, also means that when one or several institutions ask education to deal with or integrate a new topic, they have to guarantee that what children learn and practise will be useful and meaningful to them later in life. Institutions, as requesters, have to take their own responsibility regarding what they ask of education. If I take the case of epistemic theory of democracy as the basis for citizenship education, then political institutions and others must make sure that the required structures are in place for citizens to deliberate and that power is distributed in such a way as to ensure that that future citizens are in a position to make the necessary decisions. Otherwise, learning is useless. This is one of Benner's regulative principles when considering integrating new subjects in schools. In our present situation, it is unclear and still under discussion where and when citizens might deliberate. There are no structural 'open spaces' where citizens can deliberate (Gastil & Levine, 2005). This would imply that the approach proposed in this dissertation does not meet Benner's regulative principle.

Another limitation that might be perceived is that this approach could be considered too intellectual, concentrating on the rationality of discussion and neglecting the social and emotional processes that might hinder the quality of deliberation. As mentioned in chapter three, being prepared to work together, respecting and valuing each other's ideas, listening to each other's requirements, in order to be able to think together about complex problems, and try to solve them together, implies that students should be thoroughly prepared for this by defining, as a group, the ground rules of deliberation and agreeing to abide by them. These processes are facilitators and should not be a primary educational goal of citizenship education.

It could also be argued that students' moral development is not taken into account and that the learning activities are overly focused on developing thinking skills and allowing the content of societal issues to take precedence. This would be a too narrow view of the kind of moral problems such content contain. It is inherent that students will exchange their values, ideas and thoughts; however, once again, the focus will be on the quality of the arguments given to support a view. Group problem solving requires critical thinking skills and the ability to argue with people with other views on the matter at hand. Perhaps the educational principles might be enhanced with a concept that could help teachers deal with such opposing views and controversial issues.

Sometimes, teachers can foresee the kind of discussions and frictions that might occur, due to the very nature of the student population. This kind of discussion requires that students take a position but also that they think thoroughly about their position.

And lastly, another potential criticism is that such an approach lacks political substance, that it does not enable students to understand the way political life works, its distribution of power and how such power influences politicians' decision making. On the one hand, this approach is not meant to replace subject matter such as civic education, necessary to understand the political workings of democracy. But on the other hand, there is scope within group problem solving as citizenship education to choose topics that lend themselves to having students try to solve problems with a stronger political orientation, for instance involving social injustice or minority rights. Furthermore, in the curriculum, theories of democracy and citizenship should be a subject of discussion and students should be encouraged to think about such controversial concepts.

To date, several critical analyses of the methodology used in the citizenship education research have been carried out (e.g. Torney-Purta, Amadeo and Anodlina, 2010; Manning & Edward, 2014). In the earlier chapters of this dissertation, these main problems have been partially described. One conclusion of this dissertation is that the implementation of group problem solving as an overarching educational goal for citizenship education, the four educational principles and learning goals, place certain constraints on the kind of research that needs to be conducted. The focus of the research is to measure the development of group problem solving skills and, in particular, the development of argumentation skills while making joint decisions. Depending on the kind of citizenship education being implemented, the research design used, and the variables measured must form a coherent whole. Such new explorations could provide answers to the problems encountered in research on citizenship education.

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English Summary

Policy makers in Europe pursue a specific participatory approach to citizenship education, based upon a particular idea of democracy and citizenship. In this approach, schools are required to foster certain virtues such as solidarity, empathy and an active participation that will enhance social cohesion. The present study argues that such an approach to citizenship education holds three constraints, a practical one, a political one and a fundamental one: it is not feasible for implementation in schools (practical constraint); it doesn't explicate and justify the theory of citizenship underlying its idea of 'good citizenship' (political constraint); it aims at 'making' a certain kind of citizen in order to solve society's problems, instead of developing students' autonomous thinking (fundamental constraint). This study develops and justifies an alternative participatory approach to citizenship education, based on the democratic principle of group problem solving. An important part of the justification is to show that the alternative approach meets the three constraints, the practical one, the political one and the fundamental one.

In **chapter two,** European and International research (Eurydice and ICCS) was analysed: we examined the feasibility of the mainstream participatory approach underlying these documents (practical constraint). We conclude that this educational approach to citizenship education may be problematic because all aspects combined – political literacy, critical thinking and analytical skills, values, attitudes and behaviours, and active participation – together place unrealistic demands on the curriculum, on head teachers and on teachers. It is argued that the successful implementation of such a participative approach is unrealistic for three reasons: (1) insufficient specialist knowledge on the part of teachers and head teachers, (2) time and budget constraints and (3) an overcrowded curriculum. It is demonstrated, for instance, that the broad range of themes that political literacy has to cover, requires too much specific knowledge on the part of teachers regarding each of the themes. And also, that critical thinking skills are hard to learn and demand continuous practice. Furthermore, implementing and sustaining an active participation structure within the school and its direct environment also require specific skills and a particular curricular organisation. The demands made on teachers and students regarding the development of certain values, attitudes and behaviour could not be explored due to the lack of conceptual clarity in the documentation under scrutiny.

In **chapter three**, the political constraint is discussed. Kinds of education such as citizenship education are ideology driven, and democracy and citizenship are controversial concepts. There are different conceptions of how democracy should work and what citizenship means. This calls for a justification of the concepts used in citizenship education. It is demonstrated how advocates of the mainstream approach do not explicate the conceptions of democracy and citizenship hidden behind their idea of 'good citizenship'. This lack of justification gives rise to a hidden curriculum, as students are only confronted with one idea of citizenship. When researchers within the mainstream participatory approach acknowledge the controversiality of citizenship and therefore attempt to justify their conception, they either argue mistakenly that there is a partial consensus, or they construct one themselves.

Then, the question raised is if such concepts might be justified in another way. One possible alternative is to position and justify oneself using classification. Classifications can be helpful in structuring different theories of citizenship and in justifying the underlying concepts of citizenship education. However, classifications of theories of democracy and citizenship prove too broad and fail to take variations into account. This does not mean that positioning and justification are impossible. An efficient strategy is to choose a specific variation within one model. In this study, a deliberative democracy within liberalism was chosen. This choice is explained further and justified in chapter six.

The problems pertaining to the mainstream participatory approach to citizenship education are not only practical and political but also fundamental, the third constraint. In **chapter four**, this fundamental constraint is discussed in terms of two shortcomings: strategic and educational. Mainstream policy believes that schools can contribute substantially to a better world and that this will happen by "making" a certain type of citizen, characterised by social awareness, who is willing to participate, to be responsible, active, has a certain sense of equity, and so forth. The educational constraint is that this limits students' autonomy. The strategic constraint is that it reduces the complexity of reality to simple solutions which also limits students' autonomy. Both shortcomings are illustrated by examples from the field of education for sustainable development, a variant of participatory citizenship education.

When exploring the literature on education for sustainable development, it is noticed that, in German speaking countries in particular, educationalists have tried to develop approaches that safeguard against the strategic and educational shortcomings: the Gestaltungscompetenz approach of Transfer 21, the socio-ecological approach of Kyburz-Graber, Hofer and Wolfberger and the educational principles for sustainable development of

Künzli and Bertschy. In the critical analysis and discussion of these three approaches, the educational approach of Künzli and Bertschy is the only one that, to a certain extent, successfully meets the two concerns. In their approach, students think together about societal questions, work together to investigate them, analyse them and reflect upon them. This approach fosters the development of autonomy and takes into account the complexity of reality.

In analysing Künzli and Bertschy's idea of education for sustainable development, it is also noted that this approach may provide a partial answer to the issue of feasibility. Künzli and Bertschy have implemented it in primary schools, collaborating with teachers and apprentice teachers. Therefore, Künzli and Bertschy's approach seems to be attractive for citizenship education. There is only one drawback. It appears, at first sight at least, to be cognitively too demanding for primary students.

Chapter five addresses this problem. Künzli and Bertschy developed six educational principles in order to implement sustainable development in primary school. Two of these, namely connected learning and vision orientation, seem to ask too much of students' cognition and metacognition. To assess these cognitive and metacognitive demands, eight leading experts in cognitive development, educational psychology and the philosophy of education were asked to discuss two of Künzli and Bertschy's lessons, based upon the two educational principles. The main research question put to this panel of experts was: are we asking too much of students, aged between seven and nine, when we engage them in learning activities involving the interrelation of different types of knowledge (f.i. historical, economic, geographical), different perspectives of several stakeholders (f.i. consumer, farmer, retailer) and different dimensions (social, economic, ecological - local, global - past, present and future)?

The strategy chosen was an 'interacting group method'. Through an expert meeting, it was possible to capitalise on instant expert knowledge narrowed down to the research question. Furthermore, letting experts deliberate, share and reflect upon their knowledge in a structured manner contributed to more nuanced judgements. The lessons discussed by the experts were already implemented in primary schools. During a two-day meeting, the experts responded to this question. The two days were videotaped and the discussion among experts was transcribed and analysed, using the methods of open, axial and selective coding. The experts' conclusions were positive regarding primary students' possibilities to engage in connected learning; vision orientation, however, was deemed too complex. This means that vision orientation would need to be improved in order to be within the students' reach. The experts also highlighted constraints and demands made by such lessons on teachers and the curriculum. Secondly, teachers' competences

should be improved in order to teach such citizenship education.

Building on Künzli and Bertschy's approach to education for sustainable development, **in chapter six**, my alternative approach to citizenship education is elaborated. Its source is a specific idea of democracy: an epistemic theory of deliberative democracy. This theory is explicated and justified and subsequently translated into learning activities.

According to the theory of deliberative democracy, democracy is in its essence collective decision making and, according to proponents of a deliberative democracy, deliberation is the best way of making collective decisions. Through deliberation citizens become better informed, develop a greater understanding of the issues at stake and are ideally able to take better decisions. Within the deliberative democracy framework, an epistemic theory of deliberative democracy is chosen because this focuses on the quality of discussion among citizens and on shared knowledge. Hence, group problem solving is a core competence of citizenship. An epistemic theory of deliberative democracy is also educationally advantageous and can be implemented at school using the educational approach of group problem solving.

Group problem solving leads to a deepening of the understanding of a problem by developing potential solutions and weighing the pros and cons of these before making a decision. Students thus learn to make decisions together under uncertainty, thereby attempting to find solutions. They experience how decisions are made (politically, legally) and how they can be influenced. It enables students and teachers to talk about power, institutions and the kind of participation that might be effective, and also about what good citizenship means and how society could ideally evolve. One consequence is that the nature of citizenship itself might be called into question through this approach to citizenship education, meaning that the political constraint, that is problematic in the mainstream participatory approach, is met.

Deliberative democracy asks a lot of its citizens and therefore also of citizenship education. To make a significant contribution to collective decision making, citizens must be able to deliberate on all sorts of issues, to evaluate these, find solutions and ideally reach shared agreements. For citizenship education this means: acquiring knowledge on societal issues and using this knowledge to grasp their complexity, understand and argue about potential solutions. Citizenship education, therefore, should exercise students' skills of thinking and reflection regarding the complexity and controversiality of the issue at hand. The process of gaining knowledge, evaluating this knowledge and using it to understand, think and reflect on societal issues, fosters students' autonomy as, in this way, they are enabled to form their own judgements and make their own decisions. One consequence is the leading role for the process of engaging in societal issues in a reflective manner. Therefore, in this way,

citizenship education meets the fundamental constraint that is problematic in the mainstream participatory approach.

To achieve a further translation of citizenship education as an epistemic theory of deliberative democracy, the deliberative practice is thoroughly described. The demands it makes on citizens' competences and thinking capacities are translated into educational principles. Then, group problem solving is used as an organising principle. It sequences the learning activities into four phases: Problem initial analysis, problem analysis, decision making and debriefing. The educational principles are integrated at each stage of these sequences. The learning activity "sunscreen and nanotechnology" is used to illustrate this process. In this way, citizenship education meets, to an important extent, the practical constraint that is problematic in the mainstream participatory approach, due to its focus on gaining real world knowledge and stimulating analytical and critical thinking skills, something general education is already doing. To a certain degree, this is very demanding: it requires the organisation of cross-curricular activities and places high demands on teachers' own general and subject knowledge and on their thinking skills. However, it does not call for a different organisation of the school.

Nederlandse samenvatting

Beleidsmakers in Europa streven een participatieve benadering van burgerschapsvorming na, die gebaseerd is op een bepaalde opvatting van democratie en burgerschap. In deze benadering, wordt van scholen gevraagd dat zij bepaalde waarden bevorderen, zoals solidariteit, empathie en een vorm van actieve participatie gericht op het vergroten van sociale cohesie. De voorliggende studie betoogt dat een dergelijke benadering van burgerschapsvorming een drietal beperkingen met zich meebrengt, een praktische, een politieke en een pedagogische: implementatie in de school is niet haalbaar (praktische beperking); ze laat na de theorie van burgerschap die ten grondslag ligt aan haar idee van 'goed burgerschap' toe te lichten en te rechtvaardigen (politieke beperking); ze is erop gericht een bepaald type burger te 'maken' teneinde maatschappelijke problemen op te lossen, in plaats van zich te richten op het ontwikkelen van autonomie bij de leerlingen (pedagogische beperking). Deze studie ontwikkelt en rechtvaardigt een alternatieve participatieve benadering van burgerschapsvorming, gebaseerd op het democratische principe van groepsgewijs probleem oplossen. Een belangrijk aspect van de rechtvaardiging is te laten zien dat deze alternatieve benadering tegemoetkomt aan de drie genoemde beperkingen, de praktische, de politieke en de pedagogische.

In **hoofdstuk twee,** wordt Europees en Internationaal beleidsonderzoek (Eurydice en ICCS) geanalyseerd: we onderzochten de haalbaarheid van de gangbare participatieve benadering die ten grondslag ligt aan deze documenten (praktische beperking). We concluderen dat deze benadering van burgerschapsvorming problematisch zou kunnen zijn, omdat alle aspecten gecombineerd – politieke geletterdheid, kritisch denken en analytische vaardigheden, waarden, houdingen en gedragingen, en actieve participatie – onrealistische eisen stellen aan het curriculum, aan schooldirecteuren en leerkrachten Er wordt beargumenteerd dat een succesvolle implementatie van een dergelijke participatieve benadering onrealistisch is, om drie redenen: (1) onvoldoende specialistische kennis bij leerkrachten en schooldirecteuren, (2) tijd- en budgetbeperkingen en (3) een overladen curriculum. Er wordt bijvoorbeeld aangetoond, dat het brede scala aan thema's dat politieke geletterdheid moet omvatten, teveel specifieke kennis vraagt van leerkrachten met betrekking tot elk van de thema's. En ook, dat kritische denkvaardigheden moeilijk te leren zijn en om voortdurende oefening vragen. Bovendien vraagt het implementeren en in stand houden van

een actieve participatiestructuur binnen de school en zijn directe omgeving ook om specifieke vaardigheden en een bepaalde organisatie van het curriculum. De eisen die gesteld worden aan leerkrachten en leerlingen met betrekking tot de ontwikkeling van bepaalde waarden, houdingen en gedrag, konden niet worden nagegaan door gebrek aan conceptuele helderheid in de onderzochte documentatie.

In **hoofdstuk drie**, wordt de politieke beperking bediscussieerd. Educaties, zoals burgerschapsvorming, zijn ideologisch gemotiveerd, en democratie en burgerschap zijn controversiële concepten. Er zijn verschillende ideeën over hoe een democratie zou moeten functioneren en wat burgerschap betekent. Dit vraagt om een gedegen rechtvaardiging van de concepten die gebruikt worden in burgerschapsvorming. Er wordt getoond hoe in het gangbare beleid nagelaten wordt de vooronderstelde ideeën van democratie en opvattingen van burgerschap te expliciteren. Zo'n tekort aan rechtvaardiging kan in de praktijk leiden tot een verborgen curriculum, omdat leerlingen dan vertrouwd worden gemaakt met alleen één idee van burgerschap. Ook wordt laten zien hoe onderzoekers die de gangbare benadering volgen en *wel* de controversialiteit van burgerschap erkennen, ten onrechte betogen dat er sprake is van een gedeeltelijke consensus of zelf een consensus construeren.

Dit roept de vraag op hoe bij rechtvaardiging van burgerschapsvorming de controversialiteit recht gedaan kan worden. Een voor de hand liggende optie is om gebruik te maken van classificaties. Maar classificaties van theorieën over democratie en burgerschap blijken te breed en houden geen rekening met variatie binnen theorieën. Dit betekent niet dat positionering en rechtvaardiging onmogelijk is. Een efficiënte strategie is om een specifieke variant binnen één model te kiezen. In de voorliggende studie werd gekozen voor een variant van deliberatieve democratie. Deze keuze wordt nader uitgelegd en gerechtvaardigd in hoofdstuk zes.

De problemen die te maken hebben met de gangbare participatieve benadering van burgerschapsvorming zijn niet alleen praktisch en politiek van aard, maar ook pedagogisch, de derde beperking. In **hoofdstuk vier**, wordt deze pedagogische beperking besproken. Het gangbare beleid gaat ervan uit dat scholen substantieel kunnen bijdragen aan een betere wereld door middel van het 'maken' van een bepaald type burger, een burger met sociaal bewustzijn en gevoel voor rechtvaardigheid, die bereid is om te participeren, verantwoordelijkheid te dragen, actief te zijn, enzovoort. Dit gaat om twee redenen ten koste van de autonomie van de leerlingen. Ten eerste wordt de complexiteit van de realiteit gereduceerd waardoor de leerlingen de indruk krijgen dat simpele oplossingen toereikend zijn. Ten tweede worden de leerlingen specifieke normen voor gedrag en levenswijze voorgehouden.

De pedagogische tekortkomingen worden geïllustreerd aan de hand van voorbeelden op het gebied van onderwijs voor duurzame ontwikkeling, een variant van participatieve burgerschapsvorming.

Bij het bestuderen van de literatuur over onderwijs voor duurzame ontwikkeling, valt op dat pedagogen, met name in Duitstalige landen, gepoogd hebben benaderingen te ontwikkelen die de pedagogische tekortkomingen verhelpen: de Gestaltungscompetenz benadering van Transfer 21, de socio-ecologische benadering van Kyburz-Graber, Hofer en Wolfberger en de pedagogische principes voor duurzame ontwikkeling van Künzli en Bertschy. Een kritische analyse en discussie van deze drie benaderingen laat zien dat alleen de benadering van Künzli en Bertschy daar verhoudingsgewijs in slaagt. In hun benadering wordt aan leerlingen gevraagd gezamenlijk maatschappelijke kwesties te overdenken, samen te werken om deze te onderzoeken, te analyseren en erover te reflecteren. Deze benadering stimuleert de ontwikkeling van autonomie door het oordeelsvermogen te oefenen en recht te doen aan de complexiteit van de werkelijkheid.

Bij het analyseren van de ideeën van Künzli en Bertschy over onderwijs voor duurzame ontwikkeling, wordt ook opgemerkt dat deze benadering mogelijk ook een gedeeltelijke oplossing biedt voor het probleem van de haalbaarheid. Künzli (2007) en Bertschy (2007) hebben hun benadering geïmplementeerd op basisscholen, waarbij ze samenwerkten met leerkrachten en leerkrachten in opleiding. Om deze redenen lijkt de benadering van Künzli en Bertschy aantrekkelijk voor burgerschapsvorming. Er is slechts één nadeel. De benadering lijkt cognitief te veeleisend voor basisschoolleerlingen.

Hoofdstuk vijf behandelt dit probleem. Künzli en Bertschy ontwikkelden een zestal pedagogische principes om duurzame ontwikkeling in het basisonderwijs te implementeren. Twee van deze, namelijk netwerkleren en visie-oriëntatie, lijken te veel te vragen van de cognitieve en metacognitieve vaardigheden van leerlingen. Om een beter beeld te krijgen van deze cognitieve en metacognitieve eisen, werden acht vooraanstaande deskundigen op het gebied van cognitieve ontwikkelingspsychologie, onderwijspsychologie en theoretische pedagogiek gevraagd om twee van de lessen van Künzli en Bertschy, gebaseerd op de twee pedagogische principes, tijdens een tweedaagse bijeenkomst te komen bediscussiëren. De voornaamste onderzoeksvraag die aan dit deskundigenpanel werd voorgelegd, luidde: vragen we niet teveel van zeven- tot negenjarige leerlingen, wanneer we hen laten deelnemen aan leeractiviteiten die verschillende soorten kennis met elkaar verbinden (bijv. historisch, economisch, geografisch), en tevens verschillende perspectieven van uiteenlopende belanghebbenden met elkaar in verband brengen (bijv. consument, boer, winkelier) en verschillende dimensies (sociaal, economisch, ecologisch - lokaal, wereldwijd – verleden, heden en toekomst)?

De gekozen strategie was een 'interactieve groepsmethode'. Door middel van een expertmeeting was het mogelijk te kapitaliseren op beschikbare deskundigheid, toegespitst op de onderzoeksvraag. De deskundigen konden met elkaar delibereren, hun kennis delen en op een gestructureerde manier reflecteren waardoor de oordelen extra genuanceerd werden. De lessen die door de deskundigen werden bediscussieerd, waren reeds geïmplementeerd in het primair onderwijs. Gedurende de tweedaagse bijeenkomst reageerden de deskundigen op deze vraag. Van de beide dagen werden video-opnames gemaakt en de discussie van de deskundigen werd opgetekend en geanalyseerd door gebruik te maken van open-, axiale en selectieve codering. De conclusies van de deskundigen over de mogelijkheden van de leerlingen om te netwerkleren, waren positief; daarentegen werd visie-oriëntatie te complex geacht. Dit betekent dat het principe van visie-oriëntatie aangepast zou moeten worden. Tevens wezen de deskundigen op belemmeringen en eisen die dergelijke lessen stellen aan leerkrachten en het curriculum. De competenties van leerkrachten zouden moeten worden verbeterd om hen in staat te stellen een dergelijke burgerschapsvorming te realiseren.

Voortbouwend op de benadering van onderwijs voor duurzame ontwikkeling van Künzli en Bertschy, wordt **in hoofdstuk zes** een alternatieve benadering van burgerschapsvorming uitgewerkt. Vertrekpunt is een specifiek concept van democratie: een epistemische theorie van deliberatieve democratie. Deze theorie wordt eerst uiteengezet en gerechtvaardigd en vervolgens vertaald in leeractiviteiten.

Volgens de theorie van deliberatieve democratie is democratie in essentie collectieve besluitvorming en is deliberatie de beste manier om te komen tot collectieve besluiten. Door deliberatie raken burgers beter geïnformeerd, ontwikkelen zij meer begrip van kwesties en zijn ze bijgevolg in staat betere besluiten te nemen. Gekozen wordt voor de epistemische variant van de deliberatief democratische theorie vanwege de focus op de kwaliteit van de discussie en op het delen van kennis. In deze variant is groepsgewijs probleem oplossen een kerncompetentie van burgerschap. Groepsgewijs probleem oplossen kan in het onderwijs geoefend worden.

Burgerschapsvorming in deze zin is pedagogisch gezien gunstig omdat groepsgewijs probleem oplossen bevorderlijk is voor de autonomie. Groepsgewijs probleem oplossen leidt tot een verdieping van het begrip van een probleem door de ontwikkeling van potentiële oplossingen en door voor- en nadelen ervan af te wegen alvorens een besluit te nemen. Hiermee leren leerlingen gezamenlijk besluiten te nemen onder condities van onzekerheid, waarbij ze proberen oplossingen te vinden. Ze ervaren hoe besluiten worden genomen (politiek, wettelijk) en hoe deze kunnen worden beïnvloed. Dit stelt leerlingen en leerkrachten in staat om zaken als macht en instituties en ook

het soort participatie dat mogelijk effectief is, te bespreken; het stelt hen ook in staat te praten over de betekenis van goed burgerschap en over hoe de samenleving zich het beste kan ontwikkelen. Dit betekent dat de politieke beperking, die een probleem vormt in de gangbare participatieve benadering, wordt verholpen.

Deliberatieve democratie vraagt veel van haar burgers en daarmee ook van burgerschapsvorming. Om een betekenisvolle bijdrage te leveren aan collectieve besluitvorming, moeten burgers in staat zijn te delibereren over allerlei soorten vraagstukken, deze te beoordelen, oplossingen te vinden en, in het ideale geval, gedeelde overeenstemming te bereiken. Voor burgerschapsvorming betekent dit: kennis verwerven over maatschappelijke vraagstukken en deze kennis gebruiken om de complexiteit ervan te vatten en te argumenteren over potentiële oplossingen. Burgerschapsvorming moet dan de denk- en reflectievaardigheden van leerlingen oefenen. Het proces van kennis verwerven, kennis evalueren en maatschappelijke kwesties begrijpen en erover reflecteren bevordert de autonomie van leerlingen, aangezien dit hen in staat stelt tot eigen oordelen te komen en hun eigen besluiten te nemen. Daardoor wordt tegemoetgekomen aan de pedagogische beperking, die een probleem vormt in de gangbare participatieve benadering.

Met het oog op nadere uitwerking van burgerschapsvorming passend bij de epistemische theorie van deliberatieve democratie, wordt de deliberatieve praktijk uitgebreid beschreven. De eisen die deze stelt aan de competenties van burgers en aan hun denkcapaciteiten worden vertaald in didactische principes. Vervolgens wordt groepsgewijs probleem oplossen gebruikt als organiserend principe. Dit structureert de leeractiviteiten in vier opeenvolgende fases: initiële probleemanalyse, probleemanalyse, besluitvorming en debriefing. De didactische principes worden geïntegreerd tijdens elke opeenvolgende fase. De leeractiviteit “zonnebrandcrème en nanotechnologie” dient als voorbeeld om dit alles te illustreren. Op deze manier zal burgerschapsvorming in belangrijke mate tegemoetkomen aan de praktische beperking die problematisch is in de gangbare participatieve benadering, door haar focus op het verwerven van echte wereldkennis en het stimuleren van analytische en kritische denkvaardigheden, iets wat algemene vorming feitelijk al doet. Tot op zekere hoogte is dit erg veeleisend: het vraagt om het organiseren van vakoverschrijdende activiteiten en stelt tegelijkertijd hoge eisen aan de eigen algemene- en schoolvakgerichte kennis van leerkrachten en aan hun denkvaardigheden.

Appendix One

Expert meeting –14th of April - Connected learning

General question

Do we ask too much of students, aged between 7 and 9, when we engage them in learning activities interrelating different types of knowledge (historical, economic, geographical…), different perspectives from several stakeholders (consumer, farmer, retailer…) and different dimensions (social, economic, ecological - local, global - past, present and future)?
Students have to interrelate different kinds of knowledge and dimensions at two main levels:

- At the level of the stakeholder
- At the level of the whole chain of stakeholders

The different kinds of knowledge, depending on the topic at hand, can be geographical, historical, economic, ecological, psychological…
The dimensions the students have to interrelate are: social-cultural, economic, ecological - local, global – past, present, future.

Definition of connected learning

Connected learning means looking at a subject from different perspectives and interrelating these different perspectives. This interrelatedness has to be carried out in three fields:

(a) The connection between "present-day and future": What impact will our decisions have on today's generation, as well as, on the next?

(b) The network of ecological, economic and socio-cultural dimensions: Are our decisions compatible with important economic, ecological, socio-cultural and general social ideas? Which competing and corresponding interests of stakeholders are to be found?

(c) The local and global connections: What impact will our decisions have on people in my neighbourhood, in other countries, on public welfare?

This means:

- Being able to identify and differentiate perspectives

- Being able to identify and analyse main and secondary consequences
- Being able to interrelate different perspectives

Specific questions for connected learning

For connected learning, the general question has been split into the following:
(1) Can students take into account the conflicting interests of different stakeholders while elaborating solutions?
(2) Can students interrelate all these dimensions and knowledge while elaborating solutions?
(3) Can students recognise and show explicitly what the consequences would be for the whole chain of stakeholders, if one parameter changes?

Answering these questions also entails defining:

(a) the conditions under which students can achieve this kind of reasoning,

(b) the parameters playing a major role in this and

(c) the factors required to foster such reasoning in the long term.

(d) If students cannot achieve this kind of reasoning, then, the relevant question to be raised is: What can we expect from students (the extent and limits of their reasoning regarding these questions)?

Theme Toy

Elements fostering connected learning in the lesson Toy

The lessons regarding the theme "Toy" focused on stakeholders relevant to this subject. Highlighting the different stakeholders' perspectives constituted the thread of the lessons. The children analysed different roles (e.g. consumers, manager of a toy department, director of a toy factory in China, adults [parents, relatives] etc.) and their respective interests in relation to the theme. They learned to put themselves in the stakeholders' place and also to argue from their point of view. During the lessons, the teachers even ventured, and with success, to explore, along with the children, the global connections of the themes. The production and business conditions inland and abroad were discussed. Then, the situation of Chinese migrant workers was also explored; this part of the theme seemed to fascinate the children. Dealing with the stakeholders and exploring their interests, took place during actual encounters but also in the classroom, aided by various materials and tutorials. Every new stakeholder was added onto the blackboard along with their interests, and the additional information would

be brought into relation with already known stakeholders, in the form of a net, that would grow continuously. Thus, in the course of the lesson, the different compiled elements of the theme were brought into relation with each other. The acquired knowledge was regularly consulted to throw light on the economic, socio-cultural and ecological, as well as local, global and future consequences of decisions for the different stakeholders. Positive and negative consequences needed to be considered carefully in order to make knowledgeable, reasonable and fair decisions. Towards the end of the lessons, a role play was performed to deepen the knowledge about the different implications of certain situations on the various stakeholders. Following the role play, the children had to define their own criteria for buying toys and justify these.

The children consistently reflected on the matter. The lessons with the theme "Toy" were characterised by regular reflections based on the acquired experiences. These experiences were discussed and processed through individual work, team work or in assembly. In this way, the acquired knowledge was made clear to the children and could be verbalised. In their own role, as "toy consumer", for example, the children were prompted to explain their own tastes and needs. The excursions to the different stakeholders of the toy business were carefully prepared: the children had to exchange their knowledge, define their expectations regarding the roles and interests of the stakeholders, and write down questions they wished to ask. Following the visits, a series of varied evaluations took place. On one hand, the arguments of the stakeholders were written down and analysed thoroughly (e.g. in role plays), on the other hand, they were compared with the children's expectations and previous knowledge, and new insights were talked about. The individual insights were recorded in a learning journal kept by the children during the whole project. Furthermore, the children regularly attempted to connect their new findings to their understanding of stakeholders. However, reflections took place in connection with the social learning objectives as well. For example, teamwork would frequently be reflected on in relation to conditions of success or failure. Based onconcrete experiences in group decisions, the different ways of making decisions were talked about (e.g. majority decisions, consensus decisions, chance decisions, etc.), systematised and defined in the form of symbols. Aided by these symbols, the pros and cons of different ways of resolving conflicts were discussed—also in relation to different decision situations. It was interesting that many groups of children made a conscious and explicit choice for one of the discussed ways, when it came to decision making.

Theme Chocolate

Elements fostering connected learning in the lesson Chocolate

The teachers used different approaches to foster connected learning. An important pedagogical instrument was a net on the blackboard. This net was developed during the lesson. The objective of this network was to visualise the diversity of connections among the different stakeholders. Each new stakeholder was placed on the net, along with their interests and needs. Then, these interests and needs were related to those of other stakeholders. An important part of the lesson was to learn about each stakeholder and their diverse needs and interests. Through the use of different teaching forms and methods, the students were invited to imagine themselves in the role of a stakeholder and to evaluate the different consequences of the decisions taken for the stakeholders. As an assignment, the students had to develop a role play starting with the scene of a cacao farmer having a bad harvest. The children were encouraged to make the situation evolve further and to predict how each stakeholder would react.
Here again, as in other exercises, the differences of perspective, as well as, the interconnectedness of the stakeholders were explicitly stated. These perspectives and dependences were also discussed by using the net on the blackboard. In order to be able to take into account the different perspectives of all the stakeholders in the decision-making process, students were asked to elaborate solutions which would be fair, considering the stakeholders' different interests. The role of the stakeholders, and the effects of the different solutions on them, were reflected on, repeatedly, in the light of their interests and needs. The students played the role of the cacao farmer, the director of a chocolate company, or other stakeholders. In these roles, they were given an amount of money to be distributed among themselves and they had to come to an agreement as to who receives what. At the end of the role play, the teacher explained the meaning of "fair trade" and made clear why chocolate is so cheap nowadays. In another exercise, the students compared fair trade chocolate with conventional chocolate. Using price, taste, cacao farmer and ecology as criteria, the students gave happy smiley's and unhappy ones to different types of chocolate.

Stakeholders and their interests played a major role in the lesson, especially the cacao farmer from Africa. The students learned about the conditions under which a cacao farmer and his family lived in Ghana. Then, they compared their own life style with that of the African child. They discussed the transport of cacao beans and the stakeholders participating in this process. Through different exercises and the net on the blackboard, the students were made aware that decisions can have global impacts, in this

case on the cacao farmer. Another example, taken from this lesson, was a following role play: the director of a chocolate company, wanting to produce more chocolate, turns to the cacao farmer. Playing this situation helped the students to progress further.

Appendix Two

Axial Coding – Coding tree

Name	Sources	References	Created On
Constraints	**2**	**45**	**08-08-2011 09:43**
Emotion	1	4	13-07-2011 08:14
Encoding	1	6	22-07-2011 08:12
Inhibition	1	16	29-05-2011 12:50
Overload	2	19	28-05-2011 12:49
Curriculum	**2**	**63**	**20-07-2011 11:39**
Learning goals	2	16	12-06-2013 15:42
Subject matter	1	15	13-06-2013 11:37
Time	2	3	05-06-2013 16:57
Transfer	2	9	26-05-2011 16:54
When to start	2	20	03-06-2011 11:16
Developmental support	**2**	**21**	**08-08-2011 10:01**
Environmental factors	2	7	14-07-2011 07:27
Knowledge	2	10	29-05-2011 11:18
Language	1	4	26-05-2011 16:58
Pedagogics	**3**	**43**	**30-05-2011 12:50**
Collaborative working	3	40	26-05-2011 16:55
Narrative	1	3	14-07-2011 07:40
Students' thinking skills	**4**	**145**	**12-06-2013 10:02**
Argumentation	1	34	26-05-2011 16:58
Counterfactual thinking	3	29	13-07-2011 07:53
Dealing with uncertainty	1	2	14-07-2011 08:27
Problem solving	3	31	13-07-2011 09:54
Taking Perspectives	2	49	28-05-2011 12:52
Teacher's skills	**2**	**13**	**26-05-2011 16:55**
Argumentative skills	1	4	26-05-2011 16:55
Scaffolding	2	8	26-05-2011 16:55
Threats	**2**	**7**	**13-06-2013 13:35**

Appendix Three

Example – Detailed code -Collaborative working

<Internals\\Expert Meeting Eerste dag\\Uitwerking connected learning versie 1> - § 24 references coded [10.22% Coverage]

Reference 1 - 0.09% Coverage

Collaborative working can serve as a resource for managing the overload.

Reference 2 - 0.43% Coverage

The concept Liz is referring to is self-regulated learning. The capacity of regulating its own learning is acquired in these kinds of group contexts where different kinds of contributions are being made (opposing point of view, try to agree on strategies). The impact of these kind of processes are subsequently internalised (classic Vygotsky type of framework).

Reference 3 - 0.26% Coverage

because we would like to take advantage of collaboration between the two and there was some previous work. Velden (?) shows that students who worked in pairs collaborating did better than students that worked alone.

Reference 5 - 0.30% Coverage

Putting kids together and working together will not help either and when kids work together, it is often a waste of time for the kids: they lose track of what they were doing or lose interest. Their plans often depend on other people's co-operation.

Reference 6 - 0.49% Coverage

And the third thing you said: if you put them in groups they will mess things up. But the work Andy's and Christine's work on collaborative learning shows that it is not true. If you put children in groups and they are skilled to work together, you get direct post-test in science, physics and maths, where they understand the concept months later better because they worked in groups together.

Reference 7 - 0.96% Coverage

has to do with the nature of collaborative learning, there is one line of research on this and, I think, that there is a data point that I find quite striking, it comes from Driggen at Hebrew university. He asked to solve two problems collaboratively, one kind of problem was one where children did not have any sort of prior knowledge, the more advanced one brought along the less advanced one, just as what you will predict. One kind of problem is where children had very strong misconception and when you paired kids together, it was typical the confident incompetent who would bully the other one into believing a misconception that they previously did not have. So, it is dangerous stuff, so it is not always bringing people together and just, but bringing them together it will make the case.

Reference 8 - 0.22% Coverage

All the research shows that, as you put the children together, we are wasting time. The point is if the teacher enables them to work together effectively. So, the bullying does not go on.

Reference 9 - 0.30% Coverage

Actually, of the parameters that affect the quality of group work that emerges and for instance the situation having two kids together and one is bullying the other. I mean that is a situation to avoid. You do not use dialogue with younger children.

Reference 10 - 0.31% Coverage

I really want to pick on the point about dialogue and the reason why it is important. But I suppose these several dimensions that I want to emphasis. One reason why dialogue is key, is that it creates some kind of direct awareness of contrasting perspectives.

Reference 11 - 0.75% Coverage

The second reason is perhaps important... it has to do with something of these issues about working memory and cognitive load that what dialogue does when it reveals different perspectives it actually provides you with these physical place hold. So, you can may catch hold of that remembering that person and their view point coming with it. And we know from developmental work that having these external places hold, it is something

that is effective, so I think other groups that can help with cognitive load, but simply having these kind of different place holds for different perspectives is actually something which is helpful.

Appendix Four

Examples of fragments per sub-code

Code	Examples of fragments
Constraints	
Emotion	Future scenario's might be so terrifying, that sort affect your thinking about what you can do. There are ways of talking about future that may be difficult.
Encoding	Important is that young children fail to encode the critical dimensions of the problems, they fail to consider the distance from the middle point and when you show them the right answer and show problems that do balance and that don't and ask them to reproduce that on their own, they often fail to encode the distance information and, consequently, showing them the right answer does not give them any traction. This failure of integrating multiple dimensions, we see in a large number of tasks.
Inhibition	Elementary students have difficulty to inhibit, but it does not mean that they cannot do it. But if they are confronted with new situations: particular problems with inhibition. In familiar situations: yes.
Overload	When you encounter for the first time this kind of knowledge and you manipulate it in order to solve problems, the load is then high because you do not have the strategies. You have to sequence the strategies that might be effective. As soon as you know the strategies and how to manipulate the information: the load is diminishing

Code	Examples of fragments
Curriculum	
Learning goals	The expectation (of the teacher) varies and changes with age. At 6, you want children to give reasons for (everything). At age 13, you want them to give good reasons and be able to criticise these reasons. It is a question of looking at what age, what level of expectation. Imagination can be helpful for children in order to stimulate some kind of reasoning that have some connection with reality.
Subject matter	After all I have heard yesterday and today, one of my fundamental question, I think, is "Do you think we need a specific subject, like education for sustainable development, to reach the goals of the program?"
Time	we need to stress the kind of advocate that an interesting curriculum artefact as this program. Usually, policy makers give such program one shot. But if there is development over time, there has to be more than one iteration of that. It has to occur often.
Transfer	Problem of transfer. Apply the capacities in another context situation. How do we make people apply the sophisticated competencies they have learned to other situations, where they should apply it when we are not around to prompt them?
When to start	when do we start? 5 year can do it, so it is the time to implement it. So we also could wait to 10 because they even can do it better. There is an issue when do we start this process.

Code	Examples of fragments
Developmental support	
Environmental factors	one of my conclusions is that it is possible to train children in the specific skills of reasoning and of working together and participating in the discussion together. What I am still skeptical about is the need, if it's really needed to do it, because children have so much influence at home
Knowledge	So, early knowledge does better and early schooling has to build on prior knowledge and, especially, this is particularly the case for conceptual knowledge. In primary school, we lay the foundation for later learning.
Language	Language provides an explicit mapping but more implicit perceptions can be aligned with. Language will make these implict perceptions more manipulable. I mean perceptions can be expressed in one way or the other.
Pedagogics	
Collaborative working	What you need to have in order to get effective group work: first of all you need to have groups where you've got different view points accross the members and you have to have reason for expressing these differences
Narrative	But again ideally I mean what people have shown that is that the home history of these children in terms of how home narrative rich they are, how dialogue rich they are, will massively influence how prepared they are for taking on tasks and the same task might be do-able or not do-able by children depending on that

Code	Examples of fragments
Students' thinking skills	
Argumentation	Epistemological belief needs to be developped in order to support these abilities. Because in real life as school stops, if you do not appreciate the value of argumentation you are not going to use it in your own life. So there is another aspect in epistemological belief and that is the intellectual values that also need to be taken into consideration
Counterfactual thinking	When we are engaged with these counterfactual there are really two things that you have to do. firstly you have to recognise that there is a choice point and then you have to track through the consequences of the choices. The reason why the standard counterfactual is actually easier than other options is that the choice point has already been made as part of the task and they have to recognise what the choice point is. And the reason why undertemined, they did better on that, is because the choice point is to come and therefore most salient part of the task.
Dealing with uncertainty	So, it does not sound, I am trying to find a way to ....., if the point of this is to get them seriously developed for the future as good citizens, then they have to take the responsibility on them that they are not probably going to get a final solution to these problems that's going to look ....,and so in a way that there should be something in the tasks to give them what you want them to understand and certainly it should be.
Problem solving	The children's problem solving involves a kind of mixture of wisdom and folly (example of the child who wants to get the mail - creative solution but widely ....).
Taking Perspectives	But the thing that struck me, when we talk about perspective taking and the ability to adopt different positions, if we are talking about the kind of capacity to resolve conflicting positions. Actually, it is about getting to a point of view that probably does not exist yet and is beyond what people thought. Synthesis, think things into a new position. And this is what we try to encourage.

Code	Examples of fragments
Teacher's skills	
Thinking skills	According to the literature, many of the teachers themselves are not capable of such thinking.
Scaffolding	Feeding appropriate vocabularies, using language in order to point to the right things to think about, not necessarily engaging in explanation. It is scaffolding.
Threats	The worry of oversimplifying things is probably not the best way to begin with these tasks even if you want to have something small from them

Appendix Five

Curriculum Vitae

PERSOONLIJKE GEGEVENS

Naam: Guérin
Voornaam: Laurence
Geboortedatum: 16.05.1971

WERKERVARING I.H.A.

Sept. 2017	*Practor Burgerschap bij het ROC van Twente*
2006-heden	*Pabo Saxion Deventer*
2015-heden	*Projectleider "Samenwerken aan Bèta Burgerschap"; tevens design, initiatie en voorbereiding, inclusief werving van subsidies en participanten (scholen, medeonderzoekers, bedrijven, instellingen) en leden van het wetenschappelijke comité.* Vierjarig project waarin onderzoekers, bedrijven, instellingen en po- en vo-scholen samenwerken aan de ontwikkeling en implementatie van programma's van leeractiviteiten Bèta en Techniek die burgerschapsvormend zijn. Ook de Universiteit Twente is betrokken bij dit project. Impressie van het project: https://www.youtube.com/watch?v=116EZQDpefI http://www.techyourfuture.nl/nl/a-436/samen-werken-aan-bèta-burgerschap Academic Director van de Master Leren en Innoveren voor Onderzoekende Ontwerper Leiding in het opzetten van de Mastertrack Montessori/ Dalton en ROC.
2014-heden	*Academic/Course Director van de Master Leren en Innoveren*

voor Beginnende Professionals in samenwerking met Maaike Vervoort (duofunctie)

Opzetten en uitvoeren van het curriculum voor beginnende professionals.
Excellentietraject
Medeontwikkeling van het excellentietraject en docent voor de vakken Politiek en Kinderrechten.

2010- heden *Master leren en Innoveren Onderzoekende Ontwerper*

Mede verantwoordelijk voor de aanvraag en de externe accreditatie van 2014. De Master is beoordeeld met twee Goed en een Voldoende.
Mede ontwikkeling en verbetering van het curriculum, bewaking van de kwaliteit en eindtermen.
Docent van de onderzoekslijn en projectlijn.
Projectbegeleider van masterstudenten.
Vertegenwoordiger bij het Landelijke Netwerk van Master Leren en Innoveren.
Academische pabo
Ontwikkeling van de onderzoekslijn. Docent Onderzoek.
Eerste bachelorscriptie begeleider van alle academische pabostudenten.

2006-heden *Kenniskringlid Lectoraat Vernieuwingsonderwijs (Dalton, Montessori en Jenaplan).*

Internationaal symposium georganiseerd (inhoudelijk, logistiek, financieel etc.) In het kader van promotieonderzoek: Amsterdam, april 2012 met S. R. Beck, School of Psychology, University of Birmingham; D. Hutto, School of Humanities, University of Hertforshire; K. Iordanou, Department of Psychology, Neapolis University Pafos; N. Mercer, Faculty of Education, University of Cambridge; J. E. Opfer, Department of Psychology, The Ohio State University; E. Stern, ETH Zürich, Institut für Verhaltenswissenschaften; E.J. Robinson, Department of Psychology, Warwick University; A. Tolmie, Department of Psychology and Human Development, Institute of Education University of London.

Diverse artikelen in het Nederlands en Engels voor vaktijdschriften en wetenschappelijke tijdschriften en voor websites (zie publicaties en lezingen).

Diverse lezingen op internationale wetenschappelijke congressen, vaak op uitnodiging, soms na selectie van paper proposals, bijvoorbeeld:

- Medeorganisator (samen met dr. P.A. van der Ploeg van de Rijksuniversiteit Groningen) van de International Conference on Citizenship Education (RuG/TechYourFuture/ LLAKES/AMCIS in Juni 2017: https://citizenship-education.com).
- Op de LLAKES / AMCIS in Mei 2015 in London aan de Institute of Education van de UCL.
- Earli 13 Moral and democratic Education in Verona 2014.
- Regelmatig op de Onderwijs Research Dagen (2013, 2014, 2015 en discussion forum geaccepteerd voor 2016 en 2017 paper).
- Gedurende enkele jaren verscheidene gastcolleges over burgerschapsvorming aan de Rijksuniversiteit Groningen.
- Uitnodiging van Micha de Winter in mei 2015 om over de burgerschapsvorming en mijn kritieken op het participatiebeleid te bespreken en uit te wisselen.
- Frequente bijdragen aan "Arbeitstreffens" in Solothurn om Zwitserse collega's te adviseren over voorbereiding en uitvoering van onderzoek.

2013-2016 *JURE van de EARLI SIG 17* – Qualitative and Quantitative methodology in Learning and Instruction.

2006-2007 *Universiteit Utrecht – Pedagogiek*
Studentassistent onderzoek en onderwijs

- Leiding van de redactie en verdere ontwikkeling van de website www.pedagogiek.net.
- Werkgroepbegeleiding voor het vak Theoretische Pedagogiek.

- Ontwikkelen en verzorgen van module vaardigheidstraining voor premaster studenten: zoeken en analyseren van wetenschappelijke artikelen, bronnen beoordelen, met elkaar in verband brengen en conclusies trekken. Schrijven van een betoog.

2002-2004 *Weleda Nederland NV (Zoetermeer) – Marketing Product-Marktmanager Oncologie*

Ontwikkeling van doelen en strategieën voor de Nederlandse markt. Implementatie van verschillende marketing- en communicatie-activiteiten.

1999-2001 *Weleda AG (Arlesheim – Zwitserland) – Marketing Product en Project Manager*

Product Manager Geneesmiddelen en Dietetica voor de Zwitserse markt.
Internationaal Project Manager Geneesmiddelen en Dietetica. Medeontwikkeling en implementatie van de strategie op groepsniveau. Introductie van nieuwe producten.

1995-1999 *F. Hoffmann-La-Roche Ltd (Bazel – Zwitserland) Pharma Division – Afdeling Logistiek - Management Support Group Kwaliteitsmanager*

Implementatie van een proces gestuurd kwaliteitsmanagement Systeem (ISO 9001 certificatie in 1997).

PUBLICATIES EN LEZINGEN

Proefschrift

Guerin, L.J.F. (2017). Group problem solving as citizenship education: Mainstream idea of participation revisited.

Publicaties

Guérin, L.J.F. (2017). Group problem solving as a different participatory approach to Citizenship Education. Journal od Social Sciences

Education 2, 8-18.
Guérin, L.J.F. & Sins P.H.M. (submitted). Coping with complexity: to what extent can pupils engage effectively in connected learning and vision orientation?
Van Dijk, A. & Guérin L.J.F (2017). Discussiëren kun je leren. Meertaal, Jaargang 4 (3).
Van der Ploeg, P.A. & L.J.F. Guérin (2016). Questioning participation and solidarity as goals of citizenship education. Critical Review: A Journal of Politics & Society, vol. 28 (2), in press.
Guérin, L.J.F (2014). Didactische principes voor de implementatie van groespgewijsprobleem oplossen als burgerschapsopvatting. Paper gepresenteerd op de conferentie De sociale en maatschappelijke functie van de school. Amsterdam: Universiteit van Amsterdam.
Guérin, L.J.F (2014). Conceptual problems of values and attitudes in citizenship education. Paper presentation EARLI SIG 13. University of Verona.
Guérin, L.J.F. (geaccepteerd). Aanleren duurzaamheid is nog geen leren voor duurzame ontwikkeling. Pedagogiek.
Guérin, L.J.F (2014). IJsbeer in nood: over het faciliteren en ontwikkelen van het kritisch denkvermogen. Website HetKind.
Guérin, L.J.F (2014). Burgerschapsvorming, samenwerken en samen leren denken: wat betekent dat voor de leraar en het onderwijs? Website HetKind
Guérin, L.J. F (2014). Als pedagogen moeten we optimist blijven, geen utopisten worden. Website HetKind
Guérin, L.J.F., Van der Ploeg, P.A., & Sins, P.H.M. (2013). Citizenship Education: The feasibility of a participative approach. Educational Research, 55(4), 427-440,
Guérin, L.J.F. (2013). Chocola en Duurzame Ontwikkeling. Didactief-online.
Guérin, L.J.F. (2013). Chocola is geen chocola. Ecent. https://elbd.sites.uu.nl/2012/08/31/chocola-is-geen-chocola-lessen-over-duurzame-ontwikkeling/
Guérin, L.J.F. (2013). Niet alle lessen over duurzame ontwikkeling behandelen duurzame ontwikkeling. Ecent. https://elbd.sites.uu.nl/2012/08/31/niet-alle-lessen-over-duurzame-ontwikkeling-behandelen-duurzame-ontwikkeling/
Guérin, L.J.F. (2013). Duurzame ontwikkeling in het basisonderwijs. Ecent. https://elbd.sites.uu.nl/2012/08/31/duurzame-ontwikkeling-in-het-basisonderwijs/
Guérin, L.J.F (2013). Groespgewijsprobleem oplossen als bugerschapsopvatting. Paper gepresenteerd op de conferentie De sociale en maatschappelijke functie van de school. Amsterdam: Universiteit van Amsterdam.

Guérin, L.J.F. (2013). Denken over maatschappelijke kwesties: kunnen basisschoolleerlingen het leren? Paper gepresenteerd op de OnderwijsResearch Dagen, Brussel, België.

Guérin, L.J.F. (2012). Burgerschapsvorming: wat vraagt het van het onderwijs? Paper gepresenteerd op de conferentie van de Vereniging Lerarenopleiders Vlaanderen (VELOV) 2012. Antwerpen: Hogeschool Antwerpen.

Guérin, L.J.F. (2012). En wat als we de wereld niet kunnen verbeteren? Paper gepresenteerd op de conferentie Onderzoek voor een vitale regio, Deventer.

Guérin, L.J.F. (2011). Does collaborative learning prepare for citizenship? Paper presented at EAPRIL, Nijmegen, The Netherlands.

Guérin, L.J.F. (2011). Leer kinderen meedenken en samen denken. Tijdschrift VBS, 5.

Guérin, L.J.F., Oldersma, F. (2010). Daltonschool De Starter. Zelfredzaam, vreedzaam en duurzaam. In E. Leussink, A. de Hamer, L.J.F. Guérin & J. Meijer (red), Een aarde is niet genoeg voor de hele wereld. Duurzame Ontwikkeling voor vernieuwingsscholen. LvDO.

Lezingen

Guérin, L.J.F. (2014). Groepsgewijs problemen oplossen. Presentatie inspiratiemiddag NDV, Utrecht.

Guérin, L.J.F. (2012). Democratie opvattingen en burgerschapsvorming opvattingen. Presentatie inspiratiemiddag NDV, Utrecht.

Guérin, L.J.F. (2012). Burgerschapsvorming: De drie-eenheid. Te veel in te weinig tijd. Presentatie lectorale rede Patrick Sins, Deventer.

Guérin, L.J.F (2011). Presentatie resultaten expert meeting. Studiedag van de Dalton Vereniging, Amersfoort, september 2011.

Guérin, L.J.F. (2011). Samen leren denken. Presentatie NDV bestuursvergadering, Nunspeet, februari 2011.

Guérin, L.J.F. (2011). Samen leren denken en burgerschapsvorming: wat vraag het van het onderwijs? Presentatie inspiratiemiddag NDV, Deventer.

Guérin, L.J.F. (2008) . Bildung für eine Nachhaltige Entwicklung aus internationaler Perspektive. Universiteit Bern.

Workshop

Guérin, L.J.F (2011). Workshop Netwerk denken bevorderen. Marnix Academie Conferentie voor studenten over Duurzame Ontwikkeling, Utrecht.

OPLEIDINGEN EN KWALIFICATIES

2016 Basis Kwalificatie Examinator (BKE)
2013 PhD cursus "Writing a Scientific Article" (certificaat)
2013 PhD cursus "Teaching and Higher Education" (certificaat)
2012 Cursus Universiteit Utrecht "Kwalitatieve Analyse: Theorie en Praktijk" (certificaat)

2004-2008	*Universiteit Utrecht* Pedagogiek
1997-1998	*Qualicon AG (Kirchberg – Zwitserland)* EFQM Auditor. Gecertificeerd auditor voor Kwaliteitsmanagement Systeem (ISO 9000).
1996-1997	*The Center for Professional Advancement (Amsterdam – Holland)* ISO 9000. Its relationship to cGMP in the Drug and Device industries. GMP Documentation System.
1991-1995	*Business School Rennes (France)* (Ecole Supérieure de Commerce de Rennes) Specialisatie : "Total Quality Management" at the Business School of the University of Glasgow (1994-1995). Doctoraalscriptie: "ISO 9001, the first step towards Total Quality Management" Doctoraal Bedrijfskunde (drs-titel toegekend IB-Groep zomer 2007).
1990-1991	*Voorbereidingsklas (HEC Montpellier – France)* Voorbereidingsklas voor de ingangsconcours van de Grandes Ecoles.
1989-1990	*Franse school (Frankfurt am Main – Duitsland)* Baccalauréat C, zwaartepunt wis- en natuurkunde.

TAAL

Frans is vloeiend (moedertaal)
Nederlands is vloeiend
Engels is vloeiend (TOEFL gehaald om te kunnen studeren bij de Universiteit van Glasgow)
Duits is goed (aantal jaren in Duitsland gewoond en in Zwitserland gewerkt)