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Citizenship orientations and knowledge in primary and secondary education

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Abstract Despite widespread attention to citizenship in educational practice, knowledge of the citizenship of students is still fragmented. We therefore present a comprehensive framework to integrate empirical data and theoretical insights into the citizenship of young people today. To develop and validate the framework, we conducted exploratory and confirmative factor analyses on measures of citizenship attitudes, skills, reflection and knowledge for a sample of 7,768 students in grades 5–9 from 38 Dutch primary and secondary schools. The results were cross-validated using a different sample of 15,940 students in primary and secondary education. We were able to distinguish four citizenship orientations among students (*societal interest*, *prosocial ability*, *reflective thinking* and *assertiveness*) and two domains of citizenship knowledge (*societal knowledge* and *interpersonal knowledge*). This framework can help

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with the large-scale, empirical evaluation of the effects of citizenship education and also guide schools in the formulation of educational goals to support the development of citizenship competences among students.

Keywords Citizenship education · Primary education · Secondary education · Empirical framework · Citizenship orientations · Factor analysis

1 Introduction

Citizenship education was introduced in the formal school curricula of most modern societies at the turn of the twenty-first century (Euridyce 2005, 2012). Since then, the citizenship of students has been examined to enable profound understanding of the effects of schooling on citizenship (e.g. Cleaver et al. 2005; Geboers et al. 2012; Geijssel et al. 2012; Ireland et al. 2006; Schulz et al. 2010; Torney-Purta 2002). In these empirical studies, citizenship is usually analyzed in terms of the specific knowledge, skills, attitudes and reflection which people need to adequately and responsibly participate in a democratic society. These components can be seen to form part of a broader concept of ‘competences’ (Rychen and Salganik 2003; Ten Dam and Volman 2007; cf. Eraut 1994). And while this line of research definitely provides insight into the citizenship competences of students, it is nevertheless difficult to specifically relate the findings to the pedagogical goals strived for in citizenship education. This is because the pedagogical goals of citizenship education are generally formulated quite broadly—for example as ‘develop political literacy’ or ‘develop social responsibility’. They are thus formulated in terms of *general* combinations of attitudes and behaviours needed for individuals to become competent, active and effective citizens, with the specific citizenship knowledge, skills, attitudes and values combined and integrated (Hoskins et al. 2011).

The mismatch between the broadly formulated pedagogical goals of citizenship education and the specific citizenship competences elucidated by empirical research obviously hinders our ability to build a strong empirical foundation for citizenship research, measurement and schooling. Stated differently, the observed mismatch obstructs efforts to give meaning to student measurements in light of educational goals and thus evaluate and adjust education on the basis of empirical insight. Moreover, the question of whether citizenship education—as currently taking place in schools—is achieving its goals remains largely unanswered, moreover.

The aim of the present study was to develop and evaluate a framework for understanding current theoretical insights and empirical data on the citizenship of students. With the development of such a framework, not only will the empirical evaluation of citizenship education be facilitated but also schools can be guided in the formulation of their pedagogical goals and thereby the development of citizenship competences among students.

1.1 Citizenship competences, goals of citizenship education and the Dutch educational context

In recent years, a body of knowledge about the citizenship competences of students has emerged. The focus of the research leading to this body of knowledge has been mainly on the relationships between the citizenship competences and background characteristics of young people. Citizenship knowledge has been shown, for example, to *generally increase* over the years although students in adolescence show *less positive* attitudes towards citizenship than their younger peers (Amadeo et al. 2002; Cleaver et al. 2005; Geijssel et al. 2012; Ireland et al. 2006; Kerr et al. 2007; Torney-Purta and Amadeo 2003). Girls outperform boys with regard to citizenship knowledge (Schulz et al. 2010). However, in citizenship attitudes and skills these gender differences are much smaller and appear to be more topic-specific (Geijssel et al. 2012). Students with a higher social economic status (Lopes et al. 2009; Schulz et al. 2010; Torney-Purta 2004; Torney-Purta and Barber 2004) and from a majority background (Geijssel et al. 2012; Schulz et al. 2010; Torney-Purta et al. 2006) also show relatively greater citizenship knowledge than other students. And while majority students intend to vote more often than minority students (e.g. Lopez 2003), minority students report being more interested in politics (Cleaver et al. 2005; Schulz et al. 2010) and show more positive attitudes towards citizenship, greater citizenship skills and more reflection on citizenship than majority students (Geijssel et al. 2012).

In addition to empirical studies of the citizenship competences of students, there is a line of literature in which the vision and goals of citizenship education stand central. In a Dutch educational context, for example, schools are given substantial freedom for the design and implementation of citizenship education. This means that the goals outlined for citizenship education can differ from school to school depending on the perspective taken on citizenship. The legal task of schools in the Netherlands only requires the promotion of ‘active citizenship’ and social integration in order to develop a willingness and ability on the part of students to be part of the community and actively contribute to the community (Council of Education 2012; Ministry of Education, Culture and Science 2005).

When a *communitarian* perspective on citizenship is adopted (Etzioni 1993, 1996; Taylor 1989), shared moral goals or ‘bonding values’ are typically viewed as the cement of the community (Etzioni 1996, pp. 90–91) and shared thinking or ‘the common’ is emphasized as opposed to autonomous thinking (Veugelers 2011).

‘The common’ does not concern forced, external values; it concerns the inner acceptance of values transferred by family, neighbours and teachers (Etzioni 1993). The citizenship competences which students are expected to acquire from a communitarian perspective are thus primarily about social adjustment and prosocial behaviour.

In contrast to the communitarian perspective on citizenship, both the *liberal* and *critical-emancipatory* perspectives emphasize autonomy. The liberal perspective places the rights of the individual at the core of the concept of citizenship and calls for strict neutrality with respect to values and citizenship (cf. Rawls 1993). The critical-emancipatory perspective links autonomy to social concern and social justice (Giroux 1989).

In addition to the marked variation in citizenship education depending on the citizenship perspectives adopted by the schools (Leenders et al. 2008), previous research has similarly shown marked differences in citizenship education depending on the level of school being taught (Leenders et al. 2008; Ten Dam and Volman 2003). In the Dutch educational system, students are selected at the age of 12 for different tracks of secondary education. There are four lower levels of secondary education (i.e. pre-vocational tracks) and three higher levels (i.e. general secondary tracks). In the lower levels, the elementary rules of social interaction and adaptation have been found to be emphasized; in the higher levels, critical citizenship and societal knowledge have been found to be emphasized (Ten Dam and Volman 2003; Leenders et al. 2008).

1.2 Citizenship orientations and the purpose of the present study

In the present research, it is assumed that citizenship *orientations* might form a better framework for aligning the perspectives and goals of schools with the actual citizenship of students than knowledge, skills, attitudes and behaviour (i.e. competences) separately. Citizenship orientations are combinations of knowledge, attitudes and skills and thus the perspectives on citizenship underlying these (Almond and Verba 1989; Janmaat 2007; Qinghua 2002; Werfhorst and de Graaf 2004). One such orientation, for example, may entail *attitudes* reflecting a willingness to participate in a community, the *skills* needed for proper participation in that community and *critical reflection* on issues of relevance for participation in the community (e.g. social equality/inequality or conflicting ideas).

In the present study, we identified a number of citizenship orientations on the basis of the self-assessed citizenship attitudes, skills and reflection of students and then related these orientations to the citizenship knowledge of the students. In doing this, we contributed to the growing body of empirical insight into the citizenship competences of students during daily life and thus to the body of knowledge for schools and teachers to build their educational practices upon. The following three research questions were asked in particular.

1. What are the citizenship orientations of students in primary and secondary education?
2. How do the citizenship orientations and citizenship knowledge of students in primary and secondary education relate?
3. Can certain student characteristics explain the differences observed in the citizenship orientations and knowledge of students in primary and secondary education?

2 Methods

2.1 Participants

Data were collected in 38 schools: 14 schools for primary education, 13 schools for pre-vocational secondary education and 11 schools for general secondary education. These schools were all part of the Dutch Citizenship Alliance helping institutes for curriculum development and testing, the Dutch Inspectorate of Education, universi-

Table 1 Descriptive statistics for 17 citizenship subscales: reliability coefficients (Cronbach's alpha) and means (standard deviations)

Subscale	α	Mean (SD)
<i>Attitudes</i>		
Acting democratically factor 1 (willingness to hear everyone's voice) (3 items)	.71	3.38 (0.51)
Acting democratically factor 2 (willingness to contribute critically) (3 items)	.66	2.70 (0.67)
Acting in a socially responsible manner (6 items)	.69	3.04 (0.51)
Dealing with conflicts (6 items)	.80	2.86 (0.58)
Dealing with differences (6 items)	.87	2.84 (0.68)
<i>Skills</i>		
Acting democratically factor 1 (standing up for one's own opinion) (3 items)	.75	3.19 (0.58)
Acting democratically factor 2 (listening to the opinions of others) (3 items)	.72	3.06 (0.56)
Acting in a socially responsible manner and dealing with conflicts (5 items)	.78	3.02 (0.52)
Dealing with differences (4 items)	.71	3.10 (0.50)
<i>Reflection</i>		
Acting democratically (6 items)	.82	2.28 (0.66)
Acting in a socially responsible manner (6 items)	.86	2.10 (0.70)
Dealing with conflicts (8 items)	.91	2.51 (0.70)
Dealing with differences (8 items)	.87	2.06 (0.70)
<i>Knowledge</i>		
Acting democratically (8 items)	.65	0.79 (0.22)
Acting in a socially responsible manner (6 items)	.56	0.77 (0.23)
Dealing with conflicts (7 items)	.63	0.67 (0.26)
Dealing with differences (6 items)	.64	0.77 (0.25)

ties and both primary and secondary schools to cooperate on the development and evaluation of citizenship education in the Netherlands. The schools varied with regard to denomination and also location in the country. Data were collected from 7,768 students during the 2007/2008 school year.

2.2 Citizenship competences

Students between 11 and 16 years of age completed the Citizenship Competences Questionnaire (CCQ) as developed by [Ten Dam et al. \(2011\)](#). In this questionnaire, citizenship is situated in the daily social practices of young people and operationalized in terms of the competences which they need to adequately fulfil four categories of social tasks (i.e. *acting democratically*, *acting in a socially responsible manner*, *dealing with conflicts* and *dealing with differences*). The questionnaire is composed of 94 items divided across 17 subscales measuring what have been shown to be the core components of citizenship competence (i.e. *knowledge*, *attitudes*, *skills* and *reflection*) for the aforementioned four categories of social tasks. In [Table 1](#), an overview of the subscales, descriptive statistics and reliability coefficients is presented.

The *knowledge* component is measured using 27 multiple choice items with three response options and directions to indicate *which option best answers the question*.

For example: *All children have the right to: (a) pocket money (b) choose who they want to live with, (c) education.* Option (c) is the correct answer here and assigned a score of 1 when provided; the other options are assigned a score of 0. The 27 items encompass the four categories of social tasks and thus four knowledge scales. For each subscale, the students can thus be assigned a score, which is the proportion of the items answered correctly.

The *attitudes, skills and reflection* components are measured using four-point Likert type scales with higher scores indicating a higher frequency or higher degree of applicability. The general question *How well does this statement apply to you?* was asked for the attitude items. A sample response statement was then: *I like to know something about different religions.* The skills items required the students to estimate their own skill for the four categories of social tasks. The skills items were introduced with the following question: *How good are you at—for example—finding a solution for a disagreement which everyone is satisfied with?* The reflection items were introduced with *How often do you think about—for instance—whether students are listened to at your school?* and, just as the other questionnaire items, they addressed the four categories of social tasks. A total of 67 questionnaire items represented 5 attitude scales, 4 skill scales and 4 reflection scales.

2.3 Student backgrounds, participation in school/society and perceptions of school climate

Information on the background of the students was obtained by asking 9 questions following the administration of the CCQ. Students were asked, for example, what grade they were in, what their age was and what the highest educational level of their parents was. In addition, the students' participation in school and society was assessed along with their perceptions of the school climate (cf. Schulz et al. 2008).

The students were asked if they participated (yes/no) in societal activities such as scouting, multicultural organizations, human rights organizations, environmental organizations, the youth section of a political party, religious communities or volunteer work. They were similarly asked if they participated (yes/no) in school activities such as the student council, the school paper or the organization of school celebrations. The engagement of the students with the news via newspapers and TV was also assessed.

Finally, the students were asked about their perceptions of the school climate in order to gain insight into the atmosphere at the school and the quality of teacher–student and student–student interactions at the school. We considered a secure school environment and positive interpersonal interactions to be relevant features for the development of citizenship. A number of questions were asked to gain this information (e.g. *Whether the teachers respect the students? Whether the students bully each other? Whether the students are willing to help each other, even if they are not friends?*). An overview of these variables is presented in Table 2.

2.4 Analyses

In order to construct and test our comprehensive framework for understanding the citizenship orientations and knowledge of students in primary and secondary education, the following procedure was followed.

Table 2 Overview of student characteristics in percentages, means and standard deviations of students' citizenship participation and their perspectives on school climate (N = 7,768; N of schools = 38)

<i>Background characteristics</i>					
Gender	51.8 %	Boy	48.2 %	Girl	
SES	5.3 %	Low	38.7 %	Middle	High
Ethnic origin	79.3 %	Majority	20.7 %	Minority	
Language spoken at home	87.4 %	Dutch	2.4 %	Dutch dialect	Not Dutch
Age	7.5 %	10–11 years	49.0 %	12–13 years	14–15 years
Grade	5.0 %	Grade 5	4.6 %	Grade 6	Grade 7
School level	9.6 %	Primary	47.8 %	Pre-vocational	General secondary education
					5.7 %
					42.1 %
					42.6 %
					Mean
					SD
<i>Students' citizenship participation</i>					
Societal participation (8 activities, mean activity)					0.11
School participation (5 activities, mean activity)					.13
News engagement (4 items, judged using 4-point Likert scale)				.78	.73
<i>Students' perspective on school climate</i>					
Student–teacher relationships (6 items, 4-point Likert scale)				.94	.65
Student relationships (5 items, 4-point Likert scale)				.92	.80
Social behaviour between students (5 items, 4-point Likert scale)				.92	.63

First, exploratory factor analyses with varimax rotation were conducted on the mean scores for the 13 CCQ subscales representing the students' citizenship attitudes, skills and reflection for the four categories of social tasks. The four knowledge subscales were analyzed separately as knowledge was considered conceptually different than attitudes, skills and reflection (Ten Dam et al. 2011). Three factors were extracted with an eigenvalue larger than 1 to explain 64.45 % of the variance in the 13 CCQ subscale means. We subsequently excluded the subscale *skill acting democratically 1 (stand up for one's own opinion)* and included this as a fourth factor because it was found to constitute a separate factor in all of the models. Our tentative model thus contained four factors reflecting the citizenship orientations of students in primary and secondary education.

We next conducted confirmatory factor analyses on the model with four factors representing the citizenship orientations of students on a random half (N = 3,825) of the total sample. The fit of a model is considered acceptable with a root mean square error of approximation (RMSEA) $\leq .08$, standardized root mean square residual (SRMR) $\leq .06$ and comparative fit index (CFI) $\geq .95$ (Hu and Bentler 1999). The general fit of the initial model was quite satisfactory $\chi^2(60) = 2,896.361$, $p = .001$; RMSEA = .078, SRMR = .047, CFI = .94, BIC = 143,106.361). Nevertheless, three of the subscales did not meet our standard of exclusively loading $> .30$ on only one factor. We therefore optimized the four-factor model by excluding the following three subscales: *reflection dealing with conflicts*, *attitude acting democratically factor 1 (willingness to hear everyone's voice)* and *attitude acting socially responsible*. The removal of these scales significantly improved the fit of the four-factor model [$\chi^2(30) = 960.702$, $p = .001$; RMSEA = .063, SRMR = .032, CFI = .969, BIC = 114,667.886; $\Delta\chi^2_{\text{SB}}(30) = 1,935.659$, $p = .001$].

Third, the stability of the final four-factor model which included the mean scores for 10 subscales from the CCQ was checked on a random half of the total sample of students. The model again produced a good fit [$\chi^2(30) = 488.143$, $p = .001$; RMSEA = .063, SRMR = .032, CFI = .970, BIC = 56,357.603].

Fourth, the initial results were validated in separate, confirmatory factor analyses conducted on two random halves drawn from a representative COOL sample of 15,940 sixth and ninth grade students coming from 80 primary and secondary schools in the Netherlands. COOL^{5–18} stands for 'Dutch National Cohort Study Educational Careers Students 5–18 years' [*Cohort Onderzoek OnderwijsLoopbanen*], in which students from 5 to 18 years are followed during their educational career. The fit of the model was good for both datasets (COOL dataset 1: $\chi^2(30) = 925.897$, $p = .001$; RMSEA = .061, SRMR = .029, CFI = .972, BIC = 107,820.601; COOL dataset 2: $\chi^2(30) = 1148.957$, $p = .001$; RMSEA = .069, SRMR = .033, CFI = .965, BIC = 107,278.144).

In a fifth step in our analyses, exploratory factor analyses with varimax rotation were conducted separately on the mean scores for the four CCQ knowledge subscales. All of the factor results met our standard of exclusively loading $> .30$ on only one factor. Two factors were extracted with an eigenvalue larger than 1 to explain 77.38 % of the variance in the mean scores.

In the next step, the fit of the two-factor model of citizenship knowledge was examined in a confirmatory factor analysis and found to be good [$\chi^2(1) = 27.788$, $p =$

.001; RMSEA = .059, SRMR = .009, CFI = .997, BIC = -8,453.069]. And seventh, when conducted on a random half ($N = 3,825$) of the student sample, the results were found to be stable [$\chi^2(1) = 15.067$, $p = .001$; RMSEA = .061, SRMR = .008, CFI = .996, BIC = -3,973.127].

In the eighth step, the results for citizenship knowledge were validated in a confirmatory factor analysis conducted on two random halves of the large COOL dataset (15,940 sixth and ninth grade students). The two-factor model of citizenship knowledge was acceptable for both datasets (COOL dataset 1: $\chi^2(1) = 35.213$, $p = .001$; RMSEA = .066, SRMR = .009, CFI = .996, BIC = -11,156.534; COOL dataset 2: $\chi^2(1) = 50.631$, $p = .001$; RMSEA = .079, SRMR = .011, CFI = .994, BIC = -11,180.303).

Finally, the scores for six scales representing the four citizenship orientations and two domains of citizenship knowledge were calculated on the basis of the means of the subscales from the CCQ. Multivariate analyses were then performed on the four citizenship orientations and two domains of citizenship knowledge as the dependent variables and student background, participation in school/society, engagement with the news and perceptions of school climate as explanatory variables.

3 Results

3.1 Citizenship orientations of students

The findings for the final four-factor model for the citizenship orientations of students are depicted in Fig. 1, which includes the mean scores for the relevant 10 CCQ subscales measuring citizenship attitudes, skills and reflection.

The four factors can be seen to represent the following citizenship orientations: *societal interest*, *prosocial ability*, *reflective thinking* and *assertiveness*.

The ‘societal interest’ orientation encompasses attitudes reflecting a willingness to be a part of the community and a willingness to take responsibility for other people within the community, an interest in social issues, an interest in other people, an interest in maintaining relationships and respect for others with their differences. The ‘prosocial ability’ orientation encompasses the skills needed for effective communication, emphasizing with others, adaptation to the practices and habits of others in society, and familiarity with social rules (e.g. politeness). The ‘reflective thinking’ orientation encompasses critical reflection on social issues and the structure of society—including discrimination—and trying to understand social relations. The ‘assertiveness’ orientation encompasses the skills needed to clearly formulate your own ideas and stand up for them.

As Fig. 1 shows, the correlations between the four citizenship orientations themselves were moderate to relatively high for the students.

3.2 Citizenship orientations and citizenship knowledge

The findings for the final two-factor model of citizenship knowledge are depicted in Fig. 2 along with the mean scores on the four CCQ knowledge subscales constituting the two knowledge factors.

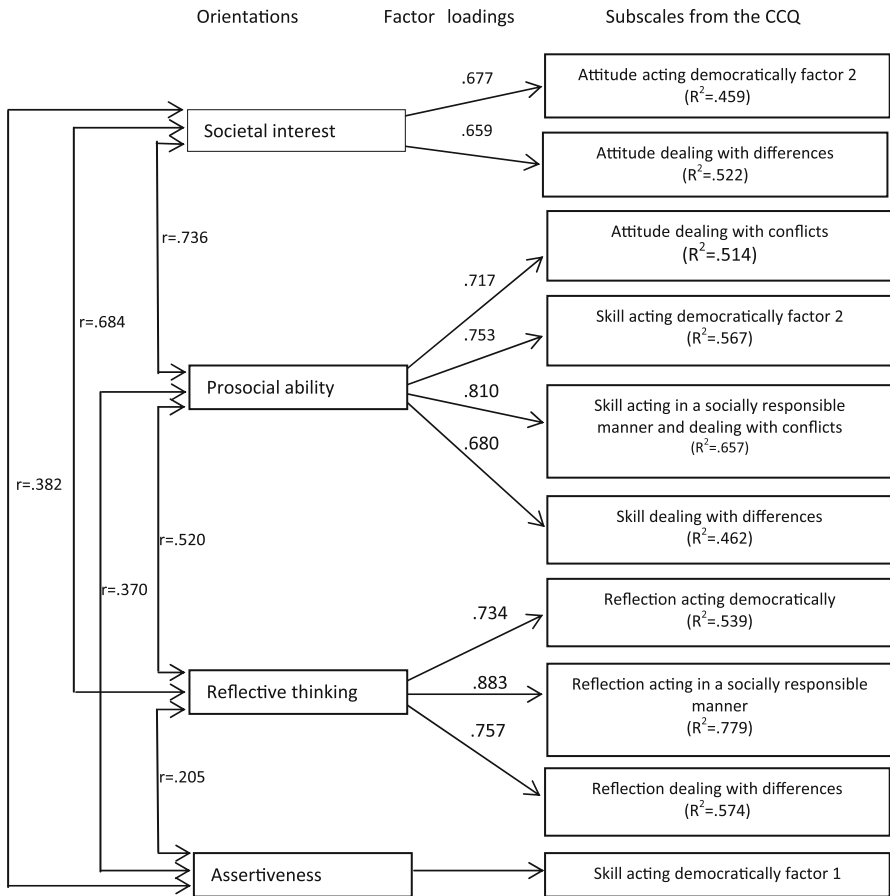


Fig. 1 Final four-factor model for citizenship orientations of students with factor loadings, explained variances per subscale (R²) and the correlations between the orientations

Two domains of citizenship knowledge can be seen to be represented: societal knowledge and interpersonal knowledge. Societal knowledge concerns knowledge of democratic principles, the organization of society and the norms of society. Interpersonal knowledge concerns knowledge of prevailing social values, behavioural rules and everyday manners. As can be seen from Fig. 2, the correlation between the two factors representing the two domains of citizenship knowledge were high for the students.

The descriptive statistics and reliability of the measurement of the citizenship orientations and citizenship knowledge of the students are shown in Table 3. The students produced relatively high scores on prosocial ability and assertiveness but rather low scores on reflective thinking. Furthermore, the students between 11 and 16 years of age generally knew more about democracy and societal structures than about social rules and social contact.

In Table 4, the correlations between the four citizenship orientations of the students and their citizenship knowledge are presented. The correlations were significant

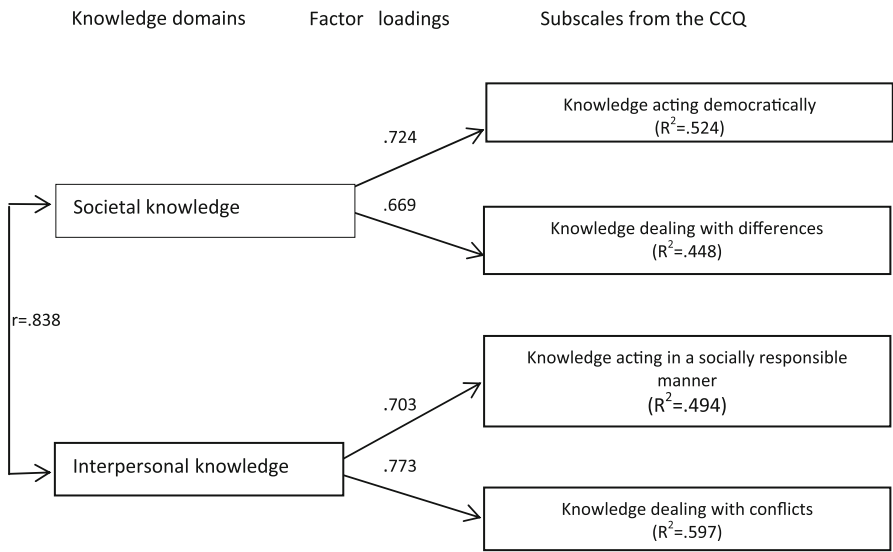


Fig. 2 Final two-factor model for citizenship knowledge with factor loadings, explained variances per subscale (R^2) and the correlation between the two domains (r)

Table 3 Overview of means, standard deviations and reliability coefficients (Cronbach’s α alphas) for measurement of citizenship orientations and citizenship knowledge ($N = 7,644$)

	Mean	(SD)	α
<i>Citizenship orientations</i>			
Societal interest (2 competence subscales)	2.77	(.58)	.85
Prosocial ability (5 competence subscales)	3.01	(.44)	.88
Reflective thinking (3 competence subscales)	2.14	(.59)	.91
Assertiveness (1 competence subscale)	3.19	(.58)	.75
<i>Citizenship knowledge</i>			
Societal knowledge (2 subscales)	.78	(.20)	.88
Interpersonal knowledge (2 subscales)	.72	(.22)	.85

To calculate the Cronbach’s alphas, a correction of test extension up to 6 items was applied

but generally quite low. This shows the citizenship orientations of students to only relate marginally to their citizenship knowledge (i.e. knowledge in the societal and interpersonal domains).

3.3 Background characteristics of students in relation to their citizenship orientations

The MANOVA results presented in Table 5 show the citizenship orientations of the students to differ significantly depending on the background characteristics of the students.

The citizenship orientations of the students differed depending on gender [$\Lambda = .945, F(4, 5,095) = 74.01, p = .001, \eta^2 = .055$]. Compared to boys, girls showed

Table 4 Correlations between four citizenship orientations and two domains of citizenship knowledge

Citizenship orientations	Citizenship knowledge	
	Societal knowledge	Interpersonal knowledge
Societal interest	.124	.245
Prosocial ability	.101	.283
Reflective thinking	-.105	.069
Assertiveness	.090	.049

greater societal interest [$F(1) = 104.85$, $p = .001$, $\eta^2 = .020$], prosocial ability [$F(1) = 233.65$, $p = .001$, $\eta^2 = .044$] and reflective thinking [$F(1) = 86.16$, $p = .001$, $\eta^2 = .017$]. The citizenship orientations of the students also appeared to differ depending on the social economic statuses of the families of the students [$\Lambda = .988$, $F(8, 10,190) = 7.86$, $p = .001$, $\eta^2 = .006$]. Students coming from the lowest social economic backgrounds reported the most societal interest [$F(2) = 20.33$, $p = .001$, $\eta^2 = .008$] and reflective thinking [$F(2) = 12.06$, $p = .001$, $\eta^2 = .005$]. Students coming from the highest economic background showed the highest scores for prosocial ability [$F(2) = 16.34$, $p = .001$, $\eta^2 = .006$] and assertiveness [$F(2) = 10.02$, $p = .001$, $\eta^2 = .004$]. The ethnic origins of the students also played a significant role in their citizenship orientations [$\Lambda = .974$, $F(4, 5,095) = 34.21$, $p = .001$, $\eta^2 = .026$]. Minority students showed higher scores than majority students for all four citizenship orientations (societal interest: $F(1) = 130.55$, $p = .001$, $\eta^2 = .025$; prosocial ability: $F(1) = 28.96$, $p = .001$, $\eta^2 = .006$; reflective thinking: $F(1) = 47.88$, $p = .001$, $\eta^2 = .009$; assertiveness: $F(1) = 21.64$, $p = .001$, $\eta^2 = .004$).

The language spoken in the home related significantly to only the reflective thinking of the students (i.e. a 'reflective thinking' orientation). Those who spoke Dutch in the home were less reflective than those who spoke a language other than Dutch in the home [$\Lambda = .996$, $F(8, 10,190) = 2.38$, $p = .015$, $\eta^2 = .002$; $F(2) = 4.95$, $p = .007$, $\eta^2 = .002$]. Grade level significantly relates to some of the differences in the citizenship orientations of the students [$\Lambda = .995$, $F(8, 10,190) = 3.46$, $p = .001$, $\eta^2 = .003$]. The students in fifth grade showed more of an orientation towards societal interest [$F(2) = 5.81$, $p = .003$, $\eta^2 = .002$], prosocial ability [$F(2) = 7.12$, $p = .001$, $\eta^2 = .003$] and reflective thinking [$F(2) = 7.49$, $p = .001$, $\eta^2 = .003$] than the students in the higher grade levels. Finally, school level appears to significantly relate to differences in the citizenship orientations of the students [$\Lambda = .986$, $F(4, 5,095) = 18.64$, $p = .001$, $\eta^2 = .014$]. Students in pre-vocational education showed less societal interest [$F(1) = 49.74$, $p = .001$, $\eta^2 = .010$] and assertiveness [$F(1) = 16.51$, $p = .001$, $\eta^2 = .003$] than students in primary education and general secondary education. The MANOVAs showed that student age is not related to the citizenship orientations of the students.

Table 5 Overview of significant differences in citizenship orientations of students according to background characteristics together with means (and standard deviations)

Student characteristics	Citizenship orientations			
	Societal interest	Prosocial ability	Reflective thinking	Assertiveness
<i>Gender</i>				
Boy	2.68 (.59)	2.92 (.44)	2.07 (.59)	n.s.
Girl	2.86 (.56)	3.11 (.41)	2.22 (.59)	
<i>SES</i>				
Low	2.87 (.68)	3.00 (.52)	2.31 (.67)	3.21 (.62)
Medium	2.72 (.58)	2.98 (.43)	2.10 (.57)	3.15 (.58)
High	2.82 (.57)	3.04 (.43)	2.16 (.58)	3.23 (.57)
<i>Ethnic origin</i>				
Majority	2.71 (.57)	2.99 (.43)	2.09 (.58)	3.16 (.58)
Minority	3.01 (.56)	3.09 (.46)	2.34 (.61)	3.29 (.57)
<i>Language spoken at home</i>				
Dutch language	n.s.	n.s.	2.11 (.58)	n.s.
Dutch dialect			2.09 (.67)	
Other			2.36 (.63)	
<i>Age</i>				
10–11 years	n.s.	n.s.	n.s.	n.s.
12–13 years				
14–15 years				
16 years and older				
<i>Grade</i>				
Grade 5	2.94 (.58)	3.16 (.47)	2.31 (.57)	n.s.
Grade 6	2.91 (.52)	3.06 (.48)	2.09 (.55)	
Grade 7	2.84 (.57)	3.05 (.43)	2.25 (.60)	
Grade 9	2.65 (.59)	2.94 (.42)	2.00 (.56)	
<i>School level</i>				
Primary education	2.93 (.55)	n.s.	n.s.	3.22 (.57)
Pre-vocational education	2.70 (.60)			3.16 (.59)
General secondary education	2.81 (.56)			3.21 (.56)

Results significant at 5% level; non-significant results indicated with n.s.

3.4 Background characteristics of students in relation to their citizenship knowledge

In Table 6, we present an overview of the differences in citizenship knowledge of the students according to their background characteristics, again based on MANOVA analyses.

Gender appears to relate significantly to the differences in their citizenship knowledge [$\Lambda = .945$, $F(2, 5,134) = 150.83$, $p = .001$, $\eta^2 = .055$]. Girls scored

Table 6 Overview of significant differences in citizenship knowledge of students according to background characteristics together with means (and standard deviations)

Student characteristics	Citizenship knowledge	
	Societal knowledge	Interpersonal knowledge
<i>Gender</i>		
Boy	.75 (.21)	.67 (.23)
Girl	.82 (.17)	.77 (.18)
<i>SES</i>		
Low	.65 (.24)	.62 (.24)
Medium	.79 (.19)	.72 (.21)
High	.82 (.19)	.74 (.21)
<i>Ethnic origin</i>		
Majority	n.s.	n.s.
Minority		
<i>Language spoken at home</i>		
Dutch	.80 (.19)	.73 (.21)
Dutch dialect	.75 (.23)	.67 (.24)
Other language	.69 (.22)	.63 (.22)
<i>Age</i>		
10–11 years	.72 (.19)	.74 (.20)
12–13 years	.76 (.19)	.74 (.20)
14–15 years	.83 (.20)	.71 (.22)
16 years and older	.76 (.22)	.64 (.23)
<i>Grade</i>		
Grade 5	.65 (.18)	.71 (.19)
Grade 6	.80 (.18)	.79 (.18)
Grade 7	.75 (.20)	.73 (.21)
Grade 9	.83 (.20)	.70 (.23)
<i>School level</i>		
Primary education	.72 (.19)	.75 (.19)
Pre-vocational education	.73 (.21)	.67 (.22)
General secondary education	.85 (.17)	.77 (.21)

Results significant at 5% level; non-significant results indicated with n.s.

higher than boys in both knowledge domains (societal knowledge: $F(1) = 138.23$, $p = .001$, $\eta^2 = .026$; interpersonal knowledge: $F(1) = 288.90$, $p = .001$, $\eta^2 = .053$). Social economic status relates significantly to the differences in the citizenship knowledge of the students as well [$\Lambda = .984$, $F(4, 10,268) = 20.65$, $p = .001$, $\eta^2 = .008$]. The higher the social economic background, the higher the scores on both societal knowledge [$F(2) = 41.14$, $p = .001$, $\eta^2 = .016$] and interpersonal knowledge [$F(2) = 11.47$, $p = .001$, $\eta^2 = .004$]. The language spoken at home appears to be slightly related to the differences observed in citizenship knowledge [$\Lambda = .989$, $F(4, 10,268) = 13.84$, $p = .001$, $\eta^2 = .005$]. Students who spoke Dutch at home showed more knowledge in both knowledge domains than students who spoke a Dutch

dialect or a language other than Dutch in the home (societal knowledge: $F(2) = 22.19$, $p = .001$, $\eta^2 = .009$; interpersonal knowledge: $F(2) = 19.65$, $p = .001$, $\eta^2 = .008$).

The age of the students explained a significant part of the differences in their citizenship knowledge but nevertheless differently depending on the knowledge domain [$\Lambda = .955$, $F(6, 10,268) = 4.62$, $p = .001$, $\eta^2 = .003$]. Students in the range of 14–15 years showed the highest scores on societal knowledge [$F(3) = 7.33$, $p = .001$, $\eta^2 = .004$] while students in the ranges of 10–11 and 12–13 years showed the highest interpersonal knowledge. Students of 16 years and older scored *lowest* for interpersonal knowledge [$F(3) = 5.76$, $p = .001$, $\eta^2 = .003$]. Grade level also appeared to relate significantly to the observed differences in citizenship knowledge but, again, differently depending on the knowledge domain [$\Lambda = .971$, $F(4, 10,268) = 37.98$, $p = .001$, $\eta^2 = .015$]. Ninth grade students showed the highest societal knowledge [$F(2) = 72.31$, $p = .001$, $\eta^2 = .027$] while sixth grade students showed the highest interpersonal knowledge $F(2) = 6.95$, $p = .001$, $\eta^2 = .003$. Finally, school level related similarly to the two domains of citizenship knowledge, with relatively large effect sizes for the differences observed in the two domains [$\Lambda = .920$, $F(2, 5,134) = 221.72$, $p = .001$, $\eta^2 = .080$]. Students in general secondary education (i.e. the higher levels of secondary school in the Netherlands) produced the highest societal knowledge scores [$F(1) = 430.06$, $p = .001$, $\eta^2 = .077$]; students in pre-vocational education (i.e. the lower levels of secondary school in the Netherlands) produced the lowest interpersonal knowledge scores—even lower than the scores of the students in primary school for this domain of citizenship knowledge [$F(1) = 188.89$, $p = .001$, $\eta^2 = .035$]. The ethnic origin of the students did not explain differences in their citizenship knowledge.

3.5 Participation in school/society and perceptions of school climate in relation to citizenship orientations and knowledge domains

Inspection of Table 7 shows citizenship participation and student perceptions of the school climate together to explain less than 3% of the variance in the citizenship orientations and citizenship knowledge of the students. Student participation and student perceptions of the school thus bear little relation to measures of the citizenship competences of students.

Only news engagement showed a consistently high association with the citizenship orientations [$\Lambda = .846$, $F(72, 28,566) = 17.30$, $p = .001$, $\eta^2 = .041$], but a much lower association with the citizenship knowledge [$\Lambda = .942$, $F(60, 14,632) = 7.00$, $p = .001$, $\eta^2 = .017$]. For the four citizenship orientations: The more the students reported being engaged with the news, the higher their scores for societal interest [$F(18) = 53.25$, $p = .001$, $\eta^2 = .120$], prosocial ability [$F(18) = 19.68$, $p = .001$, $\eta^2 = .046$], reflective thinking [$F(18) = 37.58$, $p = .001$, $\eta^2 = .085$] and assertiveness [$F(18) = 10.86$, $p = .001$, $\eta^2 = .026$]. Also for the two knowledge domains: The more the students reported being engaged with the news, the higher their scores for societal knowledge [$F(18) = 10.62$, $p = .001$, $\eta^2 = .025$] and interpersonal knowledge [$F(18) = 9.65$, $p = .001$, $\eta^2 = .023$].

Table 7 Overview of significant differences in citizenship orientations and citizenship knowledge of students according to their citizenship participation, news engagement and perceptions of school climate

	Citizenship orientations				Citizenship knowledge	
	Societal interest	Prosocial ability	Reflective thinking	Assertiveness	Societal knowledge	Interpersonal knowledge
Societal participation	+	+	+	n.s.	–	–
School participation	+	+	+	n.s.	–	–
News engagement	+	+	+	+	+	+
School climate 1: student–teacher relationships	+	+	+	+	+	+
School climate 2: student relationships	n.s.	n.s.	–	–	+	+
School climate 3: social behaviour between students	+	+	+	+	–	n.s.

Results significant at 5% level; non-significant results indicated with n.s.

4 Conclusions and discussion

A framework for integrating the theoretical insights and empirical data on the citizenship competences of young people was developed and evaluated in the present research. The aim of this endeavour was to integrate the separate components of student competences (i.e. citizenship attitudes, skills, knowledge and reflection) to facilitate more systematic research on citizenship and provide a better match between the goals of citizenship education and the operationalization of citizenship of students.

The results of exploratory and confirmatory factor analyses on measures of attitudes, skills, knowledge and reflection for a large sample of students showed the framework to be suitable for understanding their citizenship knowledge and competences. Four citizenship orientations and two domains of citizenship knowledge could be distinguished for the students. The students thus differed with respect to interest (i.e. a societal interest orientation), adjustment and social behaviour (i.e. a prosocial ability orientation), reflection and attention to social issues (i.e. a reflective thinking orientation) and the capacity to formulate and defend one's own opinion (i.e. an assertiveness orientation). In addition, the students also differed with respect to specific domains of citizenship knowledge in the form of political and democratic knowledge (i.e. societal knowledge) and social-behavioural knowledge (i.e. interpersonal knowledge).

The developed framework can thus facilitate the empirical evaluation of citizenship education efforts and the extent to which the aims of such efforts are achieved or not by providing a bridge between generally formulated goals and the citizenship competences of students on a day-to-day basis. The developed framework may also

help schools better formulate their goals for citizenship education and thus the development of specific citizenship competences and domains of citizenship knowledge. It may be that schools will formulate different goals and perform different activities depending on the aspects of citizenship they want to develop (e.g. societal interest, prosocial abilities, reflective thinking and/or assertiveness).

The four citizenship orientations of the students in our research showed only a weak relationship to their citizenship knowledge. This findings align with the findings of [Ten Dam et al. \(2011\)](#) when they demonstrated the construct validity of the Citizenship Competences Questionnaire. Strong interrelations were found among the attitudes, skills and reflection of young people with regard to citizenship but few interrelations with their citizenship knowledge.

The conclusion suggested by our framework of citizenship orientations and domains of citizenship knowledge is that the citizenship knowledge and citizenship orientations of students should be considered separately in the formulation of the goals of citizenship education and their measurement. The framework was developed using a large sample of students and cross-validated using a national and thus representative sample of students in the Netherlands. International validation of the framework is the next step to be taken to determine the extent to which the insights gained here apply elsewhere. Only further research can address the question of how culture-specific the citizenship orientations and domains of citizenship knowledge may be. The conceptualization of citizenship may certainly differ across countries ([Banks 1993](#)), which has yet to be taken into account in the empirical literature to date. Testing and comparison of the present framework in international research is therefore recommended.

The Dutch educational system is characterized by a large degree of differentiation ([van de Werfhorst and Mijs 2010](#)). After primary school, students are selected for admission to different levels and types of secondary school (i.e. educational tracks). Our finding of differences in the citizenship knowledge of students from different school tracks confirms the results of other empirical research in the Netherlands, showing students in higher tracks to have greater citizenship knowledge ([Geijsel et al. 2012](#); [Maslowski et al. 2010](#)). Even after control for the social-economic and minority/majority backgrounds of the students, those in pre-vocational education were found to be less oriented towards societal interest and assertiveness than those in higher general secondary education. This finding supports the findings of earlier research in the field of citizenship education in the Netherlands showing teachers in pre-vocational education to primarily teach students about how to behave appropriately and to emphasize the elementary rules of social interaction and adaptation, while teachers in higher general secondary education tracks focus more on the competences needed for active and critical citizenship in their teaching of students ([Ten Dam and Volman 2003](#); [Leenders et al. 2008](#)). To gain greater insight into the inequalities in citizenship education as a result of different educational institutions, pedagogical approaches and levels of school, further research is required.

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