



**UvA-DARE (Digital Academic Repository)**

**Citizenship development of adolescents during the lower grades of secondary education**

Geboers, E.; Geijssel, F.; Admiraal, W.; Jorgensen, T.; ten Dam, G.

*Published in:*  
Journal of Adolescence

*DOI:*  
[10.1016/j.adolescence.2015.08.017](https://doi.org/10.1016/j.adolescence.2015.08.017)

[Link to publication](#)

*Citation for published version (APA):*  
Geboers, E., Geijssel, F., Admiraal, W., Jorgensen, T., & ten Dam, G. (2015). Citizenship development of adolescents during the lower grades of secondary education. *Journal of Adolescence*, 45, 89-97.  
<https://doi.org/10.1016/j.adolescence.2015.08.017>

**General rights**

It is not permitted to download or to forward/distribute the text or part of it without the consent of the author(s) and/or copyright holder(s), other than for strictly personal, individual use, unless the work is under an open content license (like Creative Commons).

**Disclaimer/Complaints regulations**

If you believe that digital publication of certain material infringes any of your rights or (privacy) interests, please let the Library know, stating your reasons. In case of a legitimate complaint, the Library will make the material inaccessible and/or remove it from the website. Please Ask the Library: <https://uba.uva.nl/en/contact>, or a letter to: Library of the University of Amsterdam, Secretariat, Singel 425, 1012 WP Amsterdam, The Netherlands. You will be contacted as soon as possible.



## Citizenship development of adolescents during the lower grades of secondary education



Ellen Geboers<sup>a,\*</sup>, Femke Geijsel<sup>a,b</sup>, Wilfried Admiraal<sup>c</sup>, Terrence Jorgensen<sup>a</sup>, Geert ten Dam<sup>a</sup>

<sup>a</sup> Department of Child Development and Education, Faculty of Social and Behavioural Sciences of the University of Amsterdam, The Netherlands

<sup>b</sup> The Netherlands Academy of Leadership in Education, The Netherlands

<sup>c</sup> ICLO, Leiden University Graduate School of Teaching, The Netherlands

### ARTICLE INFO

#### Article history:

Available online xxx

#### Keywords:

Citizenship development  
Citizenship education  
Secondary education  
Longitudinal analysis

### ABSTRACT

The present study focuses on the development of citizenship competences of Dutch adolescents, including the political and social aspects as part of adolescents' daily lives. We followed 5070 adolescents aged 12–16 years across a three-year period in lower secondary education. The variance on school and student level was estimated and a three-level mixed-effects regression model was fit to analyze differences in citizenship development. The results indeed show development of citizenship competences during secondary school, but the observed patterns were not always positive. Students generally showed an increase in their citizenship knowledge, but a decline in their societal interest, prosocial ability and reflective thinking. Differences between groups of students could be explained by both schools and student characteristics. Especially girls and minority students developed the most citizenship competences. Understanding these differences is important for schools to improve their practices in ways that support the development of citizenship competences of various groups of students.

© 2015 The Foundation for Professionals in Services for Adolescents. Published by Elsevier Ltd. All rights reserved.

### Introduction

Fostering 'educated citizenship' is one of the main tasks of schools (Campbell, Levinson, & Hess, 2012). Citizenship of adolescents as an educational goal is usually conceptualized in terms of the specific knowledge, skills, attitudes and reflection which people need to adequately and responsibly participate in a democratic society (Geboers, Geijsel, Admiraal, & Ten Dam, 2012; Knight Abowitz & Harnish, 2006). These components can be seen to form part of a broader concept of 'competences' (Rychen & Salganik, 2003). From the literature it is known that citizenship competences and behaviors differ for groups of students with regard to age, academic ability, SES, gender and ethnic background (e.g. Schulz, Ainley, Fraillon, Kerr, & Losito, 2010; Torney-Purta, 2002). From an educational psychology point of view mainly the specific age-related phase of

\* Corresponding author.

E-mail addresses: [E.A.M.Geboers@uva.nl](mailto:E.A.M.Geboers@uva.nl) (E. Geboers), [F.P.Geijsel@uva.nl](mailto:F.P.Geijsel@uva.nl) (F. Geijsel), [W.F.Admiraal@iclon.leidenuniv.nl](mailto:W.F.Admiraal@iclon.leidenuniv.nl) (W. Admiraal), [T.D.Jorgensen@uva.nl](mailto:T.D.Jorgensen@uva.nl) (T. Jorgensen), [G.T.M.Tendam@uva.nl](mailto:G.T.M.Tendam@uva.nl) (G. ten Dam).

development of students is accentuated, whereas sociologists' interpretations focus on students' social background and social capital and the way in which schools affect inequality in learning among students (e.g. Van de Werfhorst & Mijs, 2010).

An important issue that is increasingly addressed in the literature concerns the developmental trajectories of citizenship competences over time (Cleaver, Ireland, Kerr, & Lopes, 2005; Eckstein, Noack, & Gniewosz, 2012; Keating, Kerr, Benton, Mundy, & Lopes, 2010; Zaff, Boyd, Li, Lerner, & Lerner, 2010). These longitudinal studies largely concern the political domain of adolescents' citizenship development. The present study aims at gaining insight into the development of citizenship competences including both political and social aspects, starting from the argument that in the daily lives of adolescents citizenship is learned in a variety of practices. 5070 Dutch students aged 12–16 years across a period of three years (2007–2010), i.e. the first three years of secondary education, was examined to study the development of a broad area of citizenship competences as well as the differences for groups of students based on background characteristics.

### *The development of citizenship competences*

Although citizenship is essentially a contested concept, varying from communitarian to liberal and critical-emancipatory interpretations, it is primarily linked to the notion of democracy (Westheimer & Kahne, 2004). Barber (1994) distinguishes between 'thin' and 'strong' democracies. A thin democracy stems from a perspective of individualistic rights and actually diminishes the role of citizens in democratic governance. A strong democracy requires the participation of all people in all forms of social and political life. In much of the empirical literature on young people's citizenship competences, the focus is almost exclusively on the political aspects (e.g. political participation and engagement, voting, democratic attitudes) and, as a consequence, mainly on future citizenship (Geboers et al., 2012; Lawy & Biesta, 2006). Emphasizing the importance of a strong and resilient democracy, we interpret citizenship as a capacity to function in a socially accepted, responsible manner within a community and a capacity to critically evaluate different perspectives, explore strategies for change, reflect upon (in) equality, and democratic engagement (Westheimer, 2008).

In daily life, children and adolescents participate in all kind of practices, both social and political by nature, that allow them to build up their citizenship competences. Schools specifically function as learning environments for citizenship, not only because school time is a structural part of young people's daily life, but in and around schools they also meet peers and become part of social endeavors and challenges, such as the importance of taking care for one another and the difficulty of building up one's personal identity in an interdependent environment. Also they will find themselves confronted with new forms and roles of authority, the meaning of the existence of different interests and perspectives, as well as means to deal with that (speak up for yourself, classroom voting for joint decisions etcetera). Moreover, education – if the pedagogical space of the school is used well – provides both additional knowledge and opportunity for reflection upon such participation in social and political practice (or lack of it). Thus, childhood and especially adolescence are essential periods for the acquisition, practice, development and expansion of social skills, attitudes and behavior and schools take role in this.

Several longitudinal studies focus on the developmental trajectories of students' citizenship competences during adolescence. In particular such aspects of citizenship as obeying and agreement with the law, equal rights, trust in the government, political engagement, civic participation and participation in voluntary or service activities are investigated. In the German study of Eckstein et al. (2012) longitudinal stability was found between grade 8 and 9 and between grade 9 and 10 on students' willingness to participate in politics. Also the study of Zaff et al. (2010) showed invariance over time of active and engaged citizenship (i.e., the civic duty, the civic skills, the neighborhood social connections and the civic participation) of U.S. high school students from 8th to 10th grade. In the English studies of Cleaver et al. (2005) and Keating et al. (2010), however, a 'dip' was found in the citizenship attitudes with less positive efficacy, participation and trust in the government of 14 and 15-year-olds.

### *The school as a place for citizenship practice*

Experiencing social and political practices that adolescents encounter and the extent or quality of participation differs for groups according to background characteristics (such as age, gender, cognitive ability, home environment). So it seems obvious that the development of citizenship competences resulting from participation in and reflection on these practices might differ for groups of students as well. Such differences were indeed found, as mentioned above. In several studies differences between students appear not only to be related to their social background but also to school track (Eckstein et al., 2012; cf. Janmaat, Mostafa, & Hoskins, 2014). International research – mainly concerning the political domain of citizenship – shows that schools have an impact on students' citizenship competences (approximately 25% of the variance found; Schulz et al., 2010). To answer the question what schools can accomplish, researchers have mainly concentrated on educational programs and pedagogical climate. Stimulating a democratic classroom climate, nurturing mutual respect, and creating opportunities for students to learn and practice democracy are found to foster citizenship (Geboers et al., 2012).

In particular in the differentiated educational system of the Netherlands where students at the end of primary school are selected for admission to either prevocational education or general secondary education, also the influence of school track is a relevant factor as it has been found to correlate with different types of citizenship (see also Geboers, Geijssel, Admiraal, & Ten Dam, 2014).

## The present study

In this study, we investigated the development of citizenship competences and group differences over time. Both the political and social domains of citizenship were taken into account, in order to capture a broad conceptualization of democratic citizenship embedded in adolescents' daily lives. With our study we aimed to strengthen scientific and practical notions concerning effective and successful contribution of education to the development of citizenship competences. The specific research questions were:

1. To what extent does the development of citizenship competences differ across various groups of secondary education students between the age of 12–16 years?
2. To what extent do schools play a role in the development of citizenship competences?

## Method

### Participants

Data were collected in 24 secondary schools: 13 prevocational and 11 general secondary schools. The schools were all located in the Netherlands and part of the Dutch *Citizenship Alliance* in which institutes for curriculum development, the Dutch Inspectorate of Education, universities and schools cooperate for the development and evaluation of citizenship education. The schools varied with regard to denomination, location and student population. Data were collected in the school years of 2007–8 (November: N = 3747), 2008–9 (April: N = 3143) and 2009–10 (April: N = 3248) with a total of 5070 students who had scores on at least one measurement time.

### Measures of citizenship

Four *citizenship orientations* (societal interest, prosocial ability, reflective thinking and assertiveness) and two *knowledge domains* (societal knowledge and interpersonal knowledge) were measured using the Citizenship Competences Questionnaire (CCQ; Ten Dam, Geijsel, Reumerman, & Ledoux, 2011), which was administered during class. The CCQ is composed of 85 items divided across 17 subscales measuring the core components of citizenship competences (i.e., knowledge, attitudes, skills and reflection) for four categories of social tasks (i.e., acting democratically, acting in a social responsible manner, dealing with conflicts and dealing with differences). Students are asked to estimate their attitudes, skills and reflection regarding citizenship along four-point Likert scales with higher scores indicating a higher frequency or greater applicability. For the knowledge component a multiple-choice test was administered with three response options for each question.

Scores for the four citizenship orientations and two knowledge domains were calculated on the basis of 14 subscales from the CCQ after a procedure of exploratory and confirmatory factor analyses (Geboers, Geijsel, Admiraal, & Ten Dam, 2015; see for an overview Appendix 1). The reliability coefficients (Cronbach's alpha) were calculated on the basis of the scores for the

**Table 1**  
Overview of reliability ( $\alpha$ ) and mean scores (sd.) for citizenship orientations and knowledge domains on three measurement occasions.

Subscales of the CCQ	Citizenship orientations	$\alpha^a$	T1 Mean (sd.)	T2 Mean (sd.)	T3 Mean (sd.)
Attitude acting democratically factor 2 (willingness to contribute critically; 3 items)	Societal interest	0.85	3.02 (0.128)	2.73 (0.129)	2.81 (0.043)
Attitude dealing with differences (6 items on a 4-point Likert scale)	Prosocial ability	0.87	3.01 (0.021)	3.00 (0.021)	3.00 (0.021)
Attitude dealing with conflicts (6 items)					
Skill acting democratically factor 2 (listening to the opinions of others) (3 items)	Reflective thinking	0.92	2.37 (0.035)	2.24 (0.035)	2.14 (0.035)
Skill acting in a social responsible manner and dealing with conflicts (5 items)					
Skill dealing with differences (4 items)					
Reflection acting democratically (6 items)	Assertiveness	0.76	3.25 (0.031)	3.27 (0.032)	3.25 (0.031)
Reflection acting in a social responsible manner (6 items)					
Reflection dealing with differences (8 items)	Citizenship knowledge domains	0.89	0.71 (0.012)	0.77 (0.013)	0.81 (0.012)
Skill acting democratically factor 1 (come up for one's own opinion; 3 items)					
Knowledge acting democratically (8 items)					
Knowledge dealing with differences (6 items)					
Knowledge acting in a social responsible manner (6 items)	Interpersonal knowledge	0.89	0.74 (0.047)	0.64 (0.048)	0.71 (0.017)
Knowledge dealing with conflicts (7 items)					

<sup>a</sup> Note: to calculate the Cronbach's alpha's, a correction of test extension up to 6 items was applied.

original CCQ subscales across the three year period using a correction of the Spearman Brown test extension up to six items (see Table 1).

The *citizenship orientations* are combinations of the specific citizenship attitudes, skills and values needed for individuals to become competent citizens. A combination of *attitudes* indicating a willingness to participate in the community, *skills* needed for suitable participation in the community and *critical reflection* on issues of social equality or inequality related to that participation can thus manifest itself as an orientation (Geboers et al., 2015).

The *societal interest orientation* involves attitudes reflecting a willingness to be a part of a community and take responsibility for other people; an interest in social issues and other people; an interest in maintaining relationships; and respect for others and their differences. A societal interest orientation is measured via two scales indicating attitudes towards acting democratically and dealing with differences. The general question *How well does this statement apply to you?* was posed for the items constituting these scales; for example, *People who earn enough, should jointly care for those who are less well off.* The correlation of this orientation with the other three orientations has been found to vary between  $r = .52$  (prosocial ability) and  $r = .30$  (assertiveness).

The *prosocial ability orientation* concerns the skills needed for adequate communication and adaptation to the habits and practices of a society; familiarity with the social rules, being polite (for instance); consideration for others; and an ability to converse and show empathy with others. The prosocial ability orientation is measured using five scales measuring attitudes towards dealing with conflicts, the efficacy to act democratically, skills to act in a socially responsible manner, skills to deal with conflicts and skills to deal with differences. Questions like *How good are you at thinking up a solution to the satisfaction of everyone?* constituted these scales. The correlation of this orientation with the other three orientations was found to vary between  $r = .52$  (societal interest) and  $r = .33$  (assertiveness).

The *reflective thinking orientation* concerns critical reflection on social issues and social structures in society, discrimination and trying to understand social relations. The reflective thinking orientation is measured using three scales indicating the extent to which students think about democratic issues, issues of social responsibility and differences between people. Questions like *How often do you think about whether or not pupils are listened to at your school?* constituted the items in these scales. The correlation of this orientation with the other three orientations was found to vary between  $r = .50$  (societal interest) and  $r = .16$  (assertiveness). Students generally showed lower scores on this orientation (see Table 1).

The *assertiveness orientation* concerns the skills needed to clearly formulate ideas and opinions and also to stand up for them. The assertiveness orientation is measured using one scale indicating the skill of the students to formulate and assert their own opinion. Questions like *How good are you at making your opinion clear in a discussion?* was posed for the items in this scale. The correlation of this orientation with the other three orientations was found to vary between  $r = .33$  (prosocial ability) and  $r = .16$  (reflective thinking). As can be seen in Table 1, the students in our study produced the highest score for this assertiveness orientation; they think they are good at formulating their own ideas and opinions but also standing up for these.

Two citizenship knowledge domains were measured using a knowledge test that contains 27 multiple choice items. *Societal knowledge* concerns knowledge of the democratic principles of society, the organization and the norms of society. For measurement, respondents are presented three response options for each test item and asked to *Choose the best answer*. For example: a country is referred to as undemocratic when: a) political parties criticize each other, b) people have to pay high taxes, c) people are not allowed to criticize the government. Option c is the correct answer (score of 1); the other options are assigned a score of 0. Table 1 shows that the students are relatively knowledgeable of democratic principles, societal norms and the organization of society.

*Interpersonal knowledge* concerns knowledge of prevailing social values, behavioral rules, and everyday social manners. Respondents are presented a scenario and three response options per test item, for example: You get into a big argument with a classmate. Looking back, it is clear that you were wrong. What should you do? a) simply avoid each other, b) say that you are sorry because you were wrong, c) simply do not talk about it and act normal again towards each other. Option b is the correct answer (score of 1); the other options are assigned a score of 0. The correlation between the two knowledge domains was found to be relatively high ( $r = .64$ ). The correlation between the respective citizenship orientations and knowledge domains were found to be relatively low and vary between  $r = .27$  (interpersonal knowledge with prosocial ability) and  $r = .01$  (interpersonal knowledge with reflective thinking).

### Student backgrounds

Information on the backgrounds of the students was obtained by asking them 9 questions following administration of the CCQ: gender (dichotomous variable), age (categorical variable: 10–11 years, 12–13 years, 14–15 years, 16 years or older), school level father (categorical variable: no school or only primary school = low SES, primary school and secondary education = medium SES, at least higher vocational education = high SES), home language (dichotomous variable: Dutch or not Dutch) parents origin (dichotomous variable: born in the Netherlands or in another country). See Table 2.

In addition, the students' citizenship participation and perceptions of the school climate were probed. The students were asked in which *societal activities* they participated (i.e. scouting, multicultural organizations, religious communities or volunteer work) and in which *school activities* they took part (i.e. student council, school paper or class captain). Both the total of societal activities and the total number of school activities was averaged. The students were further probed about their *engagement with the news* (e.g. *How often do you read articles in newspapers?*) They answered along four-point Likert scales with higher scores indicating a higher frequency (4 items,  $\alpha = .84$ ; scale: mean news engagement). Finally, the students were

**Table 2**

Overview of student background characteristics in percentages; mean (sd.) for citizenship characteristics.

Student background characteristics				N = 5070			
Gender	50.8%	Boy	49.2%	Girl			
Age	83.9%	12–13 years	14.2%	14–15 years	1.9%	16 years or older	
SES	5.3%	Low	37.5%	Middle	57.2%	High	
Ethnic origin	78.8%	Non-minority	21.2%	Minority			
Language	91.3%	Dutch	8.7%	Not Dutch			
Educational level	51.2%	Prevocational	48.8%	General secondary			
Citizenship characteristics				$\alpha^a$	T1	T2	T3
					N = 3742	N = 3145	N = 3121
					Mean (sd.)	Mean (sd.)	Mean (sd.)
Societal participation (8 activities, mean activity)					0.14 (0.12)	0.15 (0.13)	0.15 (0.13)
School participation (5 activities, mean activity)					0.06 (0.14)	0.21 (0.11)	0.21 (0.11)
News engagement (4 items, judged using 4-point Likert scale)				0.86	2.15 (0.74)	2.14 (0.74)	2.22 (0.75)
School climate (16 items, judged using 4-point Likert scale)				0.70	2.88 (0.48)	2.64 (0.47)	2.56 (0.46)

<sup>a</sup> Note: to calculate the Cronbach's alpha's, a correction of test extension up to 6 items was applied.

asked about *the school climate* using three subscales: student–teacher relationships (6 items,  $\alpha = .77$ ; e.g. *Do the teachers respect the students?*), student relationships (5 items,  $\alpha = .75$ ; e.g. *Do the students bully each other?*) and social behavior between students (5 items,  $\alpha = .73$ ; e.g. *Are the students willing to help each other, even if they are not friends?*). Again along four-point Likert scales with higher scores indicating a greater appropriateness (scale: student's mean perception of school climate). Most student characteristics had meaningful zeros, but news engagement and school climate could only be positive. To make other parameter estimates interpretable in the case of an interaction with either of these variables, news engagement and school climate were both centered at their means (see Table 2).

### Analyses

A three-level mixed-effects regression model was fit to all six outcomes (four citizenship orientations and two citizenship knowledge), using full-information maximum likelihood (FIML) estimation in the R software package lme4 (Bates, Mächler, Bolker, & Walker, submitted for publication). The use of FIML allows all available data to be included in the analysis (regardless of how many occasions a student was measured), and results in unbiased parameter estimates. Multilevel modeling was necessary to account for dependence among observations due to repeated measures (Level 1) nested within students (Level 2), as well as students being nested within schools (Level 3).

First, we analyzed the missing data (see Appendix 2 for specific results and testing). Six schools did not participate at either Time 2 or Time 3 or both because they were involved with other research at that time. This missing data resulting from this can be assumed missing at random (MAR; Little, Jorgensen, Lang, & Moore, 2014). For the other 11% of the data points that were missing, inclusion of student characteristics that might explain attrition (e.g., sex, ethnicity, SES indicators) as variables in the model, justified the MAR assumption for those data as well (Singer & Willett, 2003, 157–159).

Before adding other predictors to the six outcome models, the effect of time was compared in two ways. First, time was coded as a single continuous variable indicating the number of years since the first measurement (i.e., 0, 1.41, and 2.41) to model the effect of time as linear growth. To test whether the assumption of linear growth was tenable, a second model was run with two dummy codes for the second (April 2009) and third (April 2010) measurements, treating the first occasion (November 2007) as the referent. The model with linear growth is nested within the dummy-codes model, so the assumption of linear growth can be tested using the change in the deviance ( $-2 \times \log$ -likelihood), which is distributed as a  $\chi^2$  random variable with one degree of freedom (for one more parameter; see Appendix 3 for specific results and testing).

Although familiar standardized measures of effects size using OLS estimation (e.g.,  $R^2$  in regression, sometimes called  $\eta^2$  in ANOVA) cannot be calculated for multilevel models using FIML, a similarly interpreted pseudo- $R^2$  can be calculated for each level of measurement (see Singer & Willett, 2003). That is, Level-1 (time-varying) predictors can explain a proportion of Level-1 variance, estimated by calculating the reduction in Level-1 residual variance from a model without those predictors. Likewise, Level-2 predictors (student characteristics that are constant over time) can explain some Level-2 variance.

### Results

Model parameter estimates and significance tests are reported for the four citizenship orientations and two citizenship knowledge outcomes in Table 3.

All main effects are included for all 6 outcomes, but interactions are only included in the final model if they are significant. Level-2 ICCs ranged from 40 to 43%, indicating the proportion of total variance in the outcomes that is due to mean-differences between individual students. Level-3 ICCs ranged from 2 to 6%, indicating the proportion of total variance due to differences between school means.

**Table 3**

Univariate results for the development of the four citizenship orientations and two knowledge domains.

	Societal interest	Prosocial ability	Reflective thinking	Assertiveness	Societal knowledge	Interpersonal knowledge
Level-2 ICC (level-3 ICC)	42.6% (5.9%)	43.4% (2.3%)	39.7% (4.7%)	42.1% (1.9%)	42.6% (5.9%)	43.4% (2.3%)
Level-1 (occasion-specific) residual variance	0.141 ( <i>N</i> = 5807)	0.082 ( <i>N</i> = 5832)	0.171 ( <i>N</i> = 5830)	0.165 ( <i>N</i> = 5830)	0.018 ( <i>N</i> = 5841)	0.023 ( <i>N</i> = 5841)
Level-2 (student-specific) residual variance	0.096 ( <i>N</i> = 3131)	0.054 ( <i>N</i> = 3139)	0.109 ( <i>N</i> = 3136)	0.136 ( <i>N</i> = 3139)	0.010 ( <i>N</i> = 3139)	0.011 ( <i>N</i> = 3139)
Level-3 (school-specific) residual variance	0.007 ( <i>N</i> = 24)	0.0004 ( <i>N</i> = 24)	0.007 ( <i>N</i> = 24)	0.002 ( <i>N</i> = 24)	0.001 ( <i>N</i> = 24)	0.0003 ( <i>N</i> = 24)
Parameter	<i>b</i> ( <i>SE</i> ), <i>df</i> <sup>a</sup> = 5784	<i>b</i> ( <i>SE</i> ), <i>df</i> <sup>a</sup> = 5806	<i>b</i> ( <i>SE</i> ), <i>df</i> <sup>a</sup> = 5808	<i>b</i> ( <i>SE</i> ), <i>df</i> <sup>a</sup> = 5811	<i>b</i> ( <i>SE</i> ), <i>df</i> <sup>a</sup> = 5820	<i>b</i> ( <i>SE</i> ), <i>df</i> <sup>a</sup> = 5813
Constant (intercept)	2.83 (0.03)**	2.91 (0.06)**	2.29 (0.10)**	3.18 (0.10)**	0.84 (0.03)**	0.79 (0.04)**
<b>Level-1 model</b>						
Year (linear, or dummy codes below)						
Time 2 (compared to Time 1)	–0.12 (0.03)**	0.01 (0.02)	–0.12 (0.01)**	–0.001 (0.01)	0.04 (0.003)**	0.05 (0.01)**
Time 3 (compared to Time 1)	–0.15 (0.03)**	0.04 (0.02)*				0.07 (0.01)**
School climate	0.20 (0.01)**	0.27 (0.01)**	0.09 (0.02)**	0.04 (0.02)*	0.02 (0.005)**	0.07 (0.01)**
Societal participation	0.06 (0.08)	0.23 (0.04)**	0.53 (0.06)**	0.04 (0.06)	–0.17 (0.02)**	–0.11 (0.02)**
School participation	–0.02 (0.06)	–0.06 (0.05)	0.11 (0.06)	–0.06 (0.06)	–0.10 (0.02)**	–0.12 (0.02)**
News engagement	0.26 (0.01)**	0.14 (0.01)**	0.27 (0.01)**	0.11 (0.01)**	0.01 (0.003)**	0.03 (0.004)**
School climate*news engagement		–0.03 (0.01)**				
Time 2*societal participation	0.19 (0.13)					
Time 3*societal participation	0.30 (0.12)*					
Time 2*news engagement		–0.01 (0.01)				
Time 3*news engagement		–0.03 (0.01)*				
<b>Level-2 model</b>						
Male	–0.09 (0.02)**	–0.14 (0.02)**	0.04 (0.08)	0.01 (0.02)	–0.11 (0.02)**	–0.13 (0.03)**
Immigrant	0.21 (0.03)**	0.09 (0.02)**	0.065 (0.034)	0.13 (0.04)**	–0.018 (0.009)	–0.04 (0.01)**
Native Dutch	0.01 (0.03)	0.053 (0.025)*	–0.05 (0.04)	–0.01 (0.04)	0.04 (0.01)**	0.05 (0.01)**
VMBO (prevocational program)	–0.06 (0.04)	0.08 (0.02)**	0.06 (0.04)	–0.046 (0.025)	–0.11 (0.01)**	–0.07 (0.01)**
Age group (compared to 10–11)						
12–13	0.01 (0.07)	0.03 (0.05)	–0.08 (0.08)	0.02 (0.08)	0.004 (0.02)	–0.01 (0.02)
14–15	0.01 (0.07)	0.03 (0.05)	–0.06 (0.08)	0.07 (0.08)	–0.01 (0.02)	–0.04 (0.03)
16+	0.02 (0.08)	0.01 (0.06)	–0.08 (0.09)	0.11 (0.09)	–0.03 (0.04)	–0.05 (0.03)
Father's education (compared to primary)						
Middle school	–0.06 (0.04)	–0.02 (0.03)	0.01 (0.06)	–0.02 (0.05)	–0.001 (0.02)	–0.01 (0.02)
High school or university	0.01 (0.04)	0.04 (0.03)	0.08 (0.06)	0.05 (0.05)	0.004 (0.02)	0.005 (0.02)
Male*father's educ (middle)			–0.21 (0.08)**		0.07 (0.03)*	0.07 (0.03)*
Male*father's educ (high/univ)			–0.26 (0.08)**		0.07 (0.02)**	0.06 (0.03)*
Male*immigrant				–0.10 (0.05)*		0.05 (0.02)**
Male*VMBO			0.08 (0.03)*		–0.02 (0.01)*	
<b>Cross-level interactions</b>						
Year*immigrant			0.034 (0.016)*			
Time 2*male	0.19 (0.13)	–0.02 (0.02)				–0.01 (0.01)
Time 2*immigrant						–0.004 (0.01)
Time 2*VMBO		–0.02 (0.02)				–0.05 (0.01)**
Time 3*male	0.30 (0.12)*	–0.04 (0.02)				–0.03 (0.01)**
Time 3*immigrant						–0.028 (0.014)*
Time 3*VMBO		–0.04 (0.02)*				–0.02 (0.01)

Note: if effect was not significant, cells were left empty.

\**p* < .05; \*\**p* < .01.<sup>a</sup> The residual degrees of freedom are for the *t* statistic, calculated by dividing the slope *b* by its *SE*.

### Societal interest

At Time 1, boys had significantly less societal interest than girls. For girls with mean societal participation, Time-2 and -3 societal interest was significantly lower than Time 1, but for boys with mean societal participation, Time-2 interest was similar to Time 1 and Time-3 interest was significantly greater.<sup>1</sup> Societal participation had no significant effect at Time 1, but its effect increased over time and had a significantly positive effect on societal interest at Time 3. School participation had no significant effect, but school climate and news engagement both had significant positive effects on societal interest. Overall, children of immigrants had significantly more societal interest than children of native Dutch parents. There were no significant effects of language, school track, age group, or SES.

<sup>1</sup> Note that the analyses show that there are interactions between (a) time and societal participation, as well as between (b) time and sex. We interpreted the effect of time separately for boys and for girls. Those effects are conditional on societal participation being held constant at the grand mean (because it interacts with time).

### *Prosocial ability*

At Time 1, boys had less prosocial ability than girls, and prevocational students had more prosocial ability than other students. Time-2 ability differences were similar, but at Time 3, boys had (significantly) even less prosocial ability than girls and prevocational students were significantly more similar to other students. Students with average perception of school climate had a positive association between news engagement and prosocial ability, and students with average engagement had a positive association between school climate and prosocial ability. The significant interaction term is negative, so each of these positive effects became less positive for students higher on the other variable. The effect of news engagement also decreased slightly over time (only significantly so at Time 3). Overall, societal participation had a positive effect on ability, but school participation had no effect. Overall, greater average prosocial ability was found among students who were native Dutch speakers and whose parents were immigrants. Age group and father's education had no effect.

### *Reflective thinking*

At Time 1, there was no significant difference between children of immigrants and of native Dutch parents, but we found an interaction effect with time: Reflective thinking significantly decreased over time, but significantly less so for children of immigrants than of natives. School climate, news engagement, and societal participation had positive effects on reflective thinking; school participation had no effect. Among girls, there was no effect of father's education, but higher education of the father was associated with significantly less reflective thinking among boys. There was no significant difference between school track for girls; for boys, prevocational students had significantly higher reflective thinking than higher-track students. The mean-difference between sexes was not significant among students in higher school track programs or whose father's had low education status, but in prevocational programs, boys had significantly more reflective thinking than girls, and among fathers with low education status, boys had significantly less reflective thinking than girls. There was no significant effect of language or of age group.

### *Assertiveness*

Overall there was no significant effect of time, but there was found an interaction effect between parental origin and sex: immigrants' boys are significantly less assertive than immigrants' girls and girls whose parents are natives are significantly less assertive than girls whose parents are immigrants. School climate and news engagement were both positively associated with assertiveness, but there was no significant effect of societal or school participation, language, school track, age group, or father's education.

### *Societal knowledge*

On average, societal knowledge significantly increased over time. We found significantly positive associations of school climate and news engagement with societal knowledge, and significantly negative associations of societal and school participation with societal knowledge. Among higher-education students and fathers with low education, boys had significantly less societal knowledge than girls. That difference disappeared among fathers with more education, but the difference became significantly more extreme among prevocational students. There was no significant effect of age or parental origin, but native Dutch speakers had significantly more societal knowledge than non-native speakers.

### *Interpersonal knowledge*

Among higher-education girls whose parents are native Dutch, the mean interpersonal knowledge at Times 2 and 3 are significantly higher than Time 1. The interaction terms indicate that change over time is significantly less extreme for prevocational students at Time 2, and at Time 3 change is significantly less extreme for boys and for children of immigrants.

At Time 1, boys with native parents and whose fathers have low education have less interpersonal knowledge than girls with native parents and whose fathers have low education. The interaction terms indicate that the sex difference becomes significantly more extreme at Time 3, but is significantly less extreme for children with native parents and whose fathers have more education.

At Time 1, girls of immigrants have less interpersonal knowledge than girls of natives and this difference becomes significantly more extreme by Time 3, but the difference is not significant among boys. Also, among girls father's education has no effect, but among boys, father's education is significantly positively associated with interpersonal knowledge. At Time 1, prevocational students have less interpersonal knowledge than other students, and this mean-difference is significantly more extreme at Time 2, but not at Time 3.

Native Dutch speakers had significantly more interpersonal knowledge than non-native speakers. School climate and news engagement had significant positive associations with interpersonal knowledge, whereas societal and school participation have significant negative associations with interpersonal knowledge. There was no significant effect of age.



## Discussion and conclusions

The aim of this study was to gain greater insight into the development of the citizenship competences during adolescence from a broad perspective on citizenship including both political and social aspects. The citizenship competences of Dutch adolescents were investigated within the context of secondary education. Our study showed mixed results with respect to students' development of the citizenship competences over time. Students generally showed an increase in their knowledge of citizenship, but a decline in their societal interest, prosocial ability and their reflective thinking. No changes were found in students' assertiveness. Further, our longitudinal study showed that the patterns of citizenship development differed according to students' background characteristics. Girls generally developed more societal interest, prosocial ability and greater societal- and interpersonal knowledge than boys. Students of immigrants developed a significantly greater societal interest, prosocial ability and more assertiveness than students with native parents. They also show a less deep decrease on reflective thinking. Moreover, the results showed students in a higher educational track (i.e. general secondary and pre-university education) to develop more citizenship knowledge than students in a lower educational track (i.e. prevocational education).

Generally, the decline in students' societal interest and reflective thinking are in line with the results of earlier studies by Cleaver et al. (2005) and Keating et al. (2010) who report a 'dip' in the citizenship attitudes, engagement and interest of English students between the ages of 14–16 years. From a developmental psychology perspective (cf. Eisenberg & Morris, 2004) it can be suggested that rebellion against social conventions and rejection of a community orientation or so-called 'puberty effects' may explain the 'dip' observed. The life-stage of young people at this age can thus possibly be assumed to play a key role in the citizenship development. From a critical pedagogical perspective, experiences with having little or no possibility for discussion or a voice in things, both in and out of school, can prompt disengagement among older adolescents in particular (Geijsel, Ledoux, Reumerman, & Ten Dam, 2012). Finally it may be possible that adolescents – as they get older – become more critical of themselves, which may be reflected in their responses to the CCQ. Although some authors have highlighted the role of political circumstances within countries in the development of citizenship competences of students (Sherrod, Flanagan, & Youniss, 2002), no remarkable political events have occurred in the Netherlands between the three measurements that could explain the 'dip' otherwise. In our study, we only followed students up to grade 9 (i.e. 15–16 years of age). A few studies indicate an increase in political engagement after the age of sixteen, even when they are inactive during younger years (e.g. Finlay, Flanagan, & Wray-Lake, 2011). More research is needed on the effects of the prevailing dip on the future citizenship development when students become young adults. In particular, we argue for studies that explicitly address also the social aspects of citizenship and situate citizenship competences in daily practices.

More specifically, the present study indicates that citizenship knowledge appears to develop differently than citizenship orientations. On the basis of their studies in the 1990s Melchior et al. (1998) and Niemi and Junn (1998) suggest that older students (i.e. 17–18 years of age) have a general better understanding of politics and society into which new information, concepts or experiences can be integrated. Our finding that greater participation in society in general and the school in particular were related to lower levels of citizenship knowledge contradicts this suggestion. It coincides, however, with the findings of an international study on the (cognitive) citizenship outcomes for secondary-school students across countries in which this negative relationship also came forward (Isac, Maslowski, Creemers, & Van der Werf, 2014). Also, in a review of the effects of citizenship education on the citizenship of students, involvement in extracurricular activities and social service were found to only affect students' social and political attitudes and their behavior related to citizenship but hardly their citizenship knowledge (Geboers et al., 2012). This counter-intuitive issue calls for further research.

Several authors have pointed out that the experiences and knowledge people accumulate are influenced by their positions within a particular social, economic and political system and structure of the society they live in (e.g. Wilkinson & Pickett, 2010). The experiences of ethnic minority students are presumably more dominated by differentiation and the presence of conflicting perspectives (cf. Geijsel et al., 2012), which may – in turn – prompt them towards a greater societal interest about differences and inequalities in society and also to more prosocial ability and assertiveness than majority students. A more thorough understanding of the emergence of differences in the development of adolescents' citizenship in interplay with socio-economic or cultural factors is worthwhile and can provide building blocks for an effective pedagogical approach for various groups of students.

### *Citizenship education*

International research (Schulz et al., 2010) found that schools have an impact on students' citizenship. In our research we also found significant school differences for citizenship competences (between 2 and 6% of the variance found).

Despite the informative picture of the citizenship development of students in secondary education, a limitation of the present research is that detailed information about citizenship practices of the schools was not available for analysis. All variables directly relevant for the development of students' citizenship competences were measured at the student level, including perceptions of the school climate. Moreover, it should be noted that the schools within the *Citizenship Alliance* may be somewhat similar to each other as they all shared the view that schools should contribute to the citizenship competences of students. This makes our sample not a completely representative one. However, the participating schools were not selected on the basis of their perspectives or implementation level: schools with all kind of societal visions, methods or types of secondary education were able to participate. Our study sheds only limited light on the question *which* activities and types of citizenship education as provided by teachers have added value for the citizenship development of particular groups of

students. Students' perceptions of the school climate, societal participation, school participation and engagement with the news all influenced their citizenship orientations positively. More specifically, further research is needed to clarify to what extent and how education can compensate for the prevailing dip in the citizenship competences of adolescents and how secondary schools can be made better places for students to learn and practice citizenship competences.

## Appendix A. Supplementary data

Supplementary data related to this article can be found at <http://dx.doi.org/10.1016/j.adolescence.2015.08.017>.

## References

- Barber, B. (1994). *Strong democracy* (2nd ed.). Berkeley, CA: University of California Press.
- Bates D., Mächler M., Bolker B.M. & Walker S., lme4: linear mixed-effects models using Eigen and S4, (submitted for publication). ArXiv e-print retrieved from <http://arxiv.org/abs/1406.5823>.
- Campbell, D. E., Levinson, M., & Hess, F. M. (Eds.). (2012). *Making civics count: Citizenship education for a new generation*. Cambridge: Harvard Education Press.
- Cleaver, E., Ireland, E., Kerr, D., & Lopes, J. (2005). *Citizenship education longitudinal study: Second cross-sectional survey 2004*. DfES Research Report 626. London: DFES.
- Eckstein, K., Noack, P., & Gniewosz, B. (2012). Attitudes toward political engagement and willingness to participate in politics: trajectories throughout adolescence. *Journal of Adolescence*, 35(3), 485–495. <http://dx.doi.org/10.1016/j.adolescence.2011.07.002>.
- Eisenberg, N., & Morris, A. M. (2004). Moral cognitions and prosocial responding in adolescents. In R. M. Lerner, & L. Steinberg (Eds.), *Handbook of adolescents* (pp. 155–188). Hoboken, NJ: Wiley.
- Finlay, A. K., Flanagan, C., & Wray-Lake, L. (2011). Civic engagement patterns and transitions over 8 years: the AmeriCorps national study. *Developmental Psychology*, 47(6), 1728–1743. <http://dx.doi.org/10.1037/a0025360>.
- Geboers, E., Geijsel, F., Admiraal, W., & Ten Dam, G. (2012). Review of the effects of citizenship education. *Educational Research Journal*, 9, 158–173. <http://dx.doi.org/10.1016/j.edurev.2012.2.001>.
- Geijsel, F., Ledoux, G., Reuerman, R., & Ten Dam, G. (2012). Citizenship in young people's daily lives. *Journal of Youth Studies*, 15, 711–729. <http://dx.doi.org/10.1080/13676261.2012.671932>.
- Geboers, E., Geijsel, F., Admiraal, W., & Ten Dam, G. (2014). Typology of student citizenship. *European Journal of Education*, 49, 514–528.
- Geboers, E., Geijsel, F., Admiraal, W., & Ten Dam, G. (2015). Citizenship orientations and knowledge in primary and secondary education. *Social Psychology of Education*. <http://dx.doi.org/10.1007/s11218-014-9265-7>.
- Isac, M. M., Maslowski, R., Creemers, B., & Van der Werf, G. (2014). The contribution of schooling to secondary-school students' citizenship outcomes across countries. *School Effectiveness and School Improvement*, 25(1), 29–63. <http://dx.doi.org/10.1080/09243453.2012.751035>.
- Janmaat, J. G., Mostafa, T., & Hoskins, B. (2014). Widening the participation gap: the effect of educational track on reported voting in England. *Journal of Adolescence*, 37, 473–482. <http://dx.doi.org/10.1016/j.adolescence.2014.03.011>.
- Keating, A., Kerr, D., Benton, T., Mundy, E., & Lopes, J. (2010). *Citizenship education in England 2001–2010: Young people's practices and prospects for the future*. Research Report DFE-RR059.
- Knight Abowitz, K., & Harnish, J. (2006). Contemporary discourses of citizenship. *Review of Educational Research*, 76, 653–690. <http://dx.doi.org/10.3102/00346543076004653>.
- Lawy, R., & Biesta, G. (2006). Citizenship-as-practice: the educational implications of an inclusive and relational understanding of citizenship. *British Journal of Educational Studies*, 54, 34–50. <http://dx.doi.org/10.1111/j.1467-8527.2006.00335>.
- Little, T. D., Jorgensen, T. D., Lang, K. M., & Moore, E. W. G. (2014). On the joys of missing data. *Journal of Pediatric Psychology*, 39(2), 151–162. <http://dx.doi.org/10.1093/jpepsy/jst048>.
- Melchior, A., Frees, J., LaCava, L., Kingsley, C., Nahas, J., Power, J., et al. (1998). *National evaluation of learn and serve America school and community-based programs*. Cambridge, MA: Brandeis University.
- Niemi, R. G., & Junn, J. (1998). *Civic education*. New Haven, CT: Yale University Press.
- Rychen, D. S., & Salganik, L. H. (2003). *Key competencies for a successful life and well-functioning society*. Göttingen: Hogrefe & Huber Publishers, ISBN 0-88937-272-1.
- Schulz, W., Ainley, J., Fraillon, J., Kerr, D., & Losito, B. (2010). *Initial findings from the IEA international civic and citizenship education study*. Amsterdam: IEA, ISBN 978-9-0795-4906-1.
- Sherrod, L. R., Flanagan, C., & Youniss, J. (2002). Dimensions of citizenship and opportunities for youth development. *Applied Developmental Science*, 6(4), 264–272. <http://dx.doi.org/10.1207/S1532480XADS0604-14>.
- Singer, J. D., & Willett, J. B. (2003). *Applied longitudinal data analysis: Modeling change and event occurrence*. New York, NY: Oxford University Press.
- Ten Dam, G., Geijsel, F., Reuerman, R., & Ledoux, G. (2011). Measuring citizenship competences of young people. *European Journal of Education*, 46, 354–372. <http://dx.doi.org/10.1111/j.1465-3435.2011.01485>.
- Torney-Purta, J. (2002). Patterns in the civic knowledge, engagement, and attitudes of European adolescents. *European Journal of Education*, 37, 129–141. Stable URL <http://www.jstor.org/stable/1503794>.
- Van de Werfhorst, H. G., & Mijs, J. J. B. (2010). Achievement inequality and the institutional structure of educational systems: a comparative perspective. *Annual Review of Sociology*, 36, 407–428. <http://dx.doi.org/10.1146/annurev.soc.012809.102538>.
- Westheimer, J. (2008). On the relationship between political and moral engagement. In F. Oser, & W. Veugelers (Eds.), *Getting involved* (pp. 17–29). Rotterdam/Taipei: Sense Publishers, ISBN 978-90-8790-636-8.
- Westheimer, J., & Kahne, J. (2004). What kind of citizen? *American Educational Research Journal*, 41, 237–269. Stable URL <http://www.jstor.org/stable/3699366>.
- Wilkinson, R. G., & Pickett, K. (2010). *The spirit level*. New York: Bloomsbury Press.
- Zaff, J., Boyd, M., Li, Y., Lerner, J. V., & Lerner, R. M. (2010). Active and engaged citizenship: multiple-group and longitudinal factorial analysis of an integrated construct of civic engagement. *Journal of Youth Adolescence*, 39, 736–750. <http://dx.doi.org/10.1007/s10964-010-9541-6>.