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### Influencing youth citizenship

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**Publication date**

2016

**Document Version**

Final published version

[Link to publication](#)

**Citation for published version (APA):**

Eidhof, B. B. F. (2016). *Influencing youth citizenship*. [Thesis, fully internal, Universiteit van Amsterdam].

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## 4. Inequalities in Youth Citizenship Knowledge: Does the Peer Language Environment Matter?<sup>1</sup>

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**Abstract:** Amidst worries about growing inequalities in citizenship competences of younger generations, policymakers increasingly call on schools to prepare students for functioning in democratic society. The degree to which teachers can address inequalities in citizenship outcomes of their students may depend on the composition of the classroom, however. Here, we investigate to what degree language peer characteristics are associated with youth citizenship knowledge in primary education for early adolescents (grade 6) in the Netherlands, using nationally representative data. Our findings suggest that inequalities in citizenship knowledge may be reduced when low language ability students are surrounded with classroom peers who display both variation in and high average levels of language ability. Being surrounded with high language ability peers was shown to have a negative general effect on citizenship knowledge for the average student, in line with the big-fish-little-pond effect.

**Keywords:** citizenship knowledge, language, peer effects, compositional effects, inequalities, primary education

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<sup>1</sup> Based on: Eidhof, B.B.F., Ten Dam, G.T.M., Dijkstra, A.B., Van De Werfhorst, H.G. (Submitted). Inequalities in youth citizenship knowledge: does the peer language environment matter?

## **Introduction**

For the past two decades, policymakers, professionals and scholars have been worried about erosion of social cohesion, youth's disengagement with politics and socially unsafe schools in many democratic societies (Eurydice, 2012; Galston, 2007). As of recently, increases in social and political inequalities by educational level can be added to the list of worries. For instance, in the last few elections, the youngest European generations of voters show substantially greater inequalities in democratic participation according to educational level than the generations before them did when they were young (Abendschön, Schäfer, & Rossteutscher, 2014; Bartels, 2009; Gallego, 2007). These inequalities pose a fundamental threat to democracy: after all, how can the democratic system claim legitimacy or equality of democratic opportunity when large parts of the electorate – in particular, younger and lower educated citizens – are disengaged from politics? As such inequalities already manifest themselves at an age at which individuals reach the legal voting age, they must be caused by mechanisms that are present during pre-adulthood, when most youngsters are still at school.

Education is often seen as an instrument with the potential to address these problems. As educational systems typically reach virtually all young citizens due to compulsory education legislature, they are thought to be particularly suited to perform two tasks. First, they may elevate the general level of citizenship competence of students. Secondly, in reaching practically all young citizens, education may alleviate pre-existing inequalities between students. As such, schools are thought to be able to increase the overall quality of citizenship competence in a population and provide more equality of civic opportunity.

Indeed, in response to the aforementioned challenges, policymakers in many democratic societies have called on schools to equip their students for civic participation, typically by means of civic or citizenship education (Eurydice, 2012; The National Task Force on Civic Learning and Democratic Engagement, 2012). Providing citizenship education can be considered an important task for schools. As policymakers and educators have recognized the relevance of this task, researchers have begun to investigate which citizenship outcomes are particularly desirable for schools to pursue and how to achieve them. Common findings are that giving structural attention to citizenship in the curriculum,

fostering an open classroom climate in which controversial topics are discussed from multiple perspectives, and reflection on community service can stimulate citizenship knowledge and skills (Geboers, Geijssel, Admiraal, Ten Dam, 2013; Isac, Maslowski, Creemers, & Van Der Werf, 2014; Keating, Kerr, Benton, Mundy, & Lopes, 2010; Torney-Purta, 2002; Van Goethem, Van Hoof, Orobio de Castro, Van Aken, Hart, 2014).

These findings suggest that classroom peers may play an important role in the development of citizenship knowledge and skills during classroom discussion and reflection. At the individual level, language ability has been shown to be strongly associated with citizenship outcomes (Chapter 3, this dissertation). Are individual citizenship outcomes also influenced by the language abilities of classroom peers? The contribution of this chapter lies in addressing this question, while investigating whether pre-existing inequalities in citizenship knowledge are influenced by the language characteristics of classroom peers. To our knowledge, educational citizenship outcomes, such as citizenship knowledge, have not been used as outcome variables of interest in the literature on peer effects<sup>2</sup>, not in general nor in relation to the effects of peer language ability. So far, authors studying other social outcomes of education, such as interethnic friendships, have predominantly focused on the effects of peers' ethnicities (Graham, Munniksma, & Juvonen, 2014; Moody, 2001; Quillian & Campbell, 2003).

With regard to academic achievement outcomes, a wide range of studies on peer effects have been conducted, however. In a review, Sacerdote (2014) finds that methodologically more advanced studies commonly report modest effects of peer characteristics such as high prior ability and socio-economic background on outcomes such as language and mathematics scores. Typically, higher ability students have a positive effect on the achievement of their classroom peers under *ceteris paribus* conditions. The main goal of this chapter is to investigate what impact language classroom composition has on the development of citizenship outcomes. To what extent is the average classroom language level and variation in language level associated with inequalities in citizenship knowledge of primary school students? Insight into this question would allow schools and

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<sup>2</sup> The term peer effects is used in multiple ways in the literature. Here, we use it to denote compositional and differential effects of peer group characteristics, in which the peer group is defined as all students belonging to the same primary school classroom.

teachers to adapt their policies and practices to exploit these compositional characteristics in order to raise the citizenship knowledge of lower performing students.

We focus on youth citizenship knowledge of grade 6 primary education students, as it allows us to study the development of citizenship knowledge and relate it to the language composition of the classroom at an early part of the formative phase. Pre-adolescence appears to be a relatively potent period for youth citizenship development, given the stagnation of citizenship development that occurs during early adolescence in personal efficacy and citizenship development (Torney-Purta & Amadeo, 2011, who point at the great potential of this developmental phase for acquiring citizenship skills and dispositions, see also Keating et al., 2010; Geijsel, Ledoux, Reumerman, Ten Dam, 2012). Therefore, we expect changes in inequalities to be both more likely and impactful in pre-adolescent years, as both early individual differences in ability and continued exposure to peer effects may accumulate over time (Heckman, 2006; Lauder et al., 1999). Moreover, raising citizenship knowledge has been shown to be an effective strategy to revitalize and sustain democratic citizenship (Galston, 2007). Finally, we conceptualize youth citizenship in accord with Ten Dam, Geijsel, Reumerman, and Ledoux (2011), who have put forward a notion of youth citizenship that is embedded into the daily lives of young people (see also Lawy & Biesta, 2006). This conceptualization is centered around four exemplary citizenship tasks: acting democratically, acting in a socially responsible manner, dealing with conflicts and dealing with differences.

### **Theoretical background**

In the social sciences, there has been a growing literature on the effects of peer group characteristics on individual outcomes. The different econometric, sociological and psychological studies have considered both a great number of individual outcomes and definitions of peer groups, ranging from neighborhood peers to within-classroom peers. The study of peer effects in education has thus far largely focused on academic achievement outcomes such as language ability, mathematics ability and GPA scores. On the basis of the studies carried out on peer effects, we argue that peers may also influence one's citizenship knowledge. In particular, we hypothesize that the level of and variation in language ability of classmates may affect inequalities in students' citizenship knowledge,

with sufficiently high level of and variation in peer language level improving low language ability students' performance.

### **Peer effects on traditional academic achievement outcomes**

The study of peer effects in education started with the landmark *Equality of Educational Opportunity* study by Coleman *et al.* (1966). In this U.S. study, Coleman colleagues report that students' achievement was "[...] strongly related to the educational background and aspirations of other students in the school." Subsequently, a Canadian study found student performance to increase with average classroom IQ score (Henderson, Mieszkowski, & Sauvageau, 1978), although this relationship was reported to be nonlinear, with diminishing marginal returns. Both studies suggested that academic achievement of students depends in part on the characteristics of other students sharing the same classroom or school. Typically, these characteristics include students' socio-economic background and prior achievement variables, which are aggregated into school or class averages.

While the study of underlying mechanisms has received little attention, peer effects have been studied in a variety of countries and educational contexts in recent years. In reviews of reported findings, evidence about the existence and magnitude of peer effects were found to be inconclusive, however (Thrupp, Lauder, & Robinson, 2002; Vigdor & Nechyda, 2007). These observations have led to a critical evaluation of the methodological soundness of many peer effect studies (Ammermueller & Pischke, 2009; Glewwe, 1997; Manski, 1993; Thrupp, Lauder, & Robinson, 2002). Recent research has attempted to incorporate these methodological considerations. Three such studies will be used to illustrate the current state of affairs in the academic achievement literature on primary education peer effects.

Firstly, Ammermueller and Pischke (2009) analyse the degree to which the number of books peer students report to have at home influences reading test scores of primary school students in six European countries. Taking the influence of selection of students into schools and measurement error into account, they find that on average across countries, a one standard deviation increase in peer language ability level leads to a 0.17 standard deviation increase in reading test scores. Secondly, Vigdor and Nechyba (2007) find that characteristics of the classroom peer group correlate substantially with individual achievement for both reading and mathematics scores, using lagged test scores of North

Carolina primary school students. However, in a set of additional analyses on schools that exhibit more year-to-year variation in peer group characteristics, they find little evidence that relatively rapid change in peer group composition influences individual achievement levels. This suggests that peer composition either needs to be stable over a period of time to impact individual achievement or that the relationship between peer group characteristics and individual achievement is not causal in nature. Thirdly, in a study on the primary school desegregation program Metco in Boston, Angrist and Lang (2004) analyze to which degree peer effects are present by exploiting policy-driven exogenous shocks in classroom composition. They find that potential peer effects on four traditional academic achievement outcomes are modest and short-lived at best after addressing multiple methodological considerations such as using instrument variable analysis to control for omitted variable bias.

Taken together, these three studies illustrate that the findings of studies which investigate the effect of peer group's characteristics on academic achievement outcomes in primary school remain somewhat inconclusive, despite methodological advances. The majority of the studies on primary and secondary education use linear-in-means models. This model assumes a general effect of the mean characteristic of the peer group, which implies that more subtle relationships between peer characteristics and individual outcomes may be overlooked. In a recent review of the literature on peer effects, Sacerdote (2014) finds that approximately half of the peer effects studies that assume linear-in-means effects report modest or large effects on test scores. The other half of the studies do not find peer effects on academic achievement scores. In a qualification of this finding, Sacerdote reports that estimated peer effects can be found more often when the assumption of the linear-in-means model are replaced by assumptions that allow for a more sophisticated analysis of peer effects. In particular, taking into account that the effect may vary by both the distribution of peer characteristics and the student's position in the distribution of test scores leads to reporting of more robust peer effects (Hoxby & Weingarth, 2005; Imberman, Kugler, & Sacerdote, 2012).

### **Peer effects on social outcomes**

Relatively few studies have scrutinized to what degree peer effects are relevant for social outcomes. While citizenship knowledge is cognitive in nature, it also pertains to

interpersonal and democratic processes that are distinctively social. For the purposes of this study, we broadly define social outcomes here to be outcomes that relate to situations in which social interaction plays an important role, be they of interpersonal, public or political nature. Sacerdote (2014) finds that larger peer effects are found for social outcomes than for academic achievement outcomes. Peer effects studies on social outcomes find substantial effects of peer characteristics on binge drinking, smoking, taking up paternity leave, church going and the likelihood of joining a fraternity or sorority, among others (Dahl, Loken, & Mogstad, 2012; Duncan, Boisjoly, Kremer, Levery, & Eccles, 2005; Gavira & Raphael, 2001; Huisman, Van de Werfhorst & Monshouwer, 2012; Sacerdote, 2001).

### **Peer effects on youth citizenship: potential mechanisms**

As mentioned, studies on peer effects in education have not always investigated the mechanisms that allow such effects to manifest themselves. A few hypotheses have nevertheless been put forward. The first explanation that is mentioned by various authors, is that peer effects may be caused by increases in performance due to social comparison mechanisms (Blanton, Buunk, Gibbons, & Kuyper, 1999; Eisenkopf, 2010; Huguet, Dumas, Monteil, & Genestoux, 2001). However, the reference point central to social comparison theory is that of the specific other (i.e., a comparison made by a student with a specific other student), rather than that of the generalized other (i.e., the average performance of the peer group). As the latter is the reference point of interest for our purposes, the big-fish-little-pond-effect (BFLPE) hypothesis provides more relevant insights. Among others things, the BFLPE hypothesis states that after controlling for individual ability, students develop a relatively lower academic self-concept in higher performing classes or schools. Academic self-concept, in turn, is predictive of a range of academic achievement outcomes (Marsh et al., 2008). As such, average peer language ability may also have a negative effect on citizenship knowledge of all students after controlling for individual ability.

There is also evidence that suggests a positive relationship between peer language ability and youth citizenship outcomes. For instance, in addition to an open classroom climate, the quality of dialogue among students has been shown to influence youth citizenship outcomes (Schuitema, van Boxtel, Veugelers, Ten Dam, 2009; Schuitema,

Veugelers, Rijlaarsdam, Ten Dam, 2011). Therefore, if one's peers display higher language ability, they are more able to express themselves verbally, which may lead to higher quality classroom dialogue. To our knowledge, no existing studies have suggested mechanisms that may explain potential differential peer effects in relation to citizenship knowledge acquisition.

### **Hypotheses**

One of the most potent influences on student citizenship outcomes is the so-called open classroom climate. This concept indicates to which degree students feel safe in expressing their opinions and controversial topics are discussed from a variety of perspectives. A meta-analysis has shown that an open classroom climate is associated with high citizenship outcomes (Geboers et al., 2013). Another factor that is associated with high citizenship outcomes is individual language ability (chapter 3). Language ability has been shown to be important for social interactions, of which citizenship situations are a subset. In particular, language is thought to be essential for developing meaning, reflection and perspective taking ability (Astington & Jenkins, 1999; Hughes et al., 2005; Taylor, 1985). Moreover, verbal ability is seen as essential resource for political participation, given its role in being able to reason, persuade and organize (Brady, Verba, & Schlozman, 1995).

Given the importance of both language ability and classroom discussion for the development of citizenship knowledge and skills, we expect that peer language ability characteristics may also influence these outcomes, in multiple ways. In exploring these outcomes, we will investigate two research questions. First of all, we will investigate whether the peer language environment affects students of varying ability differently, by testing two differential peer effect hypotheses. The respective hypotheses accompanying these research questions are informed by previous findings that low language ability students' potential for citizenship learning in relation is higher relative to their high language ability peers (chapter 3). As such, exposure to high quality classroom interaction may lead to relatively more opportunities for citizenship learning. The first differential peer effect hypothesis states that low language ability students perform better in classrooms with a high average language levels, given their relatively higher potential for acquisition of citizenship knowledge. The second differential peer effects hypothesis states that low language ability students perform better in classrooms with sufficient variation in language

level. The motivation for this hypothesis again lies in the higher potential for citizenship learning in these classrooms (as compared to classrooms with little or no variation in language ability), in addition to the assumption that teachers and fellow students are more likely to ensure that language used in classroom discussions is more accessible to and inclusive of low language ability students when more variation in language level exists in the classroom.

The second research question that will be explored is how better performing students positively influence their peers' citizenship development. Although the academic achievement peer effects literature suggests a positive relationship between classroom average achievement and individual student achievement (e.g., Hoxby & Weingarth, 2005; Sacerdote, 2014), citizenship education is not subject to the same formal requirements and systematic assessment as language and mathematics education in the Netherlands, preventing straightforward prediction. Therefore, two competing hypotheses will be tested. The first hypothesis is that controlling for individual language ability, students will perform less in higher language ability classrooms, due to the big-fish-little-pond-effect, which may negatively impact relatively cognitive learning outcomes such as citizenship knowledge acquisition (Marsh et al., 2008). The second hypothesis is that higher peer language ability may increase citizenship knowledge by increasing the quality of classroom discussion, based on Schuitema and colleagues' findings (2009; 2011).

### **Primary schools in the Dutch context**

As mentioned, our conceptualization of youth citizenship is centered around four exemplary citizenship tasks: acting democratically, acting in a socially responsible manner, dealing with conflicts and dealing with differences. Students who are equipped with citizenship knowledge and skills are expected to be able to deal with these tasks in a way that is desirable in democratic societies. Primary schools in the Netherlands are by law expected to contribute to the active citizenship and social integration of their students.

Typically, Dutch primary schools do not sort their students in classes by ability, although a minority of primary schools has indicated that they sort students by reading ability to some degree. Using representative data, Ammermueller and Pischke (2009) do not find evidence for non-random assignment of students to classes in the Netherlands, nor do they find much difference in reading scores between classes in schools that indicate

the use of tracking and those that do not. Unlike in secondary education, primary education in the Netherlands is predominantly untracked, with identical classroom compositions across subjects.

## **Methods**

### **Data**

The analyses have been performed on the Cohort Research on Educational Careers data, a nationally representative school cohort study in the Netherlands. The samples of this school-based survey consisted of 17,403 students in 1,081 grade 6 classes at 671 primary schools in the Netherlands (Driessen, Mulder, & Roeleveld, 2012). The average age of the grade 6 Dutch primary schools that participated was 12 years and 5 months (S.D. = approximately 7 months).

### **Addressing methodological concerns in the study of peer effects**

As mentioned, a number of methodological concerns have been raised in the study of peer effects in recent years, spurred by the various conflicting results that have been reported. In this section, we explain how we address a number of methodological concerns.

First of all, Calvó-Armengol, Patacchini, and Zenou (2009) argue that the boundaries of the peer group are often arbitrary in studies on peer effects. We address this concern by taking the classroom as the boundary for the peer group, as this gives peers a higher likelihood of interaction than using the school as the boundary. In particular, as classrooms represent the basic unit in which learning takes place in schools, peer effects are more likely as classroom discussions involving all students take place in this setting. This assumption is supported by Vigdor and Nechyba's findings (2007), which show classroom peer effects to be more frequently and substantially correlated with individual achievement than grade-level peer effects.

Secondly, Ammermueller and Pischke (2009) note that measurement error can lead to substantial bias in the estimation of peer effects. Our peer characteristics suffer less from measurement error, as they are not measured by self-reports but assessed objectively. Moreover, to avoid imprecise measurement of aggregated peer characteristics due to high proportions of missing data at the classroom level, classrooms with more than 30% missing data are removed.

Thirdly, Manski (1995) and others have pointed out that peer effect studies in education may suffer from selection bias, as students may not sort randomly into schools. Instead the characteristics of the peer population may influence school selection by students and parents. In studies that have explicitly controlled for contextual effects (Ammermueller, & Pischke, 2009; McEwan, 2003), the magnitude of such effects was found to be small and of little practical significance. We nonetheless include school fixed effects analyses to control for contextual effects caused by selection bias.

An additional methodological criticism is directed at the linear-in-means approach, in which the mean peer characteristic is assumed to have a similar, linear effect on all students. However, means are likely not the only peer group characteristic that matters, while possible also affecting students of different ability in different ways (Glewwe, 1997; Hoxby & Weingarth, 2005; Sacerdote, 2014). We address this methodological consideration in two ways: (1) by including the standard deviation of peer language ability and (2) by including the interactions between individual language and mathematics ability on the one hand and the peer group characteristics on the other hand. The latter allows us to investigate whether low ability student are impacted differently by peer group characteristics than high ability students.

### **Analytical design**

Given the nested structure of the data, multilevel analyses were performed. The results of three models are given; model 1 includes student-level variables control variables, model 2 adds class-level variables to model 1, while model 3 removes schools with only one class and includes school fixed effects. Cohorts from both 2008 and 2011 were present in the sample. Possible cohort effects were controlled for by including *cohort* as a control variable.

### **Measurements**

#### *Independent variables*

With regard to peer language characteristics, both *class average language level* and *class standard deviation in language level* have been included. The latter is constructed by taking the standard deviation of students' language performance scores. These variables are also including in the cross-level interactions with students' z-standardized *language ability* scores, as measured

by standardized national reading comprehension tests provided by national testing agency Cito.

#### *Control variables*

To exclude variance caused by other factors than language ability, the control variables *age*, *gender* (0 = male, 1 = female), *household religion* (operationalized as a student's mother's religion), *ethnicity* (*Surinam Dutch*, *native Dutch*, *Turkish Dutch*, *Moroccan Dutch* and *Other*), *parental education* (highest level of education completed = pre-vocational education (1), general/vocational secondary education or senior vocational education (2) and higher education (3)<sup>3</sup>), z-standardized *language ability* and *mathematics ability* scores were included, using scores on tests provided by national testing agency Cito. For *household religion*, 34% of respondents displayed missing data. Multiple imputation was used to impute missing values for *household religion* using the dependent variables, parental education and ethnicity as predictor variables. At the class level, the variable *Classroom Climate* is included. *Classroom Climate* indicates the proportion of students scoring higher than 3 points on a 5 point scale. This scale consisted of six items, measuring agreement to statements such as 'I have a lot of contact with my classmates' and 'My classmates and I get along well.'

To control for the socio-economic composition of the classroom, variables for the proportions of students with parents that have completed pre-vocational education (1), general/vocational secondary education or senior vocational education (2) and higher education (3) have been included. Moreover, the ethnic composition of the classroom was controlled for by variables indicating the proportions of students with Surinam Dutch, native Dutch, Turkish Dutch and Moroccan Dutch ethnic backgrounds per classroom, as these represent the largest ethnic groups in the Netherlands. To improve reliability of classroom composition measures, classes were only included if five or more students provided data without missing values and no more than 30% of students exhibit one or more missing values after multiple imputation on household religion.

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<sup>3</sup> In our Dutch sample, these levels are operationalized as LBO (including LO, BaO, VBO), MBO (including MAVO, HAVO and VWO) or HBO/WO as maximum levels of education completed.

*Dependent variables*

For measurement of youth citizenship knowledge in the COOL data, the Citizenship Competences Questionnaire (Ten Dam et al., 2011) was used. This instrument aims to measure youth citizenship by putting emphasis on four citizenship tasks: acting democratically, acting in a socially responsible manner, dealing with conflicts and dealing with differences. The knowledge test consisted of 27 multiple-choice questions with three response options for each question and the instruction to indicate which option best answers the question. For instance: “*All children have a right to: a) an allowance, b) choose who they want to live with or c) education*”. The citizenship knowledge scores were z-standardized.

**Results**

The descriptives of the data can be found in Appendix C. As can be seen in table 1, most variance is explained by factors at the individual level, with school and class factors jointly explaining 10,8% of the total variance in citizenship knowledge.

**Table 1. Variance components for citizenship knowledge.**

<b>Level</b>	<b>ICC</b>
<i>School</i>	0.052
<i>Class</i>	0.056
<i>Individual</i>	0.893

As shown by the different models in table 2, regression coefficients are similar when controlling for class level variables and non-random selection into schools. All significant regression coefficients are similar in magnitude and direction across the three models.

As model 3 shows, the two cross-level interactions are significant: lower language ability students report relatively higher citizenship knowledge scores in classes with a high average language level. This differential peer effect is even stronger when the peer characteristic is variation in average peer language level, in line with the second differential peer effect hypothesis. These peer language ability coefficients represent 14.5% and 30.9% of students’ individual language ability coefficient, respectively. Thus, particularly low language ability students appear to have higher citizenship knowledge when surrounded by

classroom peers of which some have a higher language ability and others display a level of language ability similar to their own.

The main effect of class average language level is negatively correlated with individual citizenship knowledge, with a one standard deviation rise in classroom average language level corresponding to a 0.14 standard deviation decline in citizenship knowledge, representing 25,5% of students' individual language ability coefficient. This finding is in line with the BFLP-hypothesis. In an additional analysis, removal of individual language ability control variables resulted in the disappearance of a significant average peer language ability effect, in support of the potential presence of a BFLPE mechanism.

**Table 2. Regressions for Citizenship Knowledge - Peer Effects and Interactions**

	(1)		(2)		(3)	
	Effect	Interaction with Language ability	Effect	Interaction with Language ability	Effect	Interaction with Language ability
Class average language level	-0.06 (0.08)	-0.08*** (0.01)	-0.12*** (0.03)	-0.08*** (0.01)	-0.14*** (0.03)	-0.08*** (0.01)
Class SD language level	-0.08 (0.05)	-0.16*** (0.03)	-0.07 (0.05)	-0.16*** (0.03)	0.00 (0.05)	-0.17*** (0.03)
Individual language ability	0.55*** (0.03)	n/a	0.55*** (0.03)	n/a	0.55*** (0.03)	n/a
Student-level variables	✓	✓	✓	✓	✓	✓
Class-level variables			✓	✓	✓	✓
Only schools >1 class					✓	✓
School fixed effects					✓	✓
N (students)		16812		16812		12687
N (classes)		1037		1037		782
N (schools)		653		653		402

Note: Model 1 includes student-level control variables; Model 2 add class-level variables to Model 1; Model 3 only includes schools with more than 1 class and includes school fixed effects. Standard errors in parentheses; \* p < 0.05, \*\* p < 0.01, \*\*\* p < 0.001

## Discussion

Schools are expected to prepare students for their functioning in democratic society. Therefore, teachers attempt to increase the citizenship learning outcomes of their students. Moreover, they potentially address pre-existing inequalities in students' citizenship outcomes due to differences in social background. Does classroom language ability composition need to be taken into account as well when pursuing these objectives? Our findings suggest a cautious affirmative answer to this question.

First of all, we investigated whether the relation between peer language characteristics and students' citizenship knowledge holds equally for students of different ability levels. Our findings suggest that this is not the case. Instead, low language ability students report relatively higher citizenship knowledge in classrooms with a high average language ability and variation when controlling for other factors. This differential peer effect is strongest when the peer characteristic is variation in average peer language level, supporting the second differential peer effect hypothesis. Thus, particularly low language ability students appear to have higher citizenship knowledge when surrounded by classroom peers of which some have a higher language ability and others display a level of language ability similar to their own. In other words, one might say that low language ability students report lower citizenship knowledge scores when surrounded by low language ability peers with little variation in ability.

Do better performing students positively influence their peers' academic achievement? Here, we find that a high class average language level is negatively associated with citizenship knowledge, in line with the BFLP-hypothesis. The additional analysis, in which individual language ability control variables were removed, resulted in the disappearance of a significant average peer language ability effect, in line with the potential presence of a BFLPE mechanism. However, this does not completely refute the competing hypothesis – the influence of peer language ability on citizenship knowledge via the quality of classroom discussion may be present as well, yet less pronounced. Importantly, the findings only provide support for this relationship for students that report scores near 0 on the interaction variables, given our analytical design.

An alternative explanation for this finding specific to the Dutch context might be that classes with many low language ability students may experience more conflicts that are addressed by nonverbal, aggressive means. This may in turn spur additional allocation of

resources to citizenship programs. Indeed, one of the most frequently implemented primary education citizenship programs in the Netherlands, the Peacable School (in Dutch, “*De Vreedzame School*”), was initially often implemented as a means to restore classroom order. Implementation of this program may have been more effective at schools with pupils from predominantly lower educated immigrant households, perhaps due to the greater allocation of resources (Pauw, 2013; Verhoeven, 2012).

When the peer effects on citizenship knowledge are considered in unison, these findings add a qualification to Hoxby and Weingarth’s (2005) Boutique model of peer effects, which states that being surrounded by peers with similar characteristics may result in higher achievement, as the learning environment adapts more to the presence of a certain type of students when these students are more numerous. The qualification suggested by the results is that while higher ability students indeed benefit from an environment of peers with similarly high language abilities, lower language ability students not only benefit from the presence of higher language ability students, but from a variation in language ability level as well. One can indeed imagine that low language ability students are increasingly catered to in classroom discussions when they are more numerous or vice versa: that they are less taken into account when their numbers are small. In other words, classrooms that are diverse with respect to language ability might increase low language ability students’ opportunities to learn, as they may feature more accessible language use that would fall within low language ability students’ zones of proximal development more frequently.

A number of questions are spurred by the results reported here: Do teachers adapt their teaching strategies and educational priorities to the ability distribution present in the classroom? And to which degree can the inequalities in citizenship outcomes be impacted by classroom composition or teaching strategies in the long run? Further research may address these questions by using a combination of longitudinal and (quasi-)experimental designs. While our findings may be interpreted as a reason to distribute low language ability students across classes with sufficient variation in language ability (rather than concentrating them in one class), we warn against using these findings to base policy on, for two reasons. First, additional evidence must be gathered to establish the causal nature of the relationships suggested by our analyses. Secondly, changes in peer group composition can lead to unexpected outcomes, as the falling apart of artificially created social groups spurred by peer effects studies has illustrated (Carrell, Sacerdote, & West,

2013). Nevertheless, the presented findings can be used to argue that at the very least, teachers need to be aware of potential compositional effects and ways to respond to avoid further increases of inequalities in citizenship knowledge. Finally, our findings demonstrate that when policymakers or school officials consider making deliberate changes to classroom composition, they may affect not only academic achievement outcomes, but also citizenship outcomes differently for students of varying ability. Therefore, the possible effects of such changes in classroom composition need to be considered along multiple dimensions.