SAPIENZA
UNIVERSITÀ DI ROMA

Centro Interuniversitario per la Ricerca sulla Genesi e sullo Sviluppo delle Motivazioni Prosociali e Antisociali
CIRMPA

Doctorate In

Prosociality, Innovation And Collective Efficacy In Educational And Organizational Contexts

XXVI Course

Doctoral Dissertation

Civic engagement in adolescent students: the role of civic knowledge, efficacy beliefs, and an open classroom climate

PhD candidate: Sara Manganelli

Tutor: Prof. Fabio Lucidi

Dicembre 2013

INDICE

CHAPTER 1
General introduction

Introduction

Civic engagement in adolescence is a matter of primary importance: it positively stimulates adolescents' successful and healthy development (Lerner et al., 2009), it is the basis of civic and political involvement during adulthood (e.g., Eckstein, Noack, & Gniewosz, 2012; Flanagan & Sherrod, 1998), and it is a basic requirement for sustaining and developing communities and democratic societies (World Bank, 2007).

The literature on the field includes many conceptualizations and definitions for civic engagement, some of which differ substantially, especially in the context of youth development (e.g., Flanagan & Faison, 2001; Schulz, Fraillon, Ainley, Losito, & Kerr; 2008; Sherrod & Lauckhardt, 2009; Torney-Purta, Amadeo, & Andolina, 2010; Youniss et al., 2002). The lack of a shared conceptualization is also due to the fact that research on civic engagement is multidisciplinary (Sherrod, Torney-Purta, Flanagan, 2010). Researchers in political science, sociology, developmental psychology and social psychology have often focused on different aspects of civic engagement and have used various different terms to define it, including for example: civic commitment, social capital, citizenship, social action, democratic participation, and political engagement (Levine, 2007; Marzana, Marta, & Pozzi, 2012). Nevertheless the contrasting conceptualizations clearly have in common the idea that civic engagement is a complex and multifaceted phenomenon that is best described by using multiple components (e.g., Bobek, Zaff, Li, & Lerner, 2009; Higgings-D'Alessandro, 2010; Luengo Kanacri, Rosa, & Di Giunta, 2012; Sherrod et al., 2010; Zaff, Boyd, Li, Lerner, & Lerner, 2010).

Although the formulation of a common set of components is still debated, participation or expectations of participation in civic and political activities are widely regarded as core elements of civic engagement in youth (Sherrod, Flanagan, & Youniss, 2002). In this context, civic engagement has often been interpreted as electoral and formal political participation (e.g., voting and participating in political debates; Krampen, 2000; Obradovic & Masten, 2007; Walker,

2002), but several studies have suggested that newer and less formal forms of engagement (e.g., internet activism, signing petitions and protest activities) should be also taken into consideration, especially when focusing on adolescents (Beaumont, Thomas Ehrlich, & Torney-Purta, 2006; Flanagan & Faison, 2001; Haste & Hogan, 2006; Jugert, Eckstein, Noack, Kuhn, & Benbow, 2013; Marzana, Marta, & Pozzi, 2012; Metzger & Smetana, 2009). In addition, since adolescents have limited opportunities to actively participate in political life, at least until they come of age, research has often focused on their behavioural expectations or intensions to participate instead of their actual behaviours, since these are considered to be predictive of future engagement (Eckstein et al., 2012; Flanagan, Syvertsen, & Stout, 2007; Hooghe & Wilkenfeld, 2008; Schulz et al., 2010; Schmid, 2012; Torney-Purta, Lehmann, Oswald, & Schulz, 2001).

Civic beliefs, values and commitments take shape during adolescence (Erikson, 1968; Finlay, Wray-Lake & Flanagan, 2010; Niemi & Hepburn, 1995) and the civic experiences and involvement of adolescents can predict their continued civic engagement into adulthood (Jennings & Stoker, 2004). Adolescence is thus probably the ideal moment for promoting a civic engagement that will last throughout people's lives. Several studies have investigated the way in which civic engagement is developed in adolescence and the factors that can influence this process, but the overall picture is still quite fragmented (Torney-Purta, et al., 2010). The lack of a theoretical framework and of psychometrically strong measures consistently employed across studies has been noted in this field (Wilkenfeld, Lauckhardt, & Torney-Purta, 2010), and this explains the low level of consistency across studies. The variability between studies as regards the choice and definition of variables and the relationships between them is so great that the same variables have been regarded both as outcomes and as antecedents of adolescents' civic engagement. In addition, very few studies have employed measures of civic engagement that have been empirically tested and validated (Bobek et al., 2009; Flanagan et al., 2007; Luengo Kanacri et al., 2012; Schulz et al., 2011; Zaff et al., 2010), and those studies have not taken into consideration all the different forms of political and civic participation or expected participation,

or they have only considered each type of activity separately, and not as part of a multi-componential construct. Finally, most of the studies involved youths that were already of voting age, while fewer have investigated civic engagement in younger adolescents.

Two conceptual frameworks for research on civic engagement in youth have recently been developed (Schulz et al., 2008; Torney-Purta et al., 2010). The frameworks are similar and they have some of their theoretical background in common, because they were proposed by authors who were involved in the civic education international projects conducted by the International Association for the Evaluation of Education Achievement (IEA), namely: the International Civic and Citizenship education Study (ICCS; Schulz, Ainley, Fraillon, Kerr, & Losito, 2010) and the Civic Education study (CIVED; Torney-Purta et al.,2001). The theoretical background of both frameworks is mostly based on three theories: the social cognitive theory (Bandura, 1986) especially as regards the concept of self-efficacy (Bandura, 1997), the ecological development theory (Bronfenbrenner, 1988), and the situated learning theory (Lave& Wenger, 1991). The frameworks build upon these theories and propose a multidimensional conceptualization of civic engagement in youth that it is influenced by multi-level structures of contexts including the wider community, schools and classrooms, families, and the context of the individual. In each of these contexts some factors have been regarded as especially important for the development of civic engagement in adolescence: civic knowledge and efficacy beliefs referring to civic and political activities (in the individual context); the socio-economic status of the family in which the students are brought up (in the family context); the presence of a classroom climate open to discussion of political and social issues (in the school context). A number of studies have shown that each of these factors positively influences adolescents' civic engagement (e.g., Campbell, 2008; Hooghe & Dassonneville, 2011; Mahatmya & Lohman 2012; Solhaug, 2006; Verba Scholzman, & Brady, 1995).

Although many important steps have recently been made toward the understanding of how civic engagement in adolescence can be sustained and promoted, several aspects of the phenomenon still need to be clarified. The relationships between civic engagement and civic knowledge, efficacy beliefs, and open classroom climate have usually been investigated independently, without evaluating the influence of socio-economic background, and this has restricted our understanding of how these various factors might interact to promote adolescents' civic engagement. Much of the research has focused on specific forms of civic or political participation or expected participation (especially voting or formal political participation) in order to examine the effects of the above-mentioned factors, but it does not provide enough information on their effects on the overall engagement of adolescents, as it has not taken various newer forms of civic and political participation and activism into account. Finally, although several studies have pointed to significant gender differences in the field of civic engagement during adolescence (e.g., Bobek et al., 2009; Cicognani, Zani, Fournier, Gavray, & Born, 2012; Hooghe & Stolle, 2004; Metzger & Ferris, 2013; Metzger & Smetana, 2009), there is still little consensus about how these differences can be explained, and it is not clear whether the factors that influence civic engagement are the same or different for boys and for girls.

The present study

The present work contributes to the study of civic engagement by investigating which factors can facilitate its development during adolescence. Our aim was to examine the role of civic knowledge, efficacy beliefs, and an open classroom climate in accounting for the overall civic engagement of adolescent students, while also taking into consideration the influence of their socio-economic background. For this purpose, on the basis of the research literature and the conceptual frameworks developed for research on civic engagement in youth (Schulz et al., 2008; Torney-Purta et al., 2010), overall civic engagement was conceptualized as a multi-componential construct that includes adolescents' expectations to participate in formal political

activities as well as in informal and new forms of civic activities. The influence of civic knowledge, efficacy beliefs, an open classroom climate, and socio-economic background on adolescents' overall civic engagement was examined, considering the variables simultaneously and evaluating the various relationships between them. Gender differences regarding the effects of civic knowledge, efficacy beliefs and socio-economic background on civic engagement were also explored.

In order to study civic engagement during adolescence the present work focused on Italian students at the third year of lower secondary school. The data analysed came from a nationally representative sample of 3352 Italian students in the third year of lower secondary school who took part in one of the most ambitious international studies on civic education and engagement ever conducted: the IEA International Civic and Citizenship Study (ICCS 2009; Schulz et al., 2010). This study collected data from students, teachers and school principals from 38 countries during 2009. The purpose of the ICCS 2009 was to investigate the ways in which young people are prepared and able to undertake their roles as citizens.

The current work focuses on Italian students because the study of factors promoting adolescents' civic and political engagement has a particular relevance and value in Italy. In fact, national statistical surveys and studies have revealed widespread disaffection and low levels of participation and interest on behalf of Italian adolescents (Eurispes, 2009; ISTAT, 2010; Vecchione & Mebane, 2006). At the same time, despite a widespread sense of mistrust and diffidence (Marta & Cristini, 2012), a slight shift of young people toward alternative forms of civic action has been observed (De Luca, 2007; Vecchione & Mebane, 2006). Several reforms have recently been introduced in Italy regarding the teaching of civic and citizenship education in schools (e.g., Terrinoni & Stringher, 2013), and a number of experimental projects have been implemented in schools with the aim of introducing innovative teaching strategies and promoting the active participation of students (e.g., Tosolini, Brunello, Rosini, 2011). How such reforms

should be implemented in schools is still a matter of considerable debate, and indications concerning teaching strategies suitable for the development of civic engagement in youth seem to be necessary (Losito, 2009). Nevertheless, very few studies have been conducted on the civic engagement of Italian underage adolescents.

The present work consists of three separate but related studies.

After reviewing the literature on the conceptualization of civic engagement in youth, the first study (chapter 2) proposes and empirically tests a multi-componential construct of civic engagement based on adolescents' expectations to take part in four forms of civic and political activities: electoral participation, participation in political activities, informal political participation, and participation in legal protests. Addressing the need for psychometrically strong measures in the research on civic engagement in youth, the study uses confirmatory factor analysis to test the measurement model of the civic engagement construct based on items developed by international experts. In order to ensure that the proposed construct can be used to adequately assess and compare the civic engagement of boys and girls, the measurement invariance of the construct across gender was also verified. Contrary to other constructs of civic engagement, the construct tested in our first study evaluates the overall participation expectations of the adolescents, taking various forms of formal and informal participation into consideration simultaneously.

Using the construct developed in the first study, the second study (chapter 3) aims to examine the role of civic knowledge and efficacy beliefs as factors that can promote adolescents' overall civic engagement, also taking into consideration the influences of socio-economic background and gender differences. To achieve this goal, on the basis of the theoretical frameworks (Schulz et al., 2008; Torney-Purta et al., 2010) and the research literature, a model of civic engagement was developed and tested by a Structural Equation Modelling (SEM) analysis. In addition, a series of multi-group analysis were conducted in order to test the

invariance of the model between boys and girls, thus exploring possible gender differences in the relationships between the variables considered in the study. This is the first study that has concurrently examined the influences of civic knowledge, efficacy beliefs and socio-economic background on adolescents' overall civic engagement.

Following on from the results of the second study, the third study (chapter 4) aims to evaluate the influences of an open classroom climate on students' overall civic engagement and to investigate whether a mediation process centred on students' efficacy beliefs can explain these influences. The relationships between these variables were examined while controlling for possible confounding effects of socio-economic background. The study employed Multilevel SEM techniques in order to evaluate the relationships between the variables both at the level of the individual student and at the level of the whole class. To date, no study has ever employed this analytic approach in order to investigate factors associated with students' civic engagement.

References

Bandura, A. (1986). *Social Foundations of Thought and Action: A Social Cognitive Theory*. Englewood Cliffs, NJ: Prentice-Hall.

Bandura, A. (1997). *Self efficacy: the exercise of control*. New York: Freeman.

Beaumont, E., Thomas Ehrlich, A.C., & Torney-Purta, J. (2006). Promoting political competence and engagement in college students: an empirical study. *Journal of political science education, 2*, 249-270.

Bobek, D., Zaff, J., Li, Y., & Lerner, R.M. (2009). Cognitive, emotional, and behavioral components of civic action: Towards an integrated measure of civic engagement. *Journal of Applied Developmental Psychology, 30*, 615-627.

Bronfenbrenner, U. (1989). *Ecological systems theory*. In R. Vasta (Ed.), Annals of child development: vol. 6. Six theories of child development: revised formulations and current issues. Greenwich, CT: JAI Press.

Campbell, D.E. (2008). Voice in the classroom: How an open classroom climate fosters political engagement among adolescents. *Political Behavior, 30*, 437-454.

Cicognani, E., Zani, B., Fournier, B., Gavray, C., & Born, M. (2012). Gender differences in youths' political engagement and participation. The role of parents and of adolescents' social and civic participation. *Journal of Adolescence, 35*, 561–576.

Eckstein, K., Noack, P., & Gniewosz, B. (2012). Attitudes toward political engagement and willingness to participate in politics: Trajectories throughout adolescence. *Journal of Adolescence, 35*, 485–495

Erikson, E. (1968). *Identity: Youth and crisis*. New York: Norton.

Eurispes. (2009). *10° Rapporto nazionale sulla condizione dell'infanzia e dell'adolescenza* [10th National report report about the condition of childhood and adolescence]. Rome, Italy: Eurispes & Telefono Azzurro.

De Luca, D. (2007). Giovani divisi fuori e dentro la politica [Youth divided outside and in politics]. In C. Buzzi, A. Cavalli, & A. de Lillo (Eds.), *Rapporto giovani* [Youth report] (pp. 289–299). Bologna, Italy: il Mulino.

Finlay, A., Wray-Lake, L., & Flanagan, C. (2010). Civic engagement during the transition to adulthood: developmental opportunities and social policies at a critical juncture. In R.M. Lerner & L. Steinberg (Eds.), *Handbook of adolescent psychology* (pp. 721-746). Hoboken, NJ: John Wiley & Sons.

Flanagan, C.A., & Faison, N. (2001). Youth civic development: implications of research for social policy and rrograms. *Social Policy Report, 15*(1), 1-16.

Flanagan, C.A., & Sherrod, L.R. (1998). Youth political development: an introduction. *Journal of Social Issues, 54*(3), 447-456.

Flanagan, C.A., Syvertsen, A.K., & Stout, M.D. (2007). Civic Measurement Models: Tapping Adolescents' Civic Engagement. *CIRCLE Working Paper*, 55.

Haste, A., & Hogan, A. (2006). Beyond conventional civic participation, beyond the moral-political divide: young people and contemporary debates about citizenship. *Journal of Moral Education, 35*(4), 473–493.

Higgings-D'Alessandro, A. (2010). The transdisciplinary nature of citizenship and civic/political engagement evaluation. In L. R. Sherrod, J. Torney-Purta, C. A. Flanagan (Eds.), *Handbook of research on civic engagement in youth*. Hoboken, NJ: John Wiley & Sons Inc.

Hooghe, M., & Stolle, D. (2004). Good girls go to the polling booth, bad boys go everywhere: bender differences in anticipated political participation among American fourteen-year-olds. *Women & Politics, 26*(3/4), 1-23.

Hooghe, M., & Wilkendfeld, B. (2008). The stability of political attitudes and behaviors across adolescence and early adulthood: a comparison of survey data on adolescents and young adults in eight countries. *Journal of Youth Adolescence, 37*(2), 155–167

ISTAT (2010). La partecipazione politica: differenze di genere e territoriali. Rome, Italy: Author.

Jennings, M. K., & Stoker, L. (2004). Social trust and civic engagement across time and generations. *Acta Politica, 39*, 342–379.

Jugert, P., Eckstein, K., Noack, P., Kuhn, A., & Benbow A. (2013). Offline and online civic engagement among adolescents and young adults from three ethnic groups. *Journal of Youth and Adolescence, 42*(1), 123-135.

Krampen, G. (2000). Transition of adolescent political action orientation to voting behavior in early adulthood in view of a social-cognitive action theory model of personality. *Political Psychology, 21*(2), 277-297

Lave, L., & Wenger, E. (1991). *Situated learning: legitimate peripheral participation*. Cambridge: Cambridge University Press.

Lerner, J. V., Phelps, E., Forman, Y., & Bowers, E. P. (2009). Positive youth development. In R. M. Lerner, & L. Steinberg (Eds.), *Handbook of adolescent psychology* (3rd ed.) Hoboken, NJ: Wiley.

Levine, P. (2007). *The future of democracy: developing the next generation of citizens*. Boston: University press of New England.

Mahatmya, D., & Lohman, B.J. (2012). Predictors and pathways to civic involvement in emerging adulthood: neighbourhood, family, and school influences. *Journal of Youth and Adolescence, 41*(9), 1168–1183.

Marzana, D., Marta, E., & Pozzi, M. (2012). Social action in young adults: Voluntary and political engagement. *Journal of adolescence, 35*, 497-507.

Losito, B. (2009). La costruzione delle competenze di cittadinanza a scuola: non basta una materia [Building citizenship competencies in schools: One discipline is not enough]. *Paper presented at the seminar Giornate di studio su "Cittadinanza e Costituzione"* [Study sessions on citizenship and the constitution], Turin, Italy, October 6–7, 2009

Luengo Kanacri, B.P., Rosa, V., & Di Giunta L. (2012): The mediational role of Values in linking personality yraits to civic engagement in Italian youth. *Journal of Prevention & Intervention in the Community, 40*(1), 8-21.

Marta, E., & Cristini, F. (2012). Commitment or Disaffection? Framing the Forms, Meanings, and Predictors of Youth Civic Engagement in Italy. *Journal of Prevention & Intervention in the Community, 40*(1), 1-7.

Metzger, A., & Ferris, K. (2013). Adolescents' domain-specific judgments about different forms of civic involvement: Variations by age and gender. *Journal of Adolescence, 36*, 529–538.

Metzger, A. ,& Smetana ,J.G. (2009). Adolescent Civic and Political Engagement: Associations Between Domain-Specific Judgments and Behavior. *Child Development, 80 (2)*, 433–441.

Niemi, R. G., & Hepburn, M. A. (1995). The rebirth of political socialization. *Perspectives on political science, 24*(1),7-16.

Obradovic, J., & Masten, A.S. (2007). Developmental antecedents of young adult civic engagement. *Applied Developmental Science, 11*(1), 2-19.

Schmid, C. (2012). The value "social responsibility" as a motivating factor for adolescents' readiness to participate in different types of political actions, and its socialization in parent and peer contexts. *Journal of Adolescence 35*, 533–547

Schulz, W., Ainley, J., Fraillon, J., Kerr, D., & Losito, B. (2010). *ICCS 2009 International Report: Civic knowledge, attitudes, and engagement among lower secondary school students in 38 countries*. Amsterdam, The Netherlands: International Association for the Evaluation of Educational Achievement (IEA).

Schulz, W., Fraillon, J., Ainley, J., Losito, B., & Kerr, D. (2008). *International Civic and Citizenship Education Study: Assessment framework*. Amsterdam, The Netherlands: International Association for the Evaluation of Educational Achievement (IEA).

Sherrod, L.R, Torney-Purta, J., & Flanagan, C. (2010). Research on the development of citizenship: a field comes of age. In L. R. Sherrod, J. Torney-Purta, C. A. Flanagan (Eds.), *Handbook of research on civic engagement in youth*. Hoboken, NJ: John Wiley & Sons Inc.

Sherrod, L.R., Flanagan, C., & Youniss, J. (2002). Dimensions of citizenship and opportunities for youth development: The What, Why, When, Where, and Who of Citizenship Development. *Applied Developmental Science, 6*(4), 264–272.

Sherrod, L. R., & Lauckhardt, J. (2009). *The development of citizenship*. In R.M.Lerner & L. Steinberg (Eds.) Handbook of adolescent psychology. Hoboken, NJ: John Wiley & Sons Inc

Solhaug, T. (2006). Knowledge and self-efficacy as predictors of political participation and civic attitudes. *Policy Futures in Education, 4*(3), 265-278.

Terrinoni, G., & Stringher, C. (2013). Italy. In J. Ainley, W. Schulz, T. Friedman (Eds.) *ICCS 2009 Encyclopedia. Approaches to civic and citizenship education around the world*. Amsterdam, The Netherlands: International Association for the Evaluation of Educational Achievement (IEA).

Torney-Purta, J., Amadeo, J.A., & Andolina, M.W. (2010). A conceptual framework and multimethod approach for research on political socialization and civic engagement. In L. R. Sherrod, J. Torney-Purta, C. A. Flanagan (Eds.) *Handbook of research on civic engagement in youth*. Hoboken, NJ: John Wiley & Sons Inc.

Torney-Purta, J., Lehmann, R., Oswald, H., & Schulz, W. (2001). *Citizenship and education in twenty eight countries*. Amsterdam: International Association for the Evaluation of Educational Achievement (IEA).

Tosolini, A., Brunello, P., & Rosini B. (2011). *Cittadinanza e Costituzione* [Citizenship and Constitution]. Rome, Italy: La tecnica della scuola.

Vecchione, M. & Mebane, M. E. (2006). Il grande freddo. La disaffezione giovanile verso la politica convenzionale. *Psicologia Contemporanea, 198*, 71-73.

Verba, S., Scholzman, K.L., & Brady, H. (1995). *Voice and equality: civic voluntarism in American politics*. Cambridege, MA: Harvard University Press.

Walker, T. (2002). Service as a pathway to political participation: what research tells us. *Applied Developmental Science, 6*(4), 183–188.

Wilkenfeld, B., Lauckhardt, J. & Torney-Purta J. (2010). The relation between developmental theory and measures of civic engagement in research on adolescents. In L. R. Sherrod, J. Torney-Purta, C. A. Flanagan (Eds.) *Handbook of research on civic engagement in youth*. Hoboken, NJ: John Wiley & Sons Inc.

World Bank. (2007). *World development report 2007: Development and the next generation*. Washington, DC: Author

Youniss, J., Bales, S., Christmas-Best, V., Diversi, M., McLaughlin, M., & Silbereisen, R. (2002). Youth civic engagement in the twenty-first century. *Journal of Research on Adolescence, 12*(1), 121-148.

Zaff, J., Boyd, M., Li, Y., Lerner, J.V., & Lerner, R.M. (2010). Active and engaged citizenship: multi-group and longitudinal factorial analysis of an integrated construct of civic engagement. *Journal of Youth and Adolescence, 39*(7), 736–750.

CHAPTER 2

Expectations to participate in civic and political activities: testing a construct for the study of civic engagement in adolescence

Abstract

The study of civic engagement during adolescence has important theoretical and applied relevance. Nevertheless, very few measures of civic engagement in adolescence have been empirically tested and are consistent with the indications in the literature. Building upon theoretical frameworks and the results of previous research, the present study proposes and empirically tests a multi-componential construct of civic engagement focused on adolescents' expectations to take part in four forms of civic and political activities: electoral and informal political participation, participation in political activities and in legal protest. Using data from the International Civic and Citizenship education Study, collected from 3,352 eight grade Italian students, we assessed the factorial structure and the measurement invariance across gender of this construct by the means of Confirmatory Factor Analysis and multi-group analysis. The results confirmed the higher order factor structure proposed for the civic engagement measurement model and supported its strong invariance across gender. This study thus provides a reliable and practical instrument for assessing adolescents' overall civic engagement and for ascertaining gender differences within this field.

Keywords: civic engagement; confirmatory factor analysis; cross-gender measurement invariance; higher order measurement model; IEA ICCS 2009.

Introduction

Civic engagement in youth is a vital requirement for sustaining and developing a democratic society. When young people are actively engaged in improving their communities and their country, their own development is enhanced and civil society obtains various benefit (Lerner et al., 2005). Adolescents are capable of reasoning about their civic and political world (Metzger & Smetana, 2010), and it is during adolescence that youth think about and try to anticipate their lives as adults, while attempting to understand who they are and how they relate to broader society (Yates and Youniss, 1998). In fact, civic engagement during adolescence has been regarded as the foundation of civic and political involvement in adulthood (e.g., Eckstein, Noack, & Gniewosz, 2012; Flanagan & Sherrod, 1998).

In the literature there is an on-going debate about what constitutes civic engagement (e.g., Althof & Berkowitz, 2006; Youniss, et al., 2002; Sherrod, Flanagan, & Youniss, 2002), and several different conceptualizations have been proposed regarding civic engagement in adolescents (Flanagan & Faison, 2001; Sherrod & Lauckhardt, 2009; Schulz, Fraillon, Ainley,

Losito, & Kerr; 2008; Torney-Purta, Amadeo, & Andolina, 2010; Youniss et al., 2002). There is extensive agreement on the fact that civic engagement is a complex and multifaceted phenomenon that is best described by using multiple components (Bobek, Zaff, Li, & Lerner, 2009; Ekman & Amnå, 2012; Higgings-D'Alessandro, 2010; Luengo Kanacri, Rosa, & Di Giunta, 2012; Sherrod, Amadeo, & Andolina, 2010; Zaff, Boyd, Li, Lerner, & Lerner, 2010), but there is not yet a shared or generally agreed definition of these components. In addition, although several theoretical definitions have been proposed for adolescents' civic engagement and research on this topic has increased in recent years, few studies (Bobek et al., 2009; Luengo Kanacri et al, 2012; Zaff et al., 2010) have so far formulated and empirically tested an operationalization of this construct. In fact, there seems to be a lack of psychometrically strong measures in studies about civic engagement in youth (Wilkenfeld, Lauckhardt, & Torney-Purta, 2010).

The present study proposes a multi-componential construct of civic engagement and empirically tests a measurement model of this construct on a representative sample of eighth grade Italian students. The civic engagement construct is based on adolescents' expectations to take part in various forms of civic and political activities, ranging from voting to participation in protest activities and Internet activism. This construct and its measurement model are based on the literature and the theoretical frameworks that will be described below, and they aim to provide an instrument that can make up for some of the shortcomings of previous studies on adolescents' civic engagement. Since gender differences have frequently been detected in the field of civic engagement (Cicognani, Zani, Fournier, Gavray, & Born, 2012; Hooghe & Stolle, 2004; Jahromi, Crocetti, & Buchanan, 2012; Metzger & Ferris, 2013; Schulz, Ainley, Fraillon, Kerr, & Losito, 2010) the present study also investigates also the measurement invariance of the civic engagement construct across boys and girls.

The first part of this paper reviews the literature about the conceptualization and the assessment of civic engagement in adolescence. The aims, methods, and results of our empirical study are then described. Finally, we discuss our main results also examining their implications for further research in the field of civic engagement during adolescence.

Defining civic engagement in adolescents

Political participation has been widely regarded as a core element of civic engagement (Sherrod et al., 2002). Verba, Schlozman, and Brady (1995) for example stated that "democracy is unthinkable without the ability of citizens to participate freely in the governing process" (p. 1). Political participation has been mostly interpreted as electoral participation (i.e. voting), but also keeping informed about electoral issues, participating in political discussions, and being active in political campaigns (e.g., Krampen, 2000, Obradovic & Masten, 2007; Walker, 2002). Several authors have argued that also less formal modes of participation need to be taken into account (e.g., membership in civic organizations and internet activism), especially when focusing on young people who cannot be engaged in activities such as voting until adulthood (Beaumont, Thomas Ehrlich, Torney-Purta, 2006; Flanagan & Faison 2001; Haste & Hogan 2006; Jugert, Eckstein, Noack, Kuhn, & Benbow, 2013; Marzana, Marta, & Pozzi, 2012; Metzger & Smetana 2009). Haste and Hogan (2006) pointed out that although "voting is central because it is the cornerstone of representative democracy" it is also "a low-key, infrequent event for most people, at least in established democracies". Attention has also been given to various other ways of making one's voice heard and influencing legislation, through individual or, more usually, collective action (Beaumont et al., 2006; Haste & Hogan, 2006; Schulz et al., 2008). Behaving civilly and adhering to the rule of law are certainly aspects of citizenship, but a society also depends on citizens who at times object to policies or even disobey unjust laws.

The proposal to extend the definition of civic engagement beyond formal political participation is also supported by the fact that "new" forms of civic participation, such as

consumer activism and freedom of expression on Internet, have frequently been included in the descriptions provided by young people themselves on what constitutes civic engagement (Andolina, Jenkins, Keeter, & Zukin, 2002). Various studies have shown that the appeal of traditional modes of civic engagement has weakened and that young citizens prefer to express their opinions in more informal ways (Amna, 2012).

Given the importance attributed to the various different forms of civic and political participation in the conceptualization of civic engagement, as well as the limited opportunities of adolescents to participate as active citizens until they come of age, researchers have often focused on their expectations or intentions to participate instead of their actual behaviours, considering them as predictive of future engagement (Eckstein et al., 2012; Flanagan, Syvertsen, & Stout, 2007; Hooghe & Wilkenfeld, 2008; Schmid, 2012; Schulz et al., 2010; Torney-Purta, Lehmann, Oswald, & Schulz, 2001). This approach is based on the vast number of studies that have considered behavioural intensions and expectations as proxy of behaviours. The theory of reasoned action (Fishbein & Ajzen, 1975) defined intentions as the cognitive representation of a person's readiness to perform a given behaviour, and regarded behavioural expectations as a possible indicator for assessing intentions (Fishbein & Ajzen, 2010). Other authors (e.g., Warshaw & Davis, 1985) differentiated the two constructs and defined behavioural expectations as the individual's perceived likelihood that he or she actually will perform some future behaviour. Behavioural intentions and expectations have been both regarded as immediate antecedents of behaviour and its best predictors, and there is much evidence to show that their efficacy in predicting behaviour is very similar (Fishbein & Ajzen, 2010). In the field of civic and political engagement, a number of studies have investigated the relationship between intentions or expectations to vote and voting behaviour and have shown that they correspond very closely (e.g., Fishbein & Ajzen, 1981; Granberg & Holmberg, 1990). The very few studies that have investigated whether expected participation in adolescence can effectively predict actual participation during adulthood have had mixed results (e.g., Hooghe & Wilkenfeld, 2008),

but several longitudinal studies have found a high stability and persistence in political attitudes, ideology, and participation over people's lifetimes (e.g., Jennings & Stoker, 2004).

The more inclusive approaches have proposed to consider within the definition of civic engagement also participation in actions such as volunteerism and community service (e.g., Flanagan, 2004; Marzana, et al., 2012; Youniss et al., 2002). These activities have been often regarded as a way for young people to get involved and have a role as members of a community, moving beyond their own self-interest and being committed to the well-being of some larger group of which they are members. This conceptualization is supported by empirical data showing connections and continuities between participation in community services during youth and civic engagement in adulthood (e.g., Youniss, McLellan & Yates, 1997). However, some authors have emphasized that civic engagement in community service and youth organizations is often restricted to volunteerism and individual helping without extending to wider forms of political involvement, and that young people usually see their volunteer work as a valid alternative to politics (e.g., Galston, 2001; Walker, 2002). Some findings also suggest that political participation (i.e. voting) and volunteerism are quite distinct types of civic engagement that are not predictors of one another and therefore should be studied separately (e.g., Luengo et al., 2012; Obradovic & Masten, 2007; Walker, 2002). Recent studies also showed that the participation in service and volunteering activities is very low during adolescence (Schulz et al., 2010; Zaff et al., 2012).

Various authors have argued that focusing only on adolescents' civic behaviours or behavioural expectations is not enough, as civic skills, beliefs and attitudes are also crucial aspects of civic engagement. Flanagan and Faison (2001) distinguished three aspects of civic engagement: civic literacy, civic skills, and civic attachment. Sherrod and Lauckhardt (2009) proposed that civic engagement includes political involvement or civic activities, concern for others and tolerance, allegiance, attachment, or membership. Others (Bobek at al., 2009; Zaff et

al., 2010) developed an integrated civic construct that included civic behaviours, civic skills, civic connections, and civic commitment. The multidimensional conceptual model of civic engagement recently proposed by Torney-Purta and colleagues (2010) included: civic participation (including both formal and informal forms of participation), political understanding, attitudes and dispositions (especially agency/efficacy). Similarly, in the conceptual framework developed in the context of the IEA ICCS 2009 study, civic engagement is defined as "the attitudes, behaviours, and behavioural intentions that relate to more general civic participation as well as manifest political participation" (Schulz et al., 2010, p.115). All of these conceptualizations vary not only in the choice of components to be included but also in the definition of the relationships between these components. While in some cases the various components have been integrated in a single construct (e.g., Bobek et al., 2009; Zaff et al., 2010), in others they have been differentiated into outcomes and antecedents or preconditions for other aspects of civic engagement (e.g., Schulz et al., 2010). More often however, the relationships between the multiple components of civic engagement have not been explicitly defined.

Building upon the literature concerning the conceptualization of civic engagement the present study proposes a multi-componential of this construct in adolescents, based on their expectations to participate in four different forms of civic and political activities: electoral and informal political participation, as well as participation in political activities and in legal protest. Consistently with previous studies (e.g., Eckstein et al., 2012; Hooghe & Wilkenfeld, 2008; Schmid, 2012; Schulz et al., 2010; Torney-Purta et al., 2001), behavioural expectations were chosen instead of actual behaviours, because they are best suited to adolescents who have limited opportunities for active participation until they come of age. The construct focused on participation in civic and political activities because they have been regarded as a core element of civic engagement in youth. It also adhered to the suggestions in the literature to go beyond more conventional forms of political participation (i.e., voting) and to include new forms of

participation (e.g., consumer and internet activism) and participation in protest activities. Although multi-componential, the construct did not include other aspects (e.g., volunteerism, civic skills and knowledge, efficacy beliefs) apart from expected civic and political participation. We chose not to include volunteerism because previous studies have shown that volunteerism and political participation are distinct types of civic engagement (e.g., Luengo et al., 2012; Obradovic & Masten, 2007; Walker, 2002). We did not include constructs such as knowledge, skills, efficacy beliefs, and attitudes because the relationships between these constructs and expectations to participate in civic and political activities have not yet been sufficiently clarified. Instead, these constructs have been often considered as precondition for participation (e.g., Dudley & Gitelson, 2002; Krampen, 2000) and proximal determinants of behaviours or intended behaviours (e.g., Bandura, 1997), and they have also been found to follow different developmental trajectories during adolescence (Zaff et al., 2012).

Measuring civic engagement

Within the on-going debate on the definition of adolescents' civic engagement, a lack of psychometrically strong measures consistently employed across studies has been noticed (e.g., Wilkenfeld et al., 2010). As a matter of fact, many research results have been based on operationalizations designed specifically for one particular study, which were not empirically tested and did not provide information about their reliability and/or validity.

Civic engagement in youth has often been measured using the frequency of participation in civic and political activities (e.g., Albanesi, Cicognani, & Zani, 2007; Krampen, 2000; Pasek, Feldman, Romer, & Jamieson, 2008) and/or volunteering activities (e.g., Mahatmya & Lohman, 2012; Omoto & Snyder, 1995). Because of the age of the young people involved, several studies have measured the behavioral intentions or expectations regarding political and civic participation (i.e., likelihood of future participation in voting or becoming a party member) instead of actual behaviours (Beaumont et al., 2006; Flanagan et al., 2007; Solhaug, 2006). Some

studies have considered other elements besides behaviors or behavioral intentions. For example Metz and Youniss (2003) assessed civic engagement by the means of questionnaires regarding political interest (e.g., how often students discussed politics with their parents, read about politics, or were involved in discussions on democracy or civic participation at school) and intended future civic participation (e.g., the likelihood that students would adhere to a boycott campaign or do volunteer service).

To the best of our knowledge, very few studies have provided empirical evidence about the factor structure and dimensionality of the scales developed to measure civic engagement in youth. Building on the more inclusive conceptualizations of civic engagement, Bobek and collegues (2009) and Zaff and collegues (2010) developed and tested a measure which integrated in a single construct behavioural, cognitive, and socio-emotional components of civic engagement (civic duty, civic skills, participation) into a single construct, but did not take into consideration formal political participation and/or participation in protest activities. Luengo Kanacri and collegues (2012) developed a scale assessing young people's membership in different kind of associations. This scale had a bi-dimensional structure, with one factor related to civic associationism and the other related to political associationism. Flanagan and collegues (2007) evaluated the measurement properties of various scales and items tapping specific aspects of civic engagement, such as expectations to engage in electoral politics, endorsement of special interest groups, and expectations of unconventional political engagement.

The questionnaires developed for the IEA CIVED (Torney-Purta et al., 2001) and more recently for the IEA ICCS study (Schulz et al., 2010) were a landmark in the research on civic engagement, because they were based upon a theoretical framework and were validated internationally (Schulz, 2009; Schulz & Brese, 2008). These questionnaires included several scales assessing adolescents' expectations to take part in various forms of civic and political activities and a number of other constructs associated with civic engagement in youth. However,

these various aspects were measured separately and thus an overall measure of civic engagement is not available.

Several studies have drawn attention to significant gender differences in the field of civic engagement during adolescence (e.g., Bobek et al., 2009; Cicognani et al., 2012; Metzger & Ferris, 2013; Schulz et al., 2010) and it seems that the gender gap especially affects the modality of civic participation, with girls and boys being drawn towards different kinds of civic activities (Hooghe & Stolle, 2004; Metzger & Smetana, 2009). Nevertheless, very few studies (e.g., Zaff et al., 2010) have examined the measurement invariance across gender of the instruments used to assess civic engagement during adolescence. This is however a crucial assessment because it allows the interpretation of whether the observed differences exist at the construct level (i.e., true differences between boys and girls in civic engagement) or at the measurement level (i.e., differences in the psychometric properties of the measure).

The present study

The literature reviewed in the previous sections almost unanimously considers civic engagement in youth as a multifaceted phenomenon that can best be described using multiple components. The definition of the components to be included is still quite controversial, but the different conceptualizations agree on at least two points: 1) participation or expectations to participate in civic and political activities are essential aspects of civic engagement; 2) participation and intentions to participate should refer to electoral or formal political activities but also to new or informal forms of activism and protest activities. A few construct of civic engagement have been empirically tested and validated (Bobek et al., 2009; Flanagan et al., 2007; Luengo Kanacri et al., 2012; Schulz et al., 2011; Torney-Purta et al., 2011; Zaff et al., 2010), but they have either not included participation in electoral, political or protest activities or

have considered each form of participation separately. In addition, the equivalence across gender of the civic engagement measures has rarely been verified (Zaff et al., 2010).

The present study proposes and empirically tests a multi-componential construct of civic engagement in adolescence based on expectations to participate in different forms of civic and political activities. To this end, a measurement model of civic engagement was developed and tested, and the invariance of the model across gender was examined. As mentioned above, the rationale of the construct is based on the literature on civic engagement during adolescence and on the results of previous studies. Consistently, in the measurement model civic engagement is defined as a factor underlying adolescents' expectations to participate in four different forms of activities: electoral participation, informal political participation, participation in political activities and participation in legal protest.

The construct proposed in the present study aims to address the need for a psychometrically strong measure in the research on civic engagement in youth in several ways. Firstly, it employed four of the questionnaire scales developed for the IEA ICCS 2009 and tested internationally. Secondly, the hypothesized measurement model was empirically tested on a large representative sample of eighth grade Italian students. Thirdly, the measurement invariance across gender was verified in order to ensure that the assessment of civic engagement was not biased by sex and therefore could be used to assess both sexes.

Method

Participants and procedure

The data analysed in the present study came from 3,352 Italian eighth grade students who took part in the IEA ICCS 2009 study (Schulz et al., 2010). This project aimed to investigate the extent to which young people are prepared to undertake their roles as citizens. The average age of the students' was 13.81 years (SD = 0.50) and 51.9% of the students were male. Participating

students were sampled using the stratified two-stage probability design defined by the IEA (Schulz, Ainley, & Fraillon, 2011). In the first stage, 172 schools were sampled from the population of Italian lower secondary schools with a probability proportional to their size. In the second stage, one full class of eighth graders (corresponding to the third year of lower secondary school in Italy) was randomly selected in each school, and all the students in each of these classes were assessed for the survey. The population coverage was 100% and students' participation rate was 96.6% (Schulz et al., 2011). Due to the complex structure of the student sample, appropriate sampling weights were applied in the data analysis so as to accommodate for unequal selection probabilities (Brese et al., 2011; Schulz et al., 2011).

Each participating school gave its informed consent and all the participating students were asked to complete the Student Questionnaire according to the IEA ICCS assessment protocol that is described in detail in the Technical Report (Schulz et al., 2011). During the first part of an ordinary school day the questionnaire was administered in the classrooms by teachers trained by the researchers. The test administrator was not allowed to be a teacher of the sampled class. The participants were given a brief, standardized introduction, which informed them of the purpose of the study, assured them as regards its confidentiality, and give them instructions on how to complete the questionnaire.

Measures

The measurement model of civic engagement was estimated by means of items that comprised four of the scales in the IEA ICCS 2009 Student Questionnaire. A complete description of how these scales were developed is available in the IEA ICCS Technical Report (Schulz et al., 2011) and in Schulz (2009). The development of the ICCS instruments was basically conducted in three phases. The first phase consisted on the drafting of the questionnaire items on the basis of the ICCS assessment framework (Schulz et al., 2008) and it also included small pilot studies in six countries as well as extensive consultation with the national project

coordinators and expert consultants. The second phase consisted of the implementation of an international field trial in all participating countries and the analysis of the data collected (Schulz, 2009; Schulz & Brese, 2008). The third phase involved a final revision of the instruments based on the field trial results and further feedback from national centers and expert consultants. Before the administration of the questionnaire in Italy the final versions of the instruments were adapted and translated into Italian following a stringent international verification process that included a thorough review of the adaptations, translation, and layout (a complete description of the process is available in Schulz et al., 2011). The translation was conducted by professional translators who had excellent knowledge of English and Italian, knowledge and experience of the Italian cultural context and experience in translating texts on social and/or political issues.

The measurement model of civic engagement tested in the present study was based on the four IEA ICCS 2009 scales measuring students' behavioural expectations regarding civic and political participation in the near future or when they would become adults (Schulz et al., 2011). Italian and English versions of the scales are reported in the Appendix. In each of the scales, students were asked to rate the probability with which they expected to take part in different activities, using a 4-point response scale (ranging from "I will certainly do this" to "I will certainly not do this").

Adolescents' expected electoral participation was measured using three items in which students rated the probability with which, as adults, they expected to vote in local and national elections and to get information about candidates before voting.

Four items were used to measure adolescents' expected participation in political activities. Students rated the probability with which, as adults, they expected to take an active part in various different kinds of political activities: joining a political party, helping a candidate

or a party during election campaign, joining a trade union, and standing as a candidate in local elections.

Adolescents' expected informal political participation was measured using four items, which asked students how likely they were to: write to a newspaper about political and social issues, join an organization for a political or social cause, contribute to an online discussion forum about social and political issues, and talk to others about their views on political and social issues.

Finally, six items measured adolescents' expectations to participate in legal protest. Students rated the probability with which they expected to take part in different forms of protest: collecting signatures for a petition, taking part in a peaceful march or rally, choosing not to buy certain products, writing a letter to a newspaper, wearing a badge or t-shirt expressing their opinion, and contacting an elected representative.

The four scales showed good internal consistency with Cronbach's alpha values ranging from 0.75 to 0.82 in both the Italian and in the international sample and they proved to be substantially correlated with each other (Schulz et al, 2011). The dimensionality of each of the four scales (a single latent factor in each scale) was tested internationally during the development of the ICCS instruments, using data from calibration samples that ensured equal representations of countries in the analyses (Schulz et al., 2011).

Data analysis

Confirmatory Factor Analysis (CFA) was employed to empirically test the civic engagement measurement model. The process of analysis was carried out using the MPlus 6.0 software (Muthén & Muthén, 2006) with the Robust Maximum Likelihood (MLR) estimator, which has proved to be suitable for data with sampling weights (Asparouhov, 2005). The special MPLUS analytical approach "TYPE=COMPLEX" was used, because it allowed us to take into consideration the hierarchical structure of the data analyzed in the study (students nested within

classes) and to compute correct estimates and test statistics (Muthén and Muthén, 2006). Prior to performing the main analysis, the small amount of missing data (approximately 0.2% – 2.6%) was handled by means of the expectation-maximization (EM) procedure to impute missing values of IBM SPPS 19.0 statistical package.

In the first stage of analysis, a CFA was performed in order to examine the factorial structure of the postulated model of civic engagement. We posited a higher order measurement model, consisting of one second-order factor (Civic Engagement), four first-order factors (expected electoral participation, expected participation in political activities, expected informal political participation, and expected participation in legal protest), and 17 manifest indicators (see Figure 1).

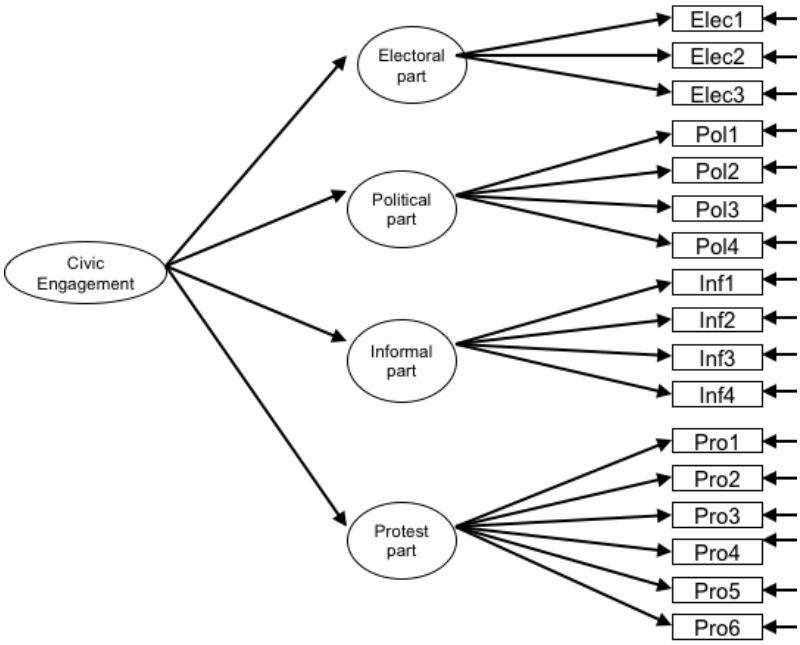

Figure 1. Measurement model for the higher order factor model of the civic engagement construct

The hypothesized model was specified in the following way: (a) each item would have a non-zero loading on the first-order factor that it was designed to measure and a zero loading on each of the other first-order factors; (b) error terms associated with each item would be

uncorrelated; and (c) all covariance between each pair of first-order factors would be explained by a higher order factor. In order to identify the scale of the measurement model the first indicator of each first-order construct was fixed at a value of 1 (marker variable). We also explored the use of alternative marker variables and found no differences across solutions. The same strategy was used with the second-order factor loadings. The model fit was assessed using statistical tests and multiple fit indices. The MLR chi-squared test statistic was employed since MLR was used as estimator (Muthén & Muthén, 2006). Considering the fact that this test is not deemed to be completely reliable with large samples (Hu & Bentler, 1995), the following fit indices were also used: the Root Mean Square Error of Approximation (RMSEA, Steiger, 1990), the Comparative Fit Index (CFI, Bentler, 1990), and Standardized Root Mean Square Residual (SRMR, Jöreskog & Sörbom, 1993). Alternative measurement models were also tested and their fit was compared to that of the hypothesized higher order model of civic engagement.

In the second stage of analysis, a hierarchical series of multi-group CFAs were performed following the general procedures suggested by Chen, Sousa and West (2005) in order to examine the measurement invariance of the civic engagement model across gender. Measurement invariance was tested at the configural, factor loading, intercept, residual variance and disturbance levels (Chen et al. 2005; Meredith, 1993; Widaman & Reise, 1997). A series of hierarchically nested models were examined imposing increasingly restrictive constraints of equality across groups upon the parameters of the model. Following the recommendations by Cheung and Rensvold (2002), in each step of the analysis the fit of the nested models was compared using two tests: the corrected chi-squared difference test and the change in CFI values (cut-off value: $\Delta CFI \leq .01$). The criterion of change in the CFI was particularly important in our analysis since the performance of chi-squared difference test is affected by large sample size (Chen et al., 2005). The modification indices provided by Mplus were used to evaluate which equality constraints contributed the most to degradation in the fit of the model (Byrne, 2012).

Results

Table 1 shows bivariate correlations between all the items of the four scales used to define and test the measurement model of civic engagement, along with their means and standard deviations. All the correlations were positive and statistically significant ($p < .001$). As expected, higher correlations were found between items that were designed to measure the same construct.

Table 1. Bivariate correlations, means and standard deviations of the items of the four questionnaire scales

Item	Elec1	Elec2	Elec3	Pol1	Pol2	Pol3	Pol4	Inf1	Inf2	Inf3	Inf4	Pro1	Pro2	Pro3	Pro4	Pro5	Pro6
Elec1	-																
Elec2	0.72	-															
Elec3	0.52	0.54	-														
Pol1	0.22	0.23	0.25	-													
Pol2	0.19	0.21	0.15	0.45	-												
Pol3	0.20	0.20	0.17	0.34	0.67	-											
Pol4	0.15	0.14	0.10	0.36	0.60	0.60	-										
Inf1	0.28	0.30	0.31	0.25	0.30	0.29	0.26	-									
Inf2	0.17	0.16	0.20	0.27	0.35	0.35	0.35	0.48	-								
Inf3	0.17	0.17	0.19	0.28	0.35	0.33	0.32	0.42	0.51	-							
Inf4	0.20	0.19	0.19	0.32	0.47	0.45	0.41	0.44	0.49	0.55	-						
Pro1	0.19	0.18	0.23	0.19	0.22	0.24	0.23	0.32	0.50	0.33	0.32	-					
Pro2	0.13	0.14	0.15	0.20	0.26	0.25	0.24	0.27	0.32	0.32	0.34	0.35	-				
Pro3	0.16	0.17	0.16	0.32	0.36	0.32	0.34	0.30	0.39	0.33	0.38	0.37	0.38	-			
Pro4	0.22	0.23	0.25	0.21	0.23	0.29	0.22	0.35	0.34	0.31	0.37	0.37	0.35	0.38	-		
Pro5	0.22	0.20	0.24	0.24	0.23	0.25	0.22	0.31	0.35	0.31	0.36	0.39	0.33	0.35	0.50	-	
Pro6	0.15	0.14	0.19	0.10	0.09	0.12	0.08	0.22	0.17	0.17	0.19	0.21	0.22	0.16	0.28	0.31	-
Mean	1.53	1.57	1.56	2.55	3.01	3.01	3.05	2.26	2.75	2.72	2.85	2.51	2.69	2.99	2.42	2.49	2.25
SD	0.75	0.77	0.78	0.82	0.88	0.85	0.86	0.85	0.84	0.88	0.84	0.79	0.86	0.78	0.87	0.88	0.89

Note: all the correlations are statistically significant with $p < .001$. Elec = expected electoral participation scale item; Pol = expected participation in political activities scale item; Inf = expected informal political participation scale item; Pro = expected participation in legal protest scale item.

Confirmatory Factor Analysis (CFA)

In the first stage of the analysis, a Confirmatory Factor Analysis (CFA) was performed to empirically test the civic engagement measurement model. The results of this analysis are presented in Figure 2, which shows the fit indices and the standardized parameter estimates for the measurement model. Unstandardized parameter estimates are shown in Table 2.

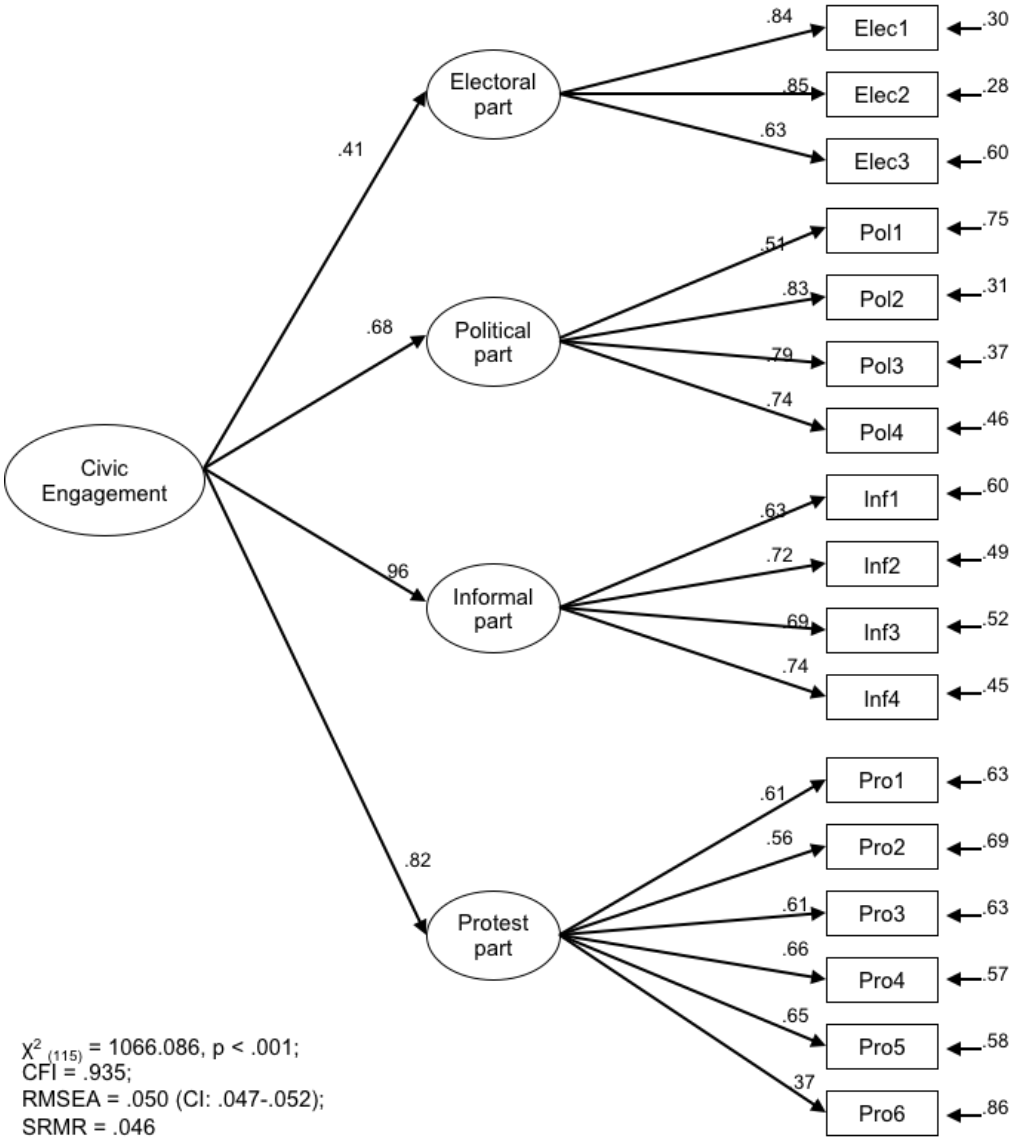

Figure 2. Confirmatory Factor Analysis results for the higher order measurement model of civic engagement (standardized parameter estimates).

Except for the chi-squared test (probably affected by the large size of the sample used in the present study) all the fit indices indicated a high degree of correspondence between the model and the empirical data (Figure 2). The RMSEA and SRMR values below the cut-off criterion of .05 indicate an excellent fit for the measurement model (Browne & Cudek, 1993; Hu & Bentler 1999), the CFI value higher than the cut-off of .90 indicates an adequate fit (Bentler, 1990). All but one of the first-order factor loadings were above .50, and over 80% of the loadings were above .60 (see Figure 2). The second-order factor loadings were above .60 for

three indicators and above .40 for one indicator (expected electoral participation). On the whole these results suggest that the higher order measurement model was empirically supported by the data.

Table 2. Unstandardized parameter estimates for the measurement model of civic engagement

	Factor loading	S.E.	Residual variances	S.E.
Expected electoral participation				
Elec1	1.000[a]	-	0.166	0.012
Elec2	1.053	0.027	0.169	0.013
Elec3	0.794	0.026	0.368	0.017
Expected participation in political activities				
Pol1	1.000 [a]	-	0.498	0.015
Pol2	1.768	0.076	0.241	0.016
Pol3	1.634	0.077	0.267	0.015
Pol4	1.562	0.074	0.338	0.015
Expected informal political participation				
Inf1	1.000 [a]	-	0.433	0.012
Inf2	1.129	0.035	0.346	0.015
Inf3	1.139	0.040	0.408	0.015
Inf4	1.155	0.039	0.318	0.013
Expected participation in legal protest				
Pro1	1.000 [a]	-	0.391	0.012
Pro2	1.014	0.041	0.512	0.015
Pro3	0.988	0.042	0.380	0.015
Pro4	1.199	0.051	0.431	0.016
Pro5	1.184	0.049	0.445	0.017
Pro6	1.694	0.046	0.689	0.019
Civic engagement				
Expected electoral participation	1.000 [a]	-	0.327	0.018
Expected participation in political activities	1.111	0.086	0.092	0.008
Expected informal political participation	2.020	0.152	0.024	0.009
Expected participation in legal protest	1.557	0.107	0.074	0.007

Note: [a] Marker variable not tested for statistical significance. All the other unstandardized estimates are statistically significant at $p < .001$

Two alternative measurement models were tested using CFA: a) a single factor model; b) a model with four correlated first-order factors. The single factor model showed a poor fit: $\chi 2$ (119) = 5007.317, $p < .001$; CFI = .67; RMSEA = .111 (90% CI: .108-.113; p RMSEA <.05 =.000); SRMR = .089. The model with four correlated first-order factors showed fit indices very close to those of the higher order measurement model tested above: $\chi 2$ (113) = 1039.914, $p < .001$; CFI = .937; RMSEA = .049 (90% CI: .047-.052; p RMSEA <.05 =.619); SRMR = .045. On the basis of these results the higher order factor model was retained since it provided a more

efficient and easily interpretable model, in comparison to the one with four first-order correlated factors (Chen et al., 2005).

Cross-gender measurement invariance: Multi-group analysis

In order to examine the measurement invariance across gender of the civic engagement model a hierarchical series of multi-group CFAs was carried out, imposing increasingly restrictive equality constraints on the model's parameters. Table 3 summarizes the results of this analysis, with the fit statistics for the different types of hypotheses about measurement invariance across gender for the civic engagement model.

Table 3. Summary of fit statistics for testing measurement invariance across gender of the higher order factor model of civic engagement

Invariance hypothesis	χ^2	df	CFI	RMSEA	SRMR	Model comparison	$\Delta\chi^2$	Δdf	ΔCFI
1-Configural invariance	1172.068*	230	.937	.049 (.047-.052)	.047	-	-	-	
2-First-order factor loadings	1199.421*	243	.936	.048 (.046-.051)	.048	1 vs 2	27,353*	13	.001
3-Second-order factor loadings	1203,891*	246	.936	.048 (.045-.051)	.049	2 vs 3	4,47^{ns}	3	0
4-Intercepts of observed variables	1403,572*	259	.923	.051 (.049-.054)	.052	3 vs 4	199,681*	13	.013
5-Intercepts of observed variables with PROT3 released	1336,767*	258	.928	.050 (.047-.053)	.050	5 vs 3	132,876*	12	.008
6-Intercepts of first-order latent factors	1455,817*	262	.920	.052 (.050-.055)	.057	6 vs 5	119,05*	4	.008
7-Disturbances of first-order latent factors	1468,695*	266	.919	.052 (.049-.055)	.059	7 vs 6	12,88**	4	.001
8-Residual variances of observed variables	1568,951*	283	.914	.052 (.050-.055)	.068	8 vs 7	100,256*	17	.005

Note: * p<.001; ** p<.05; ^{ns} not statistically significant

In the first step of the analysis, configural invariance was tested by specifying an unrestricted model (Model 1) in which the pattern of fixed and free factor loadings for the first and second-order factor loadings was constrained to be the same across groups, but different

estimates were allowed for the corresponding parameters. As can be seen from Table 3, this model showed an adequate fit to the data.

In the second step of the analysis (invariance of the first-order factor loadings), a model was specified in which all of the first-order factor loadings were constrained to be equal across groups (Model 2) and compared to the configural invariance model. The chi-squared difference test between these two models was significant (see Table 3). Given that the test was based on a large sample size and there was no substantial difference in CFI (.937 vs. .936), we concluded that there was no appreciable difference between boys and girls on the first-order factor loadings.

In the third step of the analysis, a model was tested in which all first-order and second-order factor loadings were constrained to be equal across group (Model 3). The comparison of Model 3 with Model 2 showed that the difference in the chi-squared test was not statistically significant and the CFI was unchanged, indicating that the second-order factor loadings were invariant between boys and girls.

In the fourth step of analysis, Model 4 imposed additional constraints to the intercepts of the manifest indicators to determine whether they were invariant across gender. The change in the chi-squared from Model 3 to Model 4 (Table 3) was significant and there was also a difference in the CFI values greater than the cut-off criterion (ΔCFI = 0.013). Inspection of the modification indices indicated that the fit of Model 4 could be improved by releasing the equality constraint for the intercept of item PRO3. In this item students were asked to rate the probability with which they would contact an elected representative to protest against things they believed were wrong. The hypothesis of partial invariance (e.g., Byrne, Shavelson, & Muthén, 1989) of the intercepts of manifest variables was tested by specifying Model 5, in which the cross-group equality constraint was released for the intercept of item PRO3 while being maintained for the intercepts of all the remaining items (e.g., Byrne & van de Vijver, 2010; Vandenberg & Lance, 2000). The corrected chi-squared difference test between Model 5 and

Model 3 was statistically significant, but the change in the CFI values was smaller than the cut-off criterion (ΔCFI = .008). Thus, we concluded that the hypothesis of partial invariance of the intercepts of the observed variables could be retained.

In the fifth step of the analysis, in addition to the constraints already imposed on the first-order and second-order factor loadings and to the intercepts of the measured variables (with item PRO3 excluded), the intercepts of the first-order latent factors were constrained to be equal across groups (Model 6). The chi-squared difference test between Models 6 and 5 was significant but, once again, given that there was no substantial difference in CFI (ΔCFI = .008), we concluded that there was no appreciable difference in the intercepts of the first-order factors across gender.

In the sixth step of the analysis, Model 7 imposed the additional constraint of equivalence across gender of the disturbances of the first-order latent factors. Also in this step the chi-squared difference test (between Model 7 and Model 6) was significant, while the change in CFI was very small (ΔCFI = .001). Therefore, we tested the final aspect of measurement invariance by specifying Model 8, in which cross group equality constraints were also added to the residual variances of the observed variables. The chi-squared difference test between Model 8 and Model 7 was statistically significant, but the difference in CFI values was smaller than the cut-off criterion (ΔCFI = .005). We concluded that also this last form of measurement invariance had been obtained.

On the whole, the results of the multi-group CFAs indicate that the measurement model of civic engagement was invariant across gender, since metric, (partial) scalar equivalence, and equivalence of disturbances of the first-order factors as well as the of the uniqueness of the measured variables was reached.

Discussion

The study of civic engagement in adolescence has important theoretical and applied relevance. Civic engagement during adolescence has been seen as an expression of successful and healthy development in theories of positive youth development (Lerner, Phelps, Forman, & Bowers, 2009) and as the basis of civic and political involvement during adulthood (Erikson, 1968; Finlay, Wray-Lake, & Flanagan, 2010; Flanagan & Sherrod 1998), as well as of healthy communities and societies (e.g., World Bank, 2007). Instruments that can adequately measure adolescents' civic engagement are thus needed both for testing theories and for obtaining indications for the development of policies and activities aiming to promote involvement in youth. This is especially true given the diffuse concern about recent findings regarding the disengagement of young people from politics (e.g., Eurispes, 2009; Galston, 2001; ISTAT, 2010, Vecchione & Mebane, 2006; Youniss et al. 2002).

After reviewing the literature on the theoretical definition of civic engagement in youth and its assessment we came to the following conclusions. Civic engagement is quite unanimously conceptualized as a multi-componential construct and, although the formulation of a common set of components is still a matter of considerable debate, participation in civic and political activities as well as expectations to participate have been regarded as essential aspects of civic engagement. Very few measures of civic engagement in youth have been empirically tested and validated (Bobek et al., 2009; Flanagan et al., 2007; Luengo Kanacri et al., 2012; Schulz et al., 2011; Torney-Purta et al., 2011; Zaff et al., 2010), and they have either not included participation or expectations to participate in political or protest activities, or they have considered each type of activity separately. Finally, although several studies have shown differences in the civic engagement of boys and girls (e.g., Bobek et al., 2009; Cicognani et al., 2012; Metzger & Ferris, 2013; Schulz et al., 2010), the equivalence of the measures across gender has rarely been verified (Zaff et al., 2010).

In accordance with these premises, we established two aims of the present study: to empirically test a multi-componential construct of civic engagement in adolescents based on their expectations to participate in different forms of civic and political activities and to demonstrate the measurement invariance across gender of this construct.

As regards the first aim, a higher order measurement model of civic engagement was constructed on the basis of the suggestions from the literature using the scales developed for the IEA ICCS project (Schulz et al., 2011), and it was tested by the means of a CFA on a large representative sample of eighth grade Italian students. The construct focused on adolescents expectations to participate in different forms of civic and political activities, which constituted the four first-order factors in the higher order measurement model of civic engagement: expected electoral and informal political participation, expected participation in political activities, and expected participation in legal protest. The results of the CFA confirmed the higher order factor structure of the civic engagement measurement model and showed that all the items had good psychometric properties. These findings extend our previous knowledge about the dimensionality of the four scales (Schulz et al., 2011) by confirming the good psychometric properties of the scales in the Italian context and by demonstrating that a higher order factor actually accounts for the pattern of relations between the four first-order factors. These results are significant because a higher order model has several potential advantages (Chen et al., 2005): it explains the covariance between the first order factors in an efficient way with few parameters; it separates variance caused by measurement error, leading to a theoretically error-free estimate of the specific factors; and it can provide a useful simplification by offering a single overall score on the second-order factor (instead of four scores on each of the first order factors). Therefore the construct proposed and tested in the present study provides a reliable and practical instrument to measure adolescents' overall civic engagement.

As regards the second aim, the measurement invariance of the civic engagement model across gender was examined by means of a series of multi-group CFAs, which progressively tested stricter forms of invariance. The results showed that the structure of the civic engagement construct remains consistent across gender (metric invariance), thus confirming that it is a valid representation of the construct for both boys and girls. Moreover, the invariance of the civic engagement construct was partially achieved also at the scalar level (intercepts of the first-order factors and observed variables). Demonstrating this level of invariance is crucial for the study of gender differences between boys and girls, because it makes it possible to test differences in factor means across the groups. Otherwise, gender differences in the levels of civic engagement could be confounded with differences in the origins of the scales in the two groups (Chen et al., 2005). Finally, the results showed the invariance of the civic engagement construct also at the level of the uniqueness of the measured variables and of the disturbances of the first-order factors. These findings indicate that the unique variance of each lower order factor is the same in boys and girls, and that these factors are entirely responsible for any observed differences on the means of the measured variables (Chen et al., 2005).

The results of the multi-group analysis have important implications for the study of civic engagement in adolescence. They indicate that the construct proposed in the present study can adequately account for differences between boys and girls as regards their levels of civic engagement. Therefore, it could be usefully employed in future studies for better understanding the characteristics of the gender gap in civic engagement and, consequently, for obtaining indications in order to address this gap.

Some aspects of the multi-group analysis need further comment. At each step of the analysis the fit of the nested models was compared using both the corrected chi-squared difference test and the change in CFI values. However, the results of these two tests lead to different conclusions of the analysis. If we had relied only on the chi-squared difference test,

then not even the invariance of the first-order factor loadings would have been achieved. Following the best guidelines available for this kind of analysis (Chen et al., 2005; Cheung & Rensvold, 2002), we chose to rely mostly on the criterion of change in CFI values because the chi-squared test is not reliable with large samples and it can lead to the rejection of the model also on the basis of a small discrepancy of no practical or theoretical interest. The values of the other fit indices (RMSEA and SRMR), which have been checked at each step of the analysis as an additional criterion (Chen et al., 2005), confirmed the conclusions that were based on the CFI. We believe that these results can adequately support our conclusions about the invariance across gender of the civic engagement measurement model.

The other aspect concerns the use of the approach of partial measurement invariance. Several authors recommend the investigation of partial invariance in the event that the overall test of invariance is rejected (e.g., Byrne et al., 1989; Kline, 2011; Steenkamp & Baumgartner, 1998). However, the use of this procedure is a matter of debate (e.g., Byrne & van de Vijver, 2010; Vandenberg & Lance, 2000) since some authors argue that the rejection of the null hypothesis should preclude further tests of measurement invariance (e.g., Bollen, 1989; Millsap & Hartog, 1988). In our analysis the test of partial invariance was necessary only at the level of the intercepts of the observed variables, and it concerned a single item (PRO3). Our analysis therefore complied with the conservative approach recommended by Vandenberg and Lance (2000): partial scalar invariance was tested only after having established full invariance at the previous levels (configural and metric) and the constraints were relaxed only for a very small minority (one) of indicators. However, this constraint was not relaxed on a theoretical basis, but by following the statistical criterion provided by the modification indices. Further analyses are needed in order to better understand the differential functioning of this item between boys and girls and to verify if this is characteristic only of the Italian sample or if this also valid in other countries.

The construct of civic engagement proposed and tested in the present study has several strengths. It is based on items developed by international experts, it showed good psychometric properties and proved to be suitable for studying gender differences in civic engagement. These characteristics are especially important since a lack of psychometrically strong measures in the research about civic engagement in youth has been noted (e.g., Wilkenfeld et al., 2010). The construct brought together several suggestions in the literature (Beaumont et al. 2006; Flanagan & Faison, 2001; Haste & Hogan, 2006; Jugert et al., 2013; Marzana et al., 2012; Metzger & Smetana, 2009) about the need to go beyond the mere act of voting by taking into consideration also the newer, less formal and more active ways of participation (e.g., taking part in protests, joining organizations, internet activism) especially when focusing on young people. It is also innovative because it allows us to evaluate the overall expectations of participation in adolescents, taking into consideration various forms of participation at the same time instead of focusing on specific areas separately. Unlike some of the previous measures (e.g. Bobek et al., 2009; Zaff et al., 2010), the present construct focuses only on adolescents' expectations to participate civically and politically and does not integrate within a single construct other components such as social responsibility, political efficacy, and civic skills. This characteristic makes it suitable to study the relationships between adolescents' expected participation and these other important aspects of civic engagement. In fact, civic knowledge, skills, and efficacy beliefs have often been considered as preconditions for participation (e.g., Dudley & Gitelson, 2002; Krampen, 2000) and as proximal determinants of behaviours or intended behaviours (e.g., Bandura, 1997), but the relationships between all these components have rarely been investigated empirically and cannot be explored when they are included in a single construct. Finally, the focus on behavioural expectations rather than on actual behaviours makes this construct especially suitable for underage adolescents. The research has less frequently investigated this transitional period that is instead crucial for the development of civic engagement.

Despite all its strengths, the study does have some limitations. Firstly, the findings of the present study are limited by the absence of measures regarding young people's actual behaviors. Research on civic engagement in youth has extensively studied their participation expectations and the theory of reasoned action (Fishbein & Ajzen, 1975, 2010) regarded behavioural expectations as the immediate antecedents of behaviour and its best predictors. Several studies have also shown a high level of consistency between expectations to vote and voting (e.g., Fishbein & Ajzen, 1980; Granberg & Holmberg, 1990), and high stability and persistence in political attitudes, ideology, and participation over the life span (e.g., Jennings & Stoker, 2004). However, longitudinal studies are needed to verify whether adolescents' expectations to participate can effectively predict actual civic and political behaviours during adulthood. Secondly, although the sample employed in this study was a nationally representative sample of eight grade students, only Italian data was considered: future research should be therefore conducted in order to generalize our findings across various nations and cultural contexts. Finally, further aspects of the validity of the construct proposed in the present study need to be verified. For example, criterion validity could be examined by investigating the relationships between this instrument and other measures developed for the assessment of civic engagement in youth and by verifying that this instrument can in fact predict future civic and political behaviours.

References

Albanesi, C., Cicognani, E., & Zani, B. (2007). Sense of Community, CE and Social Well-being in Italian Adolescents. *Journal of Community & Applied Social Psychology, 17*, 387–406.

Althof, W., & Berkowitz, M.W. (2006). Moral education and character education: their relationship and roles in citizenship education. *Journal of Moral Education, 35(4)*, 495-518.

Amnå, E. (2012). How is civic engagement developed over time? Emerging answers from a multidisciplinary field. *Journal of Adolescence 35*, 611–627.

Andolina, M.W, Jenkins, K., Keeter, S., & Zukin, C. (2002). Searching for the Meaning of Youth Civic Engagement :Notes From the Field. *Applied Developmental Science 6(4)*, 189–195.

Asparouhov, T. (2005). Sampling weights in latent variable modeling. *Structural Equation Modeling, 12*, 411-434.

Bandura, A. (1997). *Self efficacy: the exercise of control*. New York: Freeman

Beaumont, E., Thomas Ehrlich, A.C., & Torney-Purta J. (2006). Promoting political competence and engagement in college students: an empirical study. *Journal of political science education, 2*, 249-270.

Bentler, P. M. (1990). Comparative fit indices in structural equation models. *Psychological Bulletin, 107,* 238–246.

Bobek, D., Zaff, J., Li, Y., & Lerner, R.M. (2009). Cognitive, emotional, and behavioral components of civic action: Towards an integrated measure of civic engagement. *Journal of Applied Developmental Psychology, 30*, 615-627.

Bollen, K. A. (1989). *Structural equations with latent variables*. New York: John Wiley.

Brese, F., Jung, M., Mirazchiyski, P., Schulz, W., & Zuehlke, O. (2011). *ICCS 2009 User guide for the international database*. Amsterdam, The Netherlands: International Association for the Evaluation of Educational Achievement (IEA).

Browne, M. W., & Cudeck, R. (1993). Alternative ways of assessing model fit. In K. A. Bollen & J. S.Long (Eds.), *Testing structural equation models* (pp. 136–162). Newbury Park, CA: Sage.

Byrne, B.M. (2012). *Structural equation modeling with Mplus*. New York: Routledge.

Byrne, B., Shavelson, R., & Muthén, B. (1989). Testing for the equivalence of factor covariance and mean structures: The issue of partial measurement invariance. *Psychological Bulletin, 105,* 456–466.

Byrne, B.M., & van de Vijver, F.J.R. (2010). Testing for measurement and structural equivalence in large-scale cross-cultural studies: addressing the issue of nonequivalence. *International Journal of Testing, 10*(2)*,* 107-132.

Chen, F.F., Sousa, K.H., & West, S.G. (2005). Testing Measurement Invariance of Second-Order Factor Models. *Structural Equation Modeling, 12*(3), 471-492.

Cheung, G.W., & Rensvold, R.B. (2002). Evaluating goodness-of-fit indexes for testing measurement invariance. *Structural Equation Modeling: A Multidisciplinary Journal, 9*(2), 233-255

Cicognani, E., Zani, B., Fournier, B., Gavray, C., & Born, M. (2012). Gender differences in youths' political engagement and participation. The role of parents and of adolescents' social and civic participation. *Journal of Adolescence, 35*, 561–576.

Dudley, R.L., & Gitelson, A.R. (2002). Political Literacy, Civic Education, and Civic Engagement: A Return to Political Socialization? *Applied Developmental Science, 6(4)*, 175-182.

Eckstein, K., Noack, P., & Gniewosz, B. (2012). Attitudes toward political engagement and willingness to participate in politics: Trajectories throughout adolescence. *Journal of Adolescence, 35*, 485–495.

Ekman, J., & Amnå, E. (2012). Political participation and civic engagement: Towards a new typology. *Human Affairs, 22*(3), 283-300.

Erikson, E. (1968). *Identity: Youth and crisis*. New York: Norton.

Eurispes. (2009). *10° Rapporto nazionale sulla condizione dell'infanzia e dell'adolescenza*. Rome, Italy: Eurispes & Telefono Azzurro.

Finlay, A., Wray-Lake, L. & Flanagan, C. (2010). Civic engagement during the transition to adulthood: developmental opportunities and social policies at a critical juncture. In R.M. Lerner & L. Steinberg (Eds.), *Handbook of adolescent psychology* (pp. 721-746). Hoboken, NJ: John Wiley & Sons.

Fishbein, M., & Ajzen, I. (1975). *Belief, Attitude, Intention, and Behavior: An Introduction to Theory and Research*. Reading, MA: Addison-Wesley.

Fishbein, M., & Ajzen, I. (1981). Attitudes and voting behaviour: An application of the theory of reasoned action. In G. M. Stephenson & J. M. Davis (Eds.), *Progress in applied social psychology* (Vol. 1, pp. 95-125). London: Wiley.

Fishbein, M., & Ajzen, I. (2010). *Predicting and Changing Behavior. The Reasoned Action Approach*. New York: Taylor & Francis Group.

Flanagan, C.A. (2004). Volunteerism, leadership, political socialization, and civic engagement. In R.M. Lerner & L. Steinberg (Eds.), *Handbook of adolescent psychology* (pp. 721-746). Hoboken, NJ: John Wiley & Sons.

Flanagan, C.A., & Faison, N. (2001). Youth civic development: implications of research for social policy and programs. *Social Policy Report, 15*(1), 1-16.

Flanagan, C.A., Syvertsen, A.K., & Stout, M.D. (2007). Civic Measurement Models: Tapping Adolescents' Civic Engagement. *CIRCLE Working Paper*, 55.

Flanagan, C.A., & Sherrod, L.R. (1998). Youth political development: an introduction. *Journal of Social Issues, 54*(3), 447-456.

Galston, W.A. (2001). Political knowledge, political engagement, and civic education. *Annual Review of Political Sience, 4*, 217-234.

Granberg, D., & Holmberg, S. (1990). The Intention-Behavior Relationship Among U.S. and Swedish Voters. *Social Psychology Quarterly, 53*(1), 44-54.

Haste, A., & Hogan, A. (2006). Beyond conventional civic participation, beyond the moral-political divide: young people and contemporary debates about citizenship. *Journal of Moral Education, 35*(4), 473–493.

Higgings-D'Alessandro, A. (2010). The transdisciplinary nature of citizenship and civic/political engagement evaluation. In L. R. Sherrod, J. Torney-Purta, C. A. Flanagan (Eds.), *Handbook of research on civic engagement in youth*. Hoboken, NJ: John Wiley & Sons Inc.

Hooghe, M., & Stolle, D. (2004). Good girls go to the polling booth, bad boys go everywhere: bender differences in anticipated political participation among American fourteen-year-olds. *Women & Politics, 26*(3/4), 1-23.

Hooghe, M., & Wilkendfeld, B. (2008). The stability of political attitudes and behaviors across adolescence and early adulthood: a comparison of survey data on adolescents and young adults in eight countries. *Journal of Youth Adolescence, 37*(2), 155–167

Hu, L., & Bentler, P. M. (1995). Evaluating model fit. In R. H. Hoyle (Ed.), *Structural equation modeling: concepts, issues, and applications*. Newbury Park, CA: Sage.

Hu, L.T., & Bentler, P.M. (1999). Cut-off criteria for fit indices in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling, 6*, 1-55.

ISTAT (2010). *La partecipazione politica: differenze di genere e territoriali*. Rome, Italy: Author.

Jahromi, P., Crocetti, E., & Buchanan, C.M. (2012). A Cross- Cultural Examination of Adolescent Civic Engagement: Comparing Italian and American Community- Oriented and Political Involvement. *Journal of Prevention & Intervention in the Community, 40*(1), 22-36.

Jennings, M. K., & Stoker, L. (2004). Social trust and civic engagement across time and generations. *Acta Politica, 39*, 342–379.

Joreskog, K. G., & Sorbom, D. (1993). *LISREL 8: User's guide*. Chicago: Scientific Software.

Jugert, P., Eckstein, K., Noack, P., Kuhn, A., & Benbow A. (2013). Offline and online civic engagement among adolescents and young adults from three ethnic groups. *Journal of Youth and Adolescence, 42*(1), 123-135.

Kline, R.B. (2011). *Principles and practice of structural equation modeling*. (3rd ed.). New York, NY: The Guilford Press.

Krampen, G. (2000). Transition of adolescent political action orientation to voting behavior in early adulthood in view of a social-cognitive action theory model of personality. *Political Psychology, 21*(2), 277-297.

Lerner, R. M., Lerner, J. V., Almerigi, J., Theokas, C., Phelps, E., Gestsdottir, S. Naudeau, S., Jelicic, H., Alberts, A. E., Ma, L., Smith, L. M., Bobek, D. L., Richman-Raphael, D., Simpson, I., Christiansen, E. D., & von Eye, A. (2005). Positive youth development, participation in community youth development programs, and community contributions of fifth grade adolescents: Findings from the first wave of the 4-H Study of Positive Youth Development. *Journal of Early Adolescence, 25(1)*, 17-71.

Lerner, J. V., Phelps, E., Forman, Y., & Bowers, E. P. (2009). Positive youth development. In R. M. Lerner, & L. Steinberg (Eds.), *Handbook of adolescent psychology* (3rd ed.) Hoboken, NJ: Wiley.

Luengo Kanacri, B.P., Rosa, V., & Di Giunta L. (2012): The mediational role of Values in linking personality yraits to civic engagement in Italian youth. *Journal of Prevention & Intervention in the Community, 40*(1), 8-21.

Mahatmya, D., & Lohman, B.J. (2012). Predictors and pathways to civic involvement in emerging adulthood: neighbourhood, family, and school influences. *Journal of Youth and Adolescence, 41*(9), 1168–1183.

Marzana, D., Marta E., & Pozzi M. (2012). Social action in young adults: Voluntary and political engagement. *Journal of Adolescence, 35*, 497-507.

Meredith, W. (1993). Measurement invariance, factor analysis and factorial invariance. *Psychometrika, 58,* 525–543.

Metz, E., & Youniss, J. (2003). September 11 and Service: A Longitudinal Study of High School Students' Views and Responses. *Applied Developmental Science, 7*(3), 148-155.

Metzger, A., & Ferris, K. (2013). Adolescents' domain-specific judgments about different forms of civic involvement: Variations by age and gender. *Journal of Adolescence, 36*, 529–538.

Metzger, A., & Smetana, J.G. (2009). Adolescent Civic and Political Engagement: Associations Between Domain-Specific Judgments and Behavior. *Child Development, 80 (2)*, 433–441.

Metzger, A., & Smetana, J.G. (2010). Social Cognitive development and adolescent civic engagement. In L. R. Sherrod, J. Torney-Purta, C. A. Flanagan (Eds.) *Handbook of Research on Civic Engagement in Youth*. Hoboken, NJ: John Wiley & Sons Inc.

Millsap, R. E., & Hartog, S. B. (1988). Alpha, beta, and gamma change in evaluation research: A structural equation approach. *Journal of Applied Psychology*, *73*, 574-584.

Muthén, L.K., & Muthén, B.O. (2006). *Mplus user's guide* (6th ed.). Los Angeles, CA: Muthén & Muthén.

Obradovic, J., & Masten, A.S. (2007). Developmental antecedents of young adult civic engagement. *Applied Developmental Science, 11*(1), 2-19.

Omoto, A. M., & Snyder, M. (1995). Sustained helping without obligation: Motivation, longevity of service, and perceived attitude change among AIDS volunteers. *Journal of Personality and Social Psychology, 68*, 671–686.

Pasek, J., Feldman, L., Romer, D., & Jamieson, K. (2008). Schools as incubators of democratic participation: building long-term political efficacy with civic education. *Applied Developmental Science, 12*(1), 236−237.

Schmid, C. (2012). The value "social responsibility" as a motivating factor for adolescents' readiness to participate in different types of political actions, and its socialization in parent and peer contexts. *Journal of Adolescence 35*, 533–547

Schulz, W. (2009). Questionnaire construct validation in the International Civic and Citizenship education Study. *IERI Monograph Series, Volume 2*, 113-135.

Schulz, W., Ainley, J., & Fraillon, J. (2011). *ICCS 2009 Technical Report*. Amsterdam, The Netherlands: International Association for the Evaluation of Educational Achievement (IEA).

Schulz, W., Ainley, J., Fraillon, J., Kerr, D., & Losito, B. (2010). *ICCS 2009 International Report: Civic knowledge, attitudes, and engagement among lower secondary school students in 38 countries*. Amsterdam, The Netherlands: International Association for the Evaluation of Educational Achievement (IEA).

Schulz, W. & Brese, F. (2008). Assessing Student Knowledge, Background and Perceptions in the International Civic and Citizenship Study. *Paper presented at the Annual Meetings of the American Educational Research Association in New York, 24-28 March.*

Schulz, W., Fraillon, J., Ainley, J., Losito, B., & Kerr, D. (2008). *International Civic and Citizenship Education Study: Assessment framework*. Amsterdam, The Netherlands: International Association for the Evaluation of Educational Achievement (IEA).

Sherrod, L.R., Flanagan, C., & Youniss, J. (2002). Dimensions of citizenship and opportunities for youth development: The What, Why, When, Where, and Who of Citizenship Development. *Applied Developmental Science, 6*(4), 264–272.

Sherrod, L. R., & Lauckhardt, J. (2009). The development of citizenship. In R.M.Lerner & L. Steinberg (Eds.) *Handbook of adolescent psychology*. Hoboken, NJ: John Wiley & Sons Inc

Solhaug, T. (2006). Knowledge and self-efficacy as predictors of political participation and civic attitudes. *Policy Futures in Education, 4*(3), 265-278.

Steenkamp, J.E.M., & Baumgartner, H. (1998). Assessing measurement invariance in cross- national consumer research. *Journal of Consumer Research*, *25*, 78-90.

Steiger, J. H. (1990). Structural model evaluation and modification: An interval estimation approach. *Multivariate Behavioral Research, 25,* 173–180.

Torney-Purta, J., Amadeo, J.A., & Andolina, M.W. (2010). A conceptual framework and multimethod approach for research on political socialization and civic engagement. In L. R. Sherrod, J. Torney-Purta, C. A. Flanagan (Eds.) *Handbook of research on civic engagement in youth*. Hoboken, NJ: John Wiley & Sons Inc.

Torney-Purta, J., Lehmann, R., Oswald, H., & Schulz, W. (2001). *Citizenship and education in twenty eight countries*. Amsterdam: International Association for the Evaluation of Educational Achievement (IEA).

Vandenberg, R.J., & Lance C.E. (2000). A Review and Synthesis of the Measurement Invariance Literature: Suggestions, Practices, and Recommendations for Organizational Research. *Organizational Research Methods, 3*(4), 4-70.

Vecchione, M. & Mebane, M. E. (2006). Il grande freddo. La disaffezione giovanile verso la politica convenzionale. *Psicologia Contemporanea, 198*, 71-73.

Verba, S., Scholzman, K.L., & Brady, H. (1995). *Voice and equality: civic voluntarism in American politics*. Cambridege, MA: Harvard University Press.

Walker, T. (2002). Service as a pathway to political participation: what research tells us. *Applied Developmental Science, 6*(4), 183–188.

Walker T. (2002). Service as a Pathway to Political Participation: What Research Tells Us. *Applied Developmental Science, 6(4)*, 183–188.

Widaman, K. F., & Reise, S. P. (1997). Exploring the measurement invariance of psychological instruments: Applications in the substance use domain. In K. J. Bryant, M. Windle, & S. G. West (Eds.), *The science of prevention: Methodological advances from alcohol and substance abuse research* (pp. 281–324). Washington, DC: American Psychological Association.

Wilkenfeld B., Lauckhardt J., Torney-Purta J. (2009). The relation between developmental theory and measures of civic engagement in research on adolescents. In L. R. Sherrod, J. Torney-Purta, C. A. Flanagan (Eds.) *Handbook of Research on Civic Engagement in Youth*. Hoboken, NJ: John Wiley & Sons Inc.

World Bank. (2007). *World development report 2007: Development and the next generation*. Washington, DC: Author

Yates, M., & Youniss, J. (1998). Community service and political identity development in adolescence. *Journal of Social Issues, 54*(3), 495n512.

Youniss, J., Bales, S., Christmas-Best, V., Diversi, M., McLaughlin, M., & Silbereisen, R. (2002). Youth civic engagement in the twenty-first century. *Journal of Research on Adolescence, 12*(1), 121-148.

Youniss, J., McLellan, J.A., & Yates, M. (1997). What we know about engendering civic identity. *The American Behavioral Scientist, 40(5)*, 620-631.

Zaff, J., Boyd, M., Li, Y., Lerner, J.V., & Lerner, R.M. (2010). Active and engaged citizenship: multi-group and longitudinal factorial analysis of an integrated construct of civic engagement. *Journal of Youth and Adolescence, 39*(7), 736–750.

Zaff, J., Kawashima-Ginsberg, K., Lin, E.S., Lamb, M., Balsano, A., Lerner, R.M. (2012). Developmental trajectories of civic engagement across adolescence: Disaggregation of an integrated construct. *Journal of Adolescence, 34*, 1207-1220.

CHAPTER 3
Adolescents' civic engagement: The role of civic knowledge and efficacy beliefs

Abstract

The aim of the present study was to examine the role of civic knowledge and efficacy beliefs as factors that can promote adolescents' civic engagement, also taking into consideration the influences of socio-economic backgrounds and gender differences. Structural equation modelling techniques were employed to examine data from the International Civic and Citizenship education Study, collected from 3,352 eighth grade Italian students. The results revealed that gender significantly moderated some relationships among variables, and that efficacy beliefs, but not civic knowledge, positively influenced civic engagement. Socio-economic background influenced all the variables included in the study, but had a very small direct impact on civic engagement. Thus adolescents' civic engagement appears not to be predetermined by their socio-economic background and it can be promoted by making them confident about their civic and political abilities. These results extend the understanding of civic engagement of youth, and can inform policies aiming to promote it.

Keywords: civic engagement; efficacy beliefs; civic knowledge; socio-economic status; structural equation modelling; IEA ICCS 2009.

Introduction

Adolescents' civic engagement has been regarded as an expression of a successful and healthy development (e.g., Sherrod, Torney-Purta, & Flanagan, 2010) and as the foundation of civic and political involvement in adulthood (e.g., Eckstein, Noack, & Gniewosz, 2012; Flanagan & Sherrod, 1998). Moreover, it is also considered critical for the health of communities, economies, governments, and societies (World Bank, 2007).

Civic engagement has often been understood as electoral and formal political participation (voting or intending to vote, being a member of a political party; e.g., Obradovic & Masten, 2007; Walker, 2002). However, several studies have suggested that newer and less formal forms of engagement (e.g., internet activism, signing petitions) should be also taken into consideration, especially when focusing on adolescents (e.g., Haste & Hogan, 2006; Jugert, Eckstein, Noack, Kuhn, & Benbow, 2013; Marzana, Marta, & Pozzi, 2012; Youniss et. al., 2002) and have proposed that civic engagement is a complex and multifaceted phenomenon that is best described by using multiple components (Bobek, Zaff, Li, & Lerner, 2009; Ekman & Amnå,

2012; Higgings-D'Alessandro, 2010; Luengo Kanacri, Rosa, & Di Giunta, 2012; Sherrod et al., 2010; Zaff, Boyd, Li, Lerner, & Lerner 2010). Moreover, since adolescents have limited opportunities to participate as active citizens, at least until they come of age, research has often focused on their intentions or expectations to participate in political and civic activities, considering them as informative and predictive of future engagement (Eckstein et al., 2012; Hooghe & Wilkenfeld, 2008; Schulz, Ainley, Fraillon, Kerr, & Losito, 2010; Schmid, 2012; Torney-Purta, Lehmann, Oswald, & Schulz, 2001). Therefore, in the current study we assessed adolescents' overall civic engagement by means of a multi-componential construct which included their expectations to participate in formal political activities as well as in informal and new civic activities (see chapter 2).

As Amnå (2012) has recently pointed out, there is a need of studies which can help to identify the factors associated with civic engagement in youth. The knowledge about these factors may in fact inform policies and initiatives aiming to promote and sustain adolescents' engagement.

Civic knowledge and efficacy beliefs referring to civic and political activities have been considered as core elements for the development of civic engagement in youth (e.g., Galston, 2001; Verba Scholzman, & Brady, 1995) also within some recently proposed theoretical frameworks (Schulz, Fraillon, Ainley, Losito, & Kerr; 2008; Torney-Purta, Amadeo, & Andolina, 2010). The influence of the family context and socio-economic background on civic engagement, attitudes and competencies has also been pointed out (Flanagan & Faison, 2001; Mahatmya & Lohman, 2012; Marzana et al., 2012; Schulz et al., 2008; Sherrod, Flanagan, & Youniss, 2002). Empirical studies have, however, mainly investigated the relationships between civic engagement and civic knowledge or efficacy beliefs independently, usually focussing on specific forms of participation separately, without evaluating the influence of socio-economic background on all these variables.

The aim of the present study was therefore to simultaneously examine the influence of civic knowledge and efficacy beliefs regarding civic and political activities on adolescents' overall civic engagement, also taking into consideration the influence of their socio-economic background. Moreover, since gender differences have been detected in the field of civic engagement (Bobek et al., 2009; Cicognani, Zani, Fournier, Gavray, & Born, 2012; Hooghe & Stolle, 2004; Metzger & Ferris, 2013; Schulz et al., 2010) the present study investigated also whether the above mentioned factors had the same effect on civic engagement in both boys and girls.

In the remainder of this paper, we first review the research literature on the relationships between efficacy beliefs, civic knowledge, socio-economic background, and adolescents' civic engagement. Then, we describe the methods and the results of our empirical study. Finally, we discuss our main results, also drawing out some implications for programmes aiming to promote civic engagement in youth and for future research.

Efficacy beliefs and civic engagement

Efficacy beliefs are developed early in life (Bandura, 1997; Pastorelli et al., 2001) and they have been shown to influence various elements of psychosocial functioning during adolescence (e.g., Bandura, Caprara, Barbaranelli, Gerbino, & Pastorelli, 2003; Caprara, Barbaranelli, Pastorelli, & Cervone, 2004). Research on the relationship between efficacy beliefs and civic and political engagement has mainly focused on internal political efficacy, which refers to individuals' confidence in their ability to understand politics and to act politically (Balch, 1974; Zimmerman, 1989; Vecchione & Caprara, 2009). In order to include civic activities that are more familiar to adolescents in their everyday lives, the concept of citizenship self-efficacy has recently been developed (Schulz et al., 2008; Solhaug, 2006). This refers to adolescents' beliefs about their capability to perform activities regarding a general concept of citizenship

participation at or outside school (e.g., discuss a newspaper article about a conflict between countries).

Efficacy beliefs influence the likelihood of adolescents' engagement because if they feel they are not able to deal effectively with the political system and civic issues, they will tend to avoid opportunities for involvement (Beaumont, 2010; Pasek, Feldman, Romer, & Jamieson, 2008). Internal political efficacy and citizenship self-efficacy were found to be positive predictors of youths' expected electoral participation, active political participation and participation in legal protests (Ainley & Schulz, 2011; Schulz et al., 2010; Solhaug, 2006). Moreover, internal political efficacy assessed in secondary school students was found to be a predictor of their political activity in everyday life during early adulthood and to positively influence their voting behaviour (Krampen, 2000; Pasek et al., 2008).

In accordance with the research literature, in the present study we hypothesized a direct impact of both internal political efficacy and citizenship self-efficacy on adolescents' overall civic engagement. Furthermore, due to the similarities between the two efficacy constructs, a correlation between them is also expected.

Civic knowledge and civic engagement

Civic knowledge has been defined as an inclusive and structured construct that encompasses both the possession of information in various content domains (civic society and systems, civic principles, civic participation, and civic identities) and the skills (knowing, reasoning and analyzing) for using these contents (Schulz et al., 2008; Torney-Purta et al., 2001). There is enough agreement on the fact that at least a basic level of civic knowledge is necessary for civic judgments and participation in public matters (e.g., Dahl, 1992) and that civic knowledge can promote electoral participation (Delli Carpini & Keeter, 1996; Dudley & Gitelson, 2002; Galston, 2001; Verba et al., 1995). Civic knowledge has also been shown to be a consistent positive predictor of adolescents' expected electoral participation across countries

(Schulz, 2005; Schulz et al., 2010; Torney-Purta et al., 2001). However, the influence of civic knowledge was found to be absent or even negative on expectations of active political participation (Schulz, 2005; Schulz et al., 2010) and negligible on expected participation in legal protest activities (Ainley & Schulz, 2011). Finally, the influence of civic knowledge on future political participation proved to be similar to or even weaker than that of efficacy beliefs (Krampen, 2000; Solhaug, 2006).

On the basis of the research literature, in the present study we hypothesized a direct impact of civic knowledge on overall civic engagement, but, due to the inclusion of different forms of participation, we anticipated that this effect could be substantially less than that found in previous studies on electoral participation. Moreover, consistently with previous findings (Brussino, Medrano, Sorribas, & Rabbia, 2011; Krampen, 2000; Pasek et al., 2008; Solhaug, 2006), we hypothesized a reciprocal relationship between civic knowledge and each of the efficacy belief constructs.

Socio-economic background and civic engagement

Adolescents' socio-economic background usually refers to the occupational status and the educational level of their parents and the family's literacy resources (e.g., Schulz et al. 2008; OECD, 2012). It has been described as an antecedent that shapes knowledge, competencies, dispositions, and self-beliefs (Schulz et al., 2008; Torney-Purta et al., 2010). Some studies have shown that a higher level of parent education was linked to a higher likelihood of political and civic participation (Mahatmya & Lohman 2012; Marzana et al., 2012; Perliger, Canetti-Nisim, & Pedahzur, 2006). However, in other studies adolescents' socio-economic background had only small positive effects on expected electoral participation and it had negative or not significant effects on active political participation (Schulz et al. 2010). On the other hand, adolescents' socio-economic background was found to have a great influence on their civic knowledge (Schulz et al. 2010; Torney-Purta et al., 2001) and on political reasoning (Flanagan & Tucker,

1999). Finally, while some studies showed that fathers' level of education had a significant positive impact on adolescents' efficacy beliefs (Perliger et al., 2006), others evidenced that the effects of parents' socio-economic background were insignificant or rather weak (Schulz, 2005; Solhaug, 2006).

The present study examined the influence of adolescents' socio-economic background on each of the other constructs taken into consideration. In accordance with research literature, we anticipated that this influence should be stronger on civic knowledge than on efficacy beliefs or civic engagement.

Gender differences

Studies highlighted significant gender differences in the field of civic engagement during adolescence (Cicognani et al., 2012; Hooghe & Stolle, 2004; Jahromi, Crocetti, Buchanan, 2012; Metzger & Ferris, 2013) and showed that girls are generally more civically informed and engaged than boys (e.g., Bobek et al., 2009; Schulz et al., 2010). Moreover, gender has been found to influence the ways in which young people learn about politics (Wolak & McDevitt, 2011). Gender differences in civic engagement have been seen as the result of an interaction between various elements (e.g., Burns, Schlozman, & Verba, 2001). However, there is little consensus about how these differences can be explained.

In the present study we evaluated the gender differences in civic knowledge, efficacy beliefs, and civic engagement. Furthermore, we investigated whether the factors that influence civic engagement are the same or different for boys and for girls. This was done by examining possible moderating effects of gender on the influences that socio-economic background, civic knowledge, and efficacy beliefs have on adolescents' overall civic engagement.

The current study

The aim of the present study was to evaluate the role of civic knowledge and efficacy beliefs as factors that can explain adolescents' civic engagement, also taking into consideration the influences of socio-economic background and gender differences. To achieve this goal, on the basis of theoretical frameworks (Schulz et al., 2008; Torney-Purta et al., 2010) and the research literature summarized above, a model of civic engagement (see fig. 1) was developed and tested. In the model, civic engagement was defined as an integrated construct including adolescents' expectations to participate in different form of activities: electoral and informal political participation, participation in political activities and in legal protest. Civic knowledge, internal political efficacy and citizenship self-efficacy are inter-correlated factors that have a direct impact on adolescents' overall civic engagement. Adolescents' socio-economic background is an exogenous factor that affects each of the other constructs included in the model.

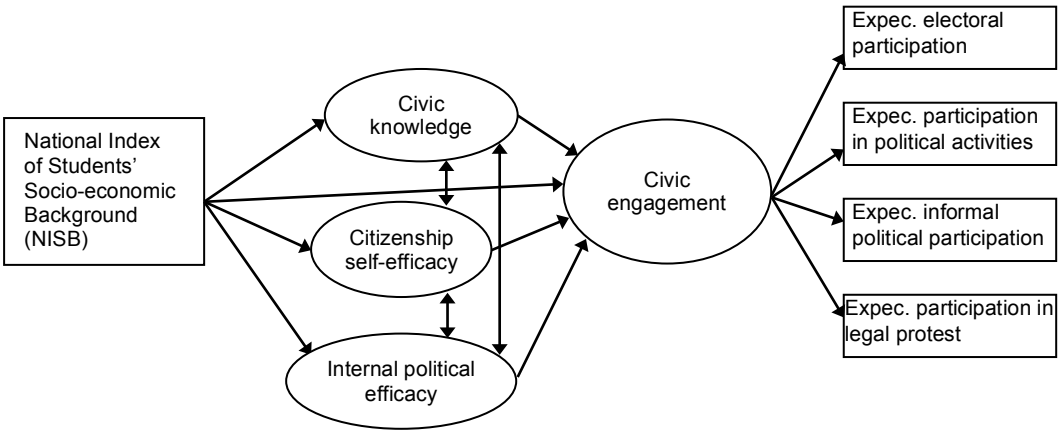

Figure 1. The tested model of civic engagement

Furthermore, by means of a multi-group approach, gender differences in civic engagement, civic knowledge, efficacy beliefs, and socio-economic background have been

evaluated and the possibility that the pattern of relationships between these variables may be different between boys and girls has been explored.

Method

Participants and procedure

The data analyzed in the present study came from 3,352 Italian eighth grade students who took part in the International Civic and Citizenship education Study (ICCS 2009; Schulz et al., 2010) of the International Association for the Evaluation of Education Achievement (IEA). The purpose of this project was to investigate the extent to which young people are prepared to undertake their roles as citizens. The average age of the students' was 13.81 years (SD = 0.50) and 51.9% of the students were male. Participant students were sampled using the stratified two-stage probability design defined by the IEA[1] (Schulz, Ainley, & Fraillon, 2011). Due to the complex structure of the student sample, appropriate sampling weights were applied in the data analysis so as to accommodate for unequal selection probabilities (Brese et al., 2011; Schulz et al., 2011).

Data was collected by means of two instruments, the cognitive test and the student questionnaire, following the IEA ICCS assessment protocol that is described in detail in the Technical Report (Schulz et al., 2011). Each participating school gave its informed consent. Data was collected in the classes during the first part of an ordinary school day, by teachers trained by the researchers. The test administrator was not allowed to be a teacher of the sampled class. In each class, students completed the cognitive test first and then the student questionnaire. Participants were given a brief, standardized introduction and instruction, in which they were informed of the purpose of the study and they were guaranteed confidentiality.

[1]Firstly, 172 schools were sampled from the population of Italian lower secondary schools with a probability proportional to their size. Secondly, one intact class of eight graders was randomly selected in each school, and all the students in each class were assessed for the survey.

Measures

The cognitive test was used to assess civic knowledge while the student questionnaire was used to assess all the other variables (Italian and English versions of the items are reported in the Appendix). Information about the development of the two instruments and statistical information on item parameters and scales factor structure have been covered in detail elsewhere (Schulz, 2009; Schulz et al., 2011) and so will be not detailed here.

Civic engagement

Four questionnaire scales were used to measure adolescents' overall civic engagement (cf. Chapter 2). In each of the scales, students were asked to rate the probability with which they expected to take part in different activities, using a 4-point response scale (ranging from "I will certainly do this" to "I will certainly not do this"). A three-item scale measured students' expected electoral participation (e.g., "vote in national elections"). A four-item scale assessed students' expected participation in political activities (e.g., "help a candidate or party during election campaign"). Expected informal political participation was measured using a four-item scale (e.g., "contribute to an online discussion forum about social and political issues"). Finally, a six-item scale addressed expected participation in legal protest (e.g., "taking part in a peaceful march or rally"). The reliability of the four scales (Cronbach's alpha) was .82, .81, .79 and .75, respectively (Schulz et al., 2011). An index was derived from each of these scales (Schulz et al. 2011) using the Partial Credit Model (Masters & Wright, 1997) for scaling and weighted likelihood estimation to obtain individual student scores. These four indices were used in the model as indicators of the latent variable of civic engagement.

National Index of Students' Socioeconomic Background (NISB)

The NISB was derived from three different indices (Schulz et al. 2011): highest occupational status of parents (HISEI), highest educational level of parents (HISCED), and home literacy resources (HOMELIT). HISEI was computed by assigning ISCO codes (International

Labour Organization 1990) to the students' answers to open-ended questions about their parents' jobs, and then mapping these codes to the International Socioeconomic Index of Occupational Status (ISEI; Ganzeboom et al. 1992). HISCED was computed using students' reports on the level of education of their parents (multiple choice item) based on the six categories of the International Standard Classification of Education (ISCED; UNESCO 2006). For both HISEI and HISCED, the highest of the indices of either parent was used. HOMELIT was computed on the basis of a question that asked students how many books they had in their homes (multiple choice item with answers ranging from "0 to 10 books" to "More than 500 books"). A principal component analysis was performed on the three indices and the resulting factor scores were used as the final NISB scores. The NISB showed a reliability of .68 (Schulz et al., 2011).

Internal political efficacy and Citizenship self-efficacy

A six-item scale assessed internal political efficacy. Students were asked to rate (on a 4-point scale ranging from "Strongly agree" to "Strongly disagree") statements reflecting beliefs about their own capacity to engage in politics (e.g., "I have a good understanding of the political issues facing this country"). A six-item scale assessed citizenship self-efficacy. Students had to rate (on a 4-point scale ranging from "Very capable" to "Not at all capable") how capable they thought they would be in performing different activities related to citizenship participation at or outside school (e.g., "argue your point of view about a controversial political or social issue"). The scales' reliability was .84 and .80, respectively (Schulz et al., 2011). The items of each scale were used in the model as indicators of each of the two latent variables of efficacy beliefs.

Civic knowledge

Civic knowledge was measured using a test consisting of 79 items (6 constructed-response and 73 multiple-choice). The test items were grouped into seven clusters, and each student completed one achievement booklet consisting of three of these clusters (Schulz et al.,

2011). The civic knowledge test was designed to cover four content domains (civic society and systems, civic principles, civic participation and civic identities) and two cognitive domains (knowing and reasoning and analyzing). The Rasch model (Rasch, 1960) was employed to derive the cognitive scale from the 79 test items and plausible value methodology with full conditioning was used to generate five separate estimates of civic knowledge scores for each student (Schulz et al., 2011). These estimates were used in the model as indicators of the latent variable of civic knowledge.

Analysis Plan

The process of analysis was carried out in two stages using the MPlus 6.0 software (Muthén & Muthén, 2006), with the Robust Maximum Likelihood (MLR) estimator, which proved to be suitable for data with sampling weights (Asparouhov, 2005). The special MPLUS analytical approach "TYPE=COMPLEX" was used, because it allowed us to take into consideration the hierarchical structure of the data analysed in the present study (students nested within classes) and to compute correct estimates and test statistics (Muthén & Muthén 2006). A structural equation modelling analysis (SEM) was performed in order to empirically test the civic engagement model. The model fit was assessed using the MLR chi-square test statistic and multiple fit indices (CFI, TLI, RMSEA, and SRMR; Hu & Bentler, 1999; Schreiber et al., 2006). A multi-group SEM analysis was then conducted in order to test the invariance of the model between boys and girls, thus exploring possible gender differences. This was done by comparing the full invariance model, in which cross-group equality constraints were imposed on the estimates of structural and measurement parameters, with the baseline model, in which only the parameters of the measurement part were kept equal but all structural parameters were estimated freely within the two groups (Byrne & van deVijver, 2010). The hypothesis of partial structural invariance (Kline, 2011) was also tested by releasing the structural parameters that, according to the modification indices provided by MPlus, contributed most to degradation in the fit of the full invariance model (Byrne, 2012). In accordance with the recommendations by Cheung and

Rensvold (2002), two tests were employed for comparing the nested models: the corrected chi-square difference test (because the analysis was based on MLR estimation; Satorra & Bentler, 2001), and the change in CFI values. Finally, the multi-group method was employed also to evaluate possible gender differences in the means of the latent variables included in the civic engagement model (e.g., Green & Thompson, 2012).

Prior to performing the analysis, the small amount of missing data (approximately 0.2% – 2.6%) was handled by means of the expectation-maximization procedure of IBM SPPS 19.0.

Results

Table 1 shows bivariate correlations between all the research variables along with the means and the standard deviations.

Table 1. Bivariate correlations, means and standard deviations of the research variables.

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
1.NISB	-																					
2.citeff1	.14	-																				
3.citeff2	.20	.51	-																			
4.citeff3	.12	.34	.37	-																		
5.citeff4	.07	.30	.28	.47	-																	
6.citeff5	.12	.39	.41	.31	.32	-																
7.citeff6	.08	.39	.32	.32	.33	.34	-															
8.polef1	.14	.27	.33	.28	.20	.27	.18	-														
9.polef2	.14	.35	.44	.31	.24	.30	.22	.54	-													
10.polef3	.14	.30	.37	.26	.22	.30	.20	.47	.47	-												
11.polef4	.11	.28	.39	.28	.22	.29	.22	.48	.52	.46	-											
12.polef5	.17	.28	.34	.27	.19	.27	.19	.42	.40	.37	.40	-										
13.polef6	.11	.28	.37	.26	.21	.30	.21	.46	.45	.57	.44	.45	-									
14.ckpv1	.38	.21	.30	.12	.07	.18	.12	.07	.19	.17	.14	.18	.13	-								
15.ckpv2	.38	.21	.29	.11	.07	.16	.12	.06	.19	.18	.13	.18	.13	.88	-							
16.ckpv3	.39	.22	.30	.12	.08	.18	.12	.06	.19	.18	.13	.17	.13	.88	.88	-						
17.ckpv4	.38	.21	.29	.11	.08	.17	.12	.05	.19	.17	.13	.17	.13	.89	.88	.89	-					
18.ckpv5	.39	.22	.29	.11	.08	.17	.11	.06	.19	.18	.13	.17	.13	.88	.89	.88	.89	-				
19.elec.part.	.22	.25	.32	.20	.17	.23	.18	.17	.28	.24	.20	.30	.25	.39	.40	.40	.40	.40	-			
20.pol.part.	.10	.24	.27	.34	.24	.24	.21	.33	.32	.27	.28	.39	.31	.02	.02	.02	.01	.01	.30	-		
21.inf.part.	.17	.40	.45	.33	.32	.37	.36	.35	.43	.34	.38	.40	.37	.15	.15	.15	.14	.15	.33	.54	-	
22.prot.part	.14	.37	.37	.30	.34	.33	.38	.28	.35	.26	.30	.31	.29	.19	.19	.19	.19	.19	.33	.43	.60	-
Means	.00	2.81	2.77	2.60	2.86	2.63	2.79	2.15	2.62	2.63	2.51	2.51	2.68	53.09	53.14	53.09	53.09	53.02	54.12	49.39	50.19	48.53
SD	1.00	.74	.82	.89	.84	.85	.88	.81	.82	.78	.82	.88	.81	8.78	8.69	8.80	8.83	8.82	9.10	9.46	9.41	8.25

Note: all the correlations are statistically significant with $p < .001$. NISB = National Index of Students' Socioeconomic Background; citeff = citizenship self-efficacy scale item; polef = internal political efficacy scale item; ckpv = civic knowledge plausible value; elec.part = expected electoral participation index; pol.part = expected participation in political activities index; inf.part. = expected informal political participation index; prot.part = expected participation in legal protest index.

All the correlations were positive and statistically significant (p< .001), demonstrating considerable associations between the constructs included in the civic engagement model.

The results of SEM analysis are shown graphically in Fig. 2, while parameter estimates and squared multiple correlations are exhibited in Table 2. The results show that the hypothesized model's fit indices were adequate and in line with general rules of acceptable fit (Hu and Bentler, 1999; Schreiber et al., 2006). On the basis of these results we decided to retain the model even though the chi-square was significant, also because this test is not completely reliable with large samples (Hu & Bentler, 1995). As a whole, the model explained 61% of the variance of civic engagement of Italian eighth grade students.

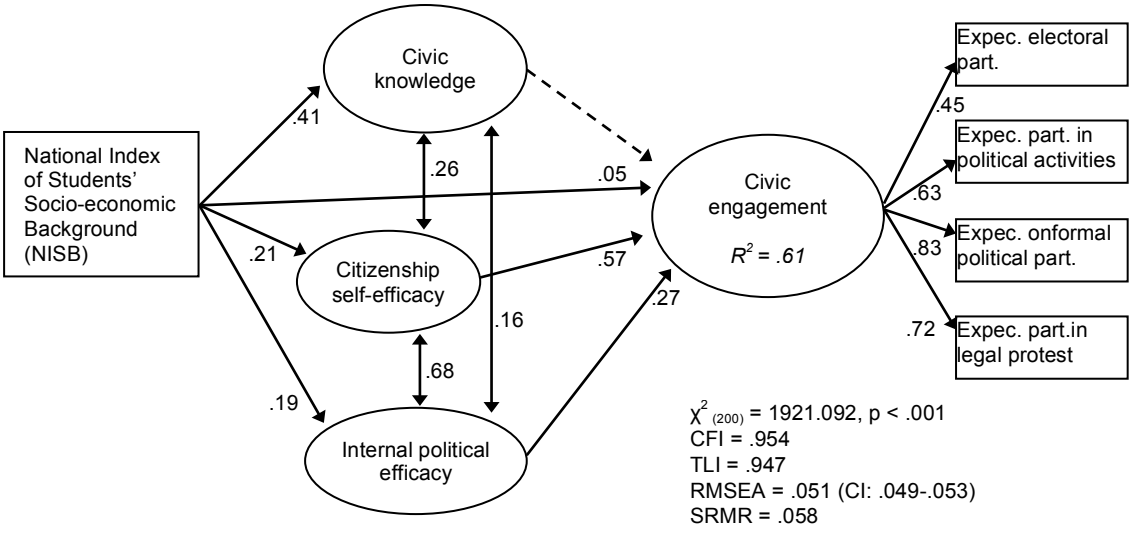

Figure 2. Structural equation modelling results. All parameters represented are standardized and statistically significant ($p < .01$). Dashed lines represent non-significant relationships.

Citizenship self-efficacy and internal political efficacy both had a significant direct impact on civic engagement but the influence of citizenship self-efficacy was twice than that of internal political efficacy. As expected, these variables also proved to be significantly correlated. Students' civic knowledge instead did not have a significant impact on civic engagement (p = .115) but proved to have significant positive reciprocal relationships with both citizenship self-efficacy and internal political efficacy.

Table 2. Parameter estimates and squared multiple correlations for the tested model.

Path coefficients	Unstandardized	S.E.	Standardized
NISB → Civic knowledge	3.362*	.136	.408
NISB → Internal political efficacy	.107*	.011	.191
NISB → Citizenship self-efficacy	.105*	.010	.214
NISB → Civic engagement	.209**	.069	.051
Civic knowledge → Civic engagement	-.014[ns]	.009	-.028
Citizenship self-efficacy → Civic engagement	4.751*	.385	.566
Internal political efficacy → Civic engagement	1.978*	.270	.271
Civic knowledge ↔ Citizenship self-efficacy	.925*	.083	.257
Civic knowledge ↔ Internal political efficacy	.673*	.082	.162
Internal political efficacy ↔ Citizenship self-efficacy	.179*	.009	.680
R^2	**Estimate**	**S.E.**	**Two-tailed p-value**
Civic Knowledge	.166	.012	.000
Civic engagement	.612	.022	.000
Citizenship self-efficacy	.046	.008	.000
Internal political efficacy	.036	.007	.000

Note: * $p < .001$; ** $p < .01$; ns = not significant

The socio-economic background of the students had a significant direct influence on all the other variables in the model: its influence on civic knowledge was twice than that on citizenship self-efficacy or internal political efficacy, and its influence on civic engagement was very small. Moreover, the total indirect effect of socio-economic background on civic engagement was also significant ($\beta = .16$; $p < .001$) and it was stronger than the direct effect.

Table 3 shows the results of the multi-group analysis, with the fit statistics for different types of hypotheses about structural invariance across gender for the civic engagement model. The table presents also the values of the difference tests ($\Delta\chi^2$ and ΔCFI) between the baseline model and each of the two hypotheses about structural invariance (full and partial invariance).

Table 3. Values of fit indices, χ^2 and CFI difference tests for hypotheses about the invariance of the civic engagement model across gender.

Invariance Hypothesis	χ^2	df	CFI	TLI	RMSEA (CI)	SRMR	$\Delta\chi^2$	Δdf	ΔCFI
Multi-group baseline model[a]	2129.73*	429	.955	.952	.049 (.047-.051)	.060	-	-	-
Full invariance of the structural model parameters[b]	2180.61*	439	.954	.951	.049 (.047-.051)	.064	50.843*	10	.001
Partial invariance of the structural model parameters[c]	2133.59*	435	.955	.952	.048 (.046-.050)	.062	6.791[ns]	6	.000

Note: * p<.001; [ns]not significant; [a] no equality constraints imposed on the estimates of the path coefficients of the model; [b]cross-group equality constraints imposed on the estimates of all the path coefficients of the model; [c]cross-group equality constraints were released for the following path coefficients: civic knowledge→civic engagement; NISB→civic knowledge; NISB→internal political efficacy; civic knowledge↔citizenship self-efficacy.

The hypothesis of partial invariance of the model across boys and girls was retained because the corrected chi-square difference test was not statistically significant (p = .347), ΔCFI was 0, and the partially invariant model showed good fit indices that were essentially the same as those of the baseline model (see Table 3). Although the majority of the relationships between the variables of the civic engagement model did not vary as a function of gender, differences between boys and girls were found in four of these relationships. Table 4 presents the parameter estimates for boys and girls for these four path coefficients. It also shows the results of the analysis of mean differences on the variables included in the model.

Table 4. Parameter estimates for the path coefficients freely estimated across boys and girls, means and mean differences across boys and girls for the variables included in the model

Path coefficients	Unstandardized		S.E.		Standardized	
	Boys	Girls	Boys	Girls	Boys	Girls
NISB → Civic knowledge	3.758*	2.983*	.183	.192	.441	.379
NISB → Internal political efficacy	.135*	.076*	.014	.013	.233	.145
Civic knowledge → Civic engagement	-.034**	.010^{ns}	.011	.013	-.068	.019
Civic knowledge ↔ Citizenship self-efficacy	.660*	1.157*	.097	.110	.187	.323
Variables	**Mean**		**S.E.**		**Mean differences (Girls-Boys)**	
	Boys	**Girls**	**Boys**	**Girls**		
NISB	.0234	.0229	.024	.025	.001^{ns}	
Civic knowledge	52.636	54.495	.544	.551	1.859*	
Internal political efficacy	2.791	2.683	.088	.086	-.108*	
Citizenship self-efficacy	2.335	2.368	.067	.069	.033^{ns}	
Civic engagement	31.715	32.360	1.729	1.759	.645*	

Note: * p < .001; ** p < .01; ns = not significant

As regards mean differences, civic knowledge and civic engagement proved to be significantly higher in girls than in boys, while internal political efficacy proved to be higher in boys than in girls. Boys and girls did not differ on socio-economic background and citizenship self-efficacy (p = .98 and p = .09, respectively).

As regards the gender differences in the relationships between the variables of the model, the influence of students' socio-economic background on civic knowledge and on internal political efficacy proved to be stronger for boys than for girls, while in girls civic knowledge had a stronger relationship with citizenship self-efficacy than in boys. Finally, the direct impact of

civic knowledge on civic engagement was not statistically significant for girls but had a very small, but statistically significant, negative effect in boys.

Discussion

In line with the theoretical frameworks (Schulz et al., 2008; Torney-Purta et al., 2010), the results of the present study confirmed that civic knowledge, efficacy beliefs, and socio-economic background play a pivotal role in adolescents' civic engagement. In fact, over 60% of the variance in overall civic engagement was accounted for by the tested model that included all of these factors. These findings extend previous knowledge because they have quantified the total impact on the overall civic engagement of factors that previously had only been studied independently, with various forms of political and civic participation considered separately.

Some important differences emerged as regards the specific impact of each factor on civic engagement. Citizenship self-efficacy and internal political efficacy proved to be the only factors that have a significantly positive and strong direct effect on civic engagement, in both boys and girls. A greater willingness to participate civically and politically is thus associated with the fact that adolescents believe themselves capable of performing activities related to citizenship participation or engaging in politics. As expected, the two forms of efficacy beliefs were significantly correlated, but the effect of citizenship self-efficacy on civic engagement was twice that of internal political efficacy. These results are consistent with previous findings (Ainley & Schulz 2011; Krampen, 2000; Pasek et al., 2008; Schulz et al., 2010; Solhaug, 2006), but they also extend them by demonstrating the positive influence of efficacy beliefs not only on specific areas of participation (e.g., voting) but also on overall civic engagement, as well as by underling the primary role of beliefs associated with citizenship activities in adolescents' everyday lives.

On the other hand, adolescents' civic knowledge did not have, on the whole, any significant impact on civic engagement and actually showed a slight negative influence in boys. The fact that adolescents are informed and understand civic matters may thus have different consequences in boys and girls and, in any case, it does not seem to increase the likelihood of their future participation in civic and political activities. This result was partially expected because previous research found that civic knowledge promoted only electoral participation, while it had no or very slight impact on other kinds of civic and political participation (Ainley & Schulz, 2011; Schulz, 2005; Schulz et al., 2010; Torney-Purta et al., 2001). Our findings, combined with those from previous studies, therefore suggest that civic knowledge can encourage adolescents' electoral participation, while it is not sufficient for them to get engaged when activities are more active and demanding (e.g., boycotting products, helping a party during the election campaign). Instead, efficacy beliefs seem to positively affect engagement in all kinds of activities. Although they are significantly correlated, civic knowledge and efficacy beliefs thus seem to play different roles in adolescents' civic engagement.

As expected, the socio-economic background of the students influenced all the other variables included in our study. In accordance with previous research (Schulz et al., 2010; Perliger et al., 2006; Torney-Purta et al., 2001), our findings confirmed that a higher socio-economic background is associated with higher levels of civic knowledge and efficacy beliefs. Moreover, they showed that adolescents' civic engagement is hardly influenced by their families' socio-economic background, with a mostly indirect effect due to its influence on civic knowledge and efficacy beliefs. Lastly, the findings revealed some gender differences: in boys socio-economic background proved to have a stronger influence on civic knowledge and internal political efficacy than in girls.

The multi-group analysis confirmed previous findings (e.g., Bobek et al., 2009; Schulz et al., 2010), by showing in girls higher levels of civic engagement and civic knowledge than in

boys, and it also extended them by revealing in boys higher levels of internal political efficacy than in girls. Moreover, the results of this analysis showed that, although the same pattern of factors can explain a substantial part of civic engagement in both boys and girls, there are similarities as well as differences in the magnitude of specific relationships. The similarities principally concern efficacy beliefs, which had the same positive effects on civic engagement in both boys and girls. The differences mostly regard civic knowledge and socio-economic background. However, further studies are needed to corroborate these preliminary findings and to better understand if civic knowledge could have a different role in the development of civic engagement in boys and in girls.

In conclusion, adolescents' civic engagement is considered a matter of primary importance, as it contributes to the health of societies and communities, and positively stimulates adolescents' personal development and their future civic and political participation. In this context, the current study provides valuable knowledge by clarifying which factors can really influence adolescents' civic engagement, considered inclusively, that is, integrating various different forms of political and civic participation. Adolescents' civic engagement appears not to be predetermined by the socio-economic status of their parents but it can be promoted, independently of whether they are male or female, by making them confident about their ability to participate effectively in political and civic issues. Civic knowledge alone does not seem sufficient to promote the participation of youth in more demanding activities than voting. To become civically or politically involved adolescents need to be confident about their effectiveness, especially in performing civic activities that are familiar in their everyday lives. From these results it is possible to derive some indications for the planning and implementation of programmes in schools aimed at encouraging adolescents to engage in political activities. In addition to increasing students' civic knowledge, these programmes should work to engender or improve their citizenship and political efficacy beliefs. In order to achieve this aim, schools

could adopt, for example, specific approaches and methods (e.g., experience of mastery, modelling) that are proven to successfully promote self-efficacy beliefs (Bandura, 1997).

Nevertheless, some limitations of our research should be noted. Firstly, our data was based on a cross-sectional design. Although the direction of the influences hypothesized in this study had a theoretical basis and was supported by previous studies, longitudinal studies are needed to corroborate our findings and to test the causal relationships. Secondly we made no hypothesis about the direction of the influences between efficacy beliefs and civic knowledge. A reciprocal relationship was chosen because the cross-sectional data did not allow us to make predictions about causal relationships when there were no strong theoretical reasons for them. Also in this case longitudinal studies would be useful to clarify this issue. Thirdly the findings of the present study are limited by the absence of data regarding young people's actual behaviours. Research on civic engagement in youth has extensively studied expectations of participation and the theory of reasoned action (Fishbein & Ajzen, 1975, 2010) has shown that behavioural expectations or intentions act as powerful mediating influences on actions: attitudes, experiences, and backgrounds influence actions thanks to their effects on people's intentions. A number of studies have shown a high level of consistency between intentions or expectations to vote and voting behavior (e.g., Fishbein & Ajzen, 1981; Granberg & Holmberg, 1990) and longitudinal studies have found a high stability and persistence in political attitudes, ideology, and participation over the life span (e.g., Jennings & Stoker, 2004). However, the very few studies that have investigated whether expected participation in adolescence can effectively predict actual participation during adulthood have had mixed results (e.g., Hooghe and Wilkenfeld, 2008). Further studies are thus needed in order to confirm that the promotion of expectations of participation can have a positive impact on actual participation. Finally, although the sample used in this study was representative of eight grade students, only Italian data was considered: future research should therefore be conducted in order to generalize our findings across various other nations and cultural contexts.

References

Ainley, J., & Schulz, W. (2011). Expected participation in protest activities among lower secondary students in 38 countries. Paper presented at the Annual Meetings of the American Educational Research Association in New Orleans, 8-12 April 2011. http://iccs.acer.edu.au/uploads/File/AERA2011/AERA_ICCS_ProtestActivities(NewOrleans2011).pdf. Accessed 6 March 2013.

Amnå, E. (2012). How is civic engagement developed over time? Emerging answers from a multidisciplinary field. *Journal of Adolescence 35*, 611–627.

Asparouhov, T. (2005). Sampling weights in latent variable modeling. *Structural Equation Modeling, 12*, 411-434.

Balch, G. (1974). Multiple indicators in survey research: The concept ‘‘sense of political efficacy’’. *Political Methodology, 1*, 1–43.

Bandura, A. (1997). *Self efficacy: the exercise of control*. New York: Freeman.

Bandura, A., Caprara, G.V., Barbaranelli, C., Gerbino, M., & Pastorelli C. (2003). Role of affective self-regulatory efficacy in diverse spheres of psychosocial functioning. *Child Development, 74*(3), 769–782.

Beaumont, E. (2010). Political agency and empowerment: pathways for developing a sense of political efficacy in young adults. In L. R. Sherrod, J. Torney-Purta, & C. A. Flanagan (Eds.), *Handbook of research on civic engagement in youth*. Hoboken, NJ: John Wiley & Sons Inc.

Bobek, D., Zaff, J., Li, Y., & Lerner, R.M. (2009). Cognitive, emotional, and behavioral components of civic action: Towards an integrated measure of civic engagement. *Journal of Applied Developmental Psychology, 30*, 615-627.

Brese, F., Jung, M., Mirazchiyski, P., Schulz, W., & Zuehlke, O. (2011). *ICCS 2009 User guide for the international database*. Amsterdam, The Netherlands: International Association for the Evaluation of Educational Achievement (IEA).

Brussino, S., Medrano, L., Sorribas, P., & Rabbia, H:H. (2011). Young adults’ knowledge of politics: evaluating the role of socio-cognitive variables using structural Equations. *The Spanish Journal of Psychology, 14*(1), 183-194.

Burns, N., Schlozman, K.L. & Verba S. (2001). *The private roots of public action. gender, equality, and political participation*. Cambridge: Harvard University Press.

Byrne, B.M. (2012). *Structural equation modeling with Mplus*. New York: Routledge.

Byrne, B.M. & van de Vijver, F.J.R. (2010). Testing for measurement and structural equivalence in large-scale cross-cultural studies: addressing the issue of nonequivalence. *International Journal of Testing, 10*(2)*,* 107-132.

Caprara, G.V., Barbaranelli, C., Pastorelli, C., & Cervone, D. (2004). The contribution of self-efficacy beliefs to psychosocial outcomes in adolescence: predicting beyond global dispositional tendencies. *Personality and Individual Differences, 37*, 751–763.

Cheung, G.W., & Rensvold, R.B. (2002). Evaluating goodness-of-fit indexes for testing measurement invariance. *Structural Equation Modeling: A Multidisciplinary Journal, 9*(2), 233-255

Cicognani, E., Zani, B., Fournier, B., Gavray, C., & Born, M. (2012). Gender differences in youths' political engagement and participation. The role of parents and of adolescents' social and civic participation. *Journal of Adolescence, 35*, 561–576.

Dahl, R.A. (1992). The Problem of civic competence. *Journal of Democracy, 3*(4)*,* 45-59.

Delli Caprini, M. X., & Keeter, S. (1996). *What Americans know about politics and why it matters*. New Haven, CT: Yale University Press.

Dudley, R.L., & Gitelson, A.R. (2002). Political literacy, civic education, and civic engagement: a return to political socialization? *Applied Developmental Science, 6*(4), 175-182.

Eckstein, K., Noack, P., & Gniewosz, B. (2012). Attitudes toward political engagement and willingness to participate in politics: Trajectories throughout adolescence. *Journal of Adolescence, 35*, 485–495

Ekman, J., & Amnå, E. (2012). Political participation and civic engagement: Towards a new typology. *Human Affairs, 22*(3), 283-300.

Fishbein, M., & Ajzen, I. (1975). Belief, Attitude, Intention, and Behavior: An Introduction to Theory and Research. Reading, MA: Addison-Wesley.

Fishbein, M., & Ajzen, I. (1981). Attitudes and voting behaviour: An application of the theory of reasoned action. In G. M. Stephenson & J. M. Davis (Eds.), *Progress in applied social psychology* (Vol. 1, pp. 95-125). London: Wiley.

Fishbein, M., & Ajzen, I. (2010). *Predicting and Changing Behavior. The Reasoned Action Approach*. New York: Taylor & Francis Group.

Flanagan, C.A., & Faison, N. (2001). Youth civic development: implications of research for social policy and rrograms. *Social Policy Report, 15*(1), 1-16.

Flanagan, C.A., & Sherrod, L.R. (1998). Youth political development: an introduction. *Journal of Social Issues, 54*(3), 447-456.

Flanagan, C. A., & Tucker, C. (1999). Adolescents' explanations for political issues: concordance with their views of self and society. *Developmental Psychology, 35*, 1198-1209.

Galston, W.A. (2001). Political knowledge, political engagement, and civic education. *Annual Review of Political Science, 4*, 217-234.

Ganzeboom, H. B. G., de Graaf, P. M. & Treiman, D. J. (1992). A standard international socioeconomic index of occupational status. *Social Science Research, 21*, 1–56.

Granberg, D., & Holmberg S. (1990). The Intention-Behavior Relationship Among U.S. and Swedish Voters. *Social Psychology Quarterly, 53*(1), 44-54.

Green, S.B., & Thompson, M.S. (2012). A flexible structural equation modeling approach for analyzing means. In R.H. Hoyle (Ed.), *Handbook of structural equation modelling*. New York, NY: The Guilford Press.

Haste, A., & Hogan, A. (2006). Beyond conventional civic participation, beyond the moral-political divide: young people and contemporary debates about citizenship. *Journal of Moral Education, 35*(4), 473–493.

Higgings-D'Alessandro, A. (2010). The transdisciplinary nature of citizenship and civic/political engagement evaluation. In L. R. Sherrod, J. Torney-Purta, C. A. Flanagan (Eds.), *Handbook of research on civic engagement in youth*. Hoboken, NJ: John Wiley & Sons Inc.

Hooghe, M., & Stolle, D. (2004). Good girls go to the polling booth, bad boys go everywhere: bender differences in anticipated political participation among American fourteen-year-olds. *Women & Politics, 26*(3/4), 1-23.

Hooghe, M., & Wilkendfeld, B. (2008). The stability of political attitudes and behaviors across adolescence and early adulthood: a comparison of survey data on adolescents and young adults in eight countries. *Journal of Youth Adolescence, 37*(2), 155–167

Hu, L., & Bentler, P. M. (1995). Evaluating model fit. In R. H. Hoyle (Ed.), *Structural equation modeling: concepts, issues, and applications*. Newbury Park, CA: Sage.

Hu, L.T., & Bentler, P.M. (1999). Cutoff criteria for fit indices in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling, 6*, 1-55.

International Labour Organisation (ILO). (1990). International Standard Classification of Occupations: ISCO-88. Geneva: International Labour Office.

Jahromi, P., Crocetti, E., & Buchanan C.M. (2012). A Cross- Cultural Examination of Adolescent Civic Engagement: Comparing Italian and American Community- Oriented and Political Involvement. *Journal of Prevention & Intervention in the Community, 40*(1), 22-36.

Jennings, M. K., & Stoker, L. (2004). Social trust and civic engagement across time and generations. *Acta Politica, 39*, 342–379.

Jugert, P., Eckstein, K., Noack, P., Kuhn, A., & Benbow A. (2013). Offline and online civic engagement among adolescents and young adults from three ethnic groups. *Journal of Youth and Adolescence, 42*(1), 123-135.

Kline, R.B. (2011). *Principles and practice of structural equation modeling*. (3rd ed.). New York, NY: The Guilford Press.

Krampen, G. (2000). Transition of adolescent political action orientation to voting behavior in early adulthood in view of a social-cognitive action theory model of personality. *Political Psychology, 21*(2), 277-297.

Luengo Kanacri, B.P., Rosa, V., & Di Giunta L. (2012): The mediational role of Values in linking personality yraits to civic engagement in Italian youth. *Journal of Prevention & Intervention in the Community, 40*(1), 8-21.

Mahatmya, D., & Lohman, B.J. (2012). Predictors and pathways to civic involvement in emerging adulthood: neighbourhood, family, and school influences. *Journal of Youth and Adolescence, 41*(9), 1168–1183.

Marzana, D., Marta E., & Pozzi M. (2012). Social action in young adults: Voluntary and political engagement. *Journal of Adolescence, 35*, 497-507.

Masters, G. N., & Wright, B. D. (1997). The partial credit model. In W. J. van der Linden & R. K. Hambleton (Eds.), *Handbook of modern item response theory* (pp. 101−122). New York and Berlin/Heidelberg, Germany: Springer.

Metzger, A., & Ferris, K. (2013). Adolescents' domain-specific judgments about different forms of civic involvement: Variations by age and gender. *Journal of Adolescence, 36*, 529–538.

Muthén, L.K., & Muthén, B.O. (2006). *Mplus user's guide* (6th ed.). Los Angeles, CA: Muthén & Muthén.

Obradovic, J., & Masten, A.S. (2007). Developmental antecedents of young adult civic engagement. *Applied Developmental Science, 11*(1), 2-19.

OECD. (2012). *PISA 2009 Technical Report*. PISA, OECD Publishing

Pasek, J., Feldman, L., Romer, D., & Jamieson, K. (2008). Schools as incubators of democratic participation: building long-term political efficacy with civic education. *Applied Developmental Science, 12*(1), 236−237.

Pastorelli, C., Caprara, G.V, Barbaranelli, C., Rola, J., Rozsa, S., & Bandura, A. (2001). The structure of children's perceived self-efficacy: a cross-national study. *European Journal of Psychological Assessment, 17*(2), 87–97.

Perliger, A., Canetti-Nisim, D., & Pedahzur, A. (2006). Democratic attitudes among high-school pupils: The role played by perceptions of class climate. *School Effectiveness and School Improvement, 17*(1), 119-140.

Rasch, G. (1960). *Probabilistic models for some intelligence and attainment tests*. Copenhagen, Denmark: Nielsen & Lydiche.

Satorra, A., & Bentler, P.M. (2001). A scaled difference chi-square test statistic for moment structure analysis. *Psychometrika, 66*, 507-514.

Schmid, C. (2012). The value "social responsibility" as a motivating factor for adolescents' readiness to participate in different types of political actions, and its socialization in parent and peer contexts. *Journal of Adolescence 35*, 533–547

Schreiber, J.B., Nora, A., Stage, F.K., Barlow, E.A., & King, J. (2006). Reporting structural equation modeling and confirmatory factor analysis results: A review. *Journal of Educational Research, 99*, 323-337.

Schulz, W. (2005). Political efficacy and expected political participation among lower and upper secondary students. Paper presented at the ECPR General Conference in Budapest, 8 - 10 September.
http://iccs.acer.edu.au/uploads/File/papers/ECPR2005_SchulzW_EfficacyParticipation.pdf. Accessed 6 March 2013.

Schulz, W. (2009). Questionnaire construct validation in the International Civic and Citizenship education Study. *IERI Monograph Series, Volume 2*, 113-135.

Schulz, W., Ainley, J., & Fraillon, J. (2011). *ICCS 2009 Technical Report*. Amsterdam, The Netherlands: International Association for the Evaluation of Educational Achievement (IEA).

Schulz, W., Ainley, J., Fraillon, J., Kerr, D., & Losito, B. (2010). *ICCS 2009 International Report: Civic knowledge, attitudes, and engagement among lower secondary school students in 38 countries*. Amsterdam, The Netherlands: International Association for the Evaluation of Educational Achievement (IEA).

Schulz, W., Fraillon, J., Ainley, J., Losito, B., & Kerr, D. (2008). *International Civic and Citizenship Education Study: Assessment framework*. Amsterdam, The Netherlands: International Association for the Evaluation of Educational Achievement (IEA).

Sherrod, L.R., Flanagan, C., & Youniss, J. (2002). Dimensions of citizenship and opportunities for youth development: The What, Why, When, Where, and Who of Citizenship Development. *Applied Developmental Science, 6*(4), 264–272.

Sherrod, L.R, Torney-Purta, J., & Flanagan, C. (2010). Research on the development of citizenship: a field comes of age. In L. R. Sherrod, J. Torney-Purta, C. A. Flanagan (Eds.), *Handbook of research on civic engagement in youth*. Hoboken, NJ: John Wiley & Sons Inc.

Solhaug, T. (2006). Knowledge and self-efficacy as predictors of political participation and civic attitudes. *Policy Futures in Education, 4*(3), 265-278.

Torney-Purta, J., Amadeo, J.A., & Andolina, M.W. (2010). A conceptual framework and multimethod approach for research on political socialization and civic engagement. In L. R. Sherrod, J. Torney-Purta, C. A. Flanagan (Eds.) *Handbook of research on civic engagement in youth*. Hoboken, NJ: John Wiley & Sons Inc.

Torney-Purta, J., Lehmann, R., Oswald, H., & Schulz, W. (2001). *Citizenship and education in twenty eight countries*. Amsterdam: International Association for the Evaluation of Educational Achievement (IEA).

UNESCO (2006). *International Standard Classification of Education: ISCED 1997*. Montreal, Quebec, Canada: UNESCO Institute for Statistics.

Vecchione, M., & Caprara, G.V. (2009). Personality determinants of political participation: The contribution of traits and self-efficacy beliefs. *Personality and Individual Differences, 46*, 487–492

Verba, S., Scholzman, K.L., & Brady, H. (1995). *Voice and equality: civic voluntarism in American politics*. Cambridege, MA: Harvard University Press.

Walker, T. (2002). Service as a pathway to political participation: what research tells us. *Applied Developmental Science, 6*(4), 183–188.

Wolak, J., & McDevitt, M. (2011). The roots of the gender gap in political knowledge in adolescence. *Political Behavior, 33*(3),505-533

World Bank. (2007). *World development report 2007: Development and the next generation*. Washington, DC: Author

Youniss, J., Bales, S., Christmas-Best, V., Diversi, M., McLaughlin, M., & Silbereisen, R. (2002). Youth civic engagement in the twenty-first century. *Journal of Research on Adolescence, 12*(1), 121-148.

Zaff, J., Boyd, M., Li, Y., Lerner, J.V., & Lerner, R.M. (2010). Active and engaged citizenship: multi-group and longitudinal factorial analysis of an integrated construct of civic engagement. *Journal of Youth and Adolescence, 39*(7), 736–750.

Zimmerman, M.A. (1989). The relationship between political efficacy and citizen participation: construct validation studies. *Journal of Personality Assessment, 53*(3), 554-566.

CHAPTER 4

Civic engagement in adolescent students: the role of an open classroom climate and citizenship self-efficacy

Abstract

The aims of the present study were to examine the influences of an open classroom climate on adolescent students' overall civic engagement and to investigate whether a mediation process based on students' efficacy beliefs can explain these influences. Multilevel Structural Equation Modelling techniques were employed to examine data from the International Civic and Citizenship education Study, collected from 3352 eighth grade Italian students. The socio-economic background of the students was included as a covariate in order to control for possible confounding effects. The results revealed that students' civic engagement was positively influenced by an open classroom climate and that this influence was mediated by students' citizenship self-efficacy. The effects were independent from the socio-economic background of the students, and the civic engagement of the individual student was encouraged as well as of the class as a whole. These results extend our understanding of civic engagement in youth, and can positively influence policies that aim to promote it.

Keywords: civic engagement; efficacy beliefs; open classroom climate; multilevel structural equation modelling; IEA ICCS 2009.

Introduction

Civic engagement in youth has long been regarded as the foundation of civic and political involvement in adulthood, since adolescence and the transition to adulthood are developmental periods when civic beliefs, values and commitments take shape (Erikson, 1968; Finlay, Wray-Lake, & Flanagan, 2010; Flanagan & Sherrod, 1998; Niemi & Hepburn, 1995). Civic engagement in adolescents is considered critical for the health of communities, economies, governments, and societies (World Bank, 2007) and it is regarded as a sign of the successful and healthy development of the person (e.g., Lerner, Phelps, Forman, & Bowers, 2005).

Civic engagement is a complex and multifaceted phenomenon that is best described by using multiple components (Bobek, Zaff, Li, & Lerner, 2009; Ekman & Amnå, 2012; Higgings-D'Alessandro, 2010; Luengo Kanacri, Rosa, & Di Giunta, 2012; Sherrod, Torney-Purta, & Flanagan, 2010; Zaff, Boyd, Li, Lerner, & Lerner, 2010). It has often been measured in terms of electoral and formal political participation (voting or intending to vote, or being a member of a political party; e.g., Obradovic & Masten, 2007; Walker, 2002), but several studies have also emphasized the need to refer also to newer and less formal forms of engagement (e.g., internet

activism and signing petitions), especially as regards adolescents (e.g., Haste & Hogan, 2006; Jugert, Eckstein, Noack, Kuhn, & Benbow, 2013; Marzana, Marta, Pozzi, 2012; Youniss et. al., 2002). Since adolescents have limited opportunities to participate as active citizens, at least until they come of age, research has often focused on their expectations or intentions to participate in political and civic activities, considering them as predictive of future engagement (Eckstein, Noack, & Gniewosz, 2012; Hooghe & Wilkenfeld, 2008; Schulz, Ainley, Fraillon, Kerr, & Losito, 2010; Schmid, 2012; Torney-Purta, Lehmann, Oswald, & Schulz, 2001). The current study has therefore assessed adolescents' overall civic engagement by means of a multi-componential construct, which includes their behavioural expectations to participate in formal political activities as well as in informal and new civic activities (cf. chapter 2).

Given the importance of civic engagement, there is a need for studies that can show how it is developed in youth and which factors can facilitate this process (e.g., Amnå, 2012). Thanks to this knowledge the efficacy of policies and projects to promote and sustain adolescents' engagement may be reinforced.

Some recently developed conceptual frameworks have proposed that multi-level structures of contexts including the wider community, schools and classrooms, and the context of the individual, can influence the civic engagement of youth (Schulz, Fraillon, Ainley, Losito, Kerr, 2008; Torney-Purta, Amadeo, Andolina, 2010). The present study focuses on one aspect of the classroom context and one aspect of the individual context that are considered as core elements for the development of civic engagement in youth: an open classroom climate and students' self-efficacy referring to civic and political activities (e.g., Torney-Purta, 2002; Verba Scholzman, & Brady, 1995). A number of studies have shown that self-efficacy in civic and political issues is one of the strongest predictors of adolescents' civic engagement (e.g., Ainley & Schulz, 2011; Hooghe & Quintelier, 2011; Manganelli, Alivernini, Lucidi, & Di Leo, 2012; Solhaug, 2006) and that an open classroom climate positively influences students' political

engagement (Amadeo, Torney-Purta, Lehmann, Husfeldt, & Nikolova, 2002; Campbell, 2008; Hooghe & Dassonneville, 2011; Hooghe & Quintelier, 2011; Manganelli et al., 2012; Torney-Purta et al., 2001) and support students' self-efficacy (Levy, 2013; Perliger, Canetti-Nisim, & Pedahzur, 2006). However, much of this research has focused on a narrow set of civic activities, especially voting, rather than on the multiple dimensions of civic engagement. In addition, empirical studies have mainly investigated the influence of an open classroom climate on students' civic engagement and efficacy beliefs separately, without clarifying the relationships between these variables. Finally, there is a lack of studies aiming to explain exactly how an open classroom climate can enhance students' civic engagement.

The present study contributes to the research on youth civic engagement by examining the influences of an open classroom climate on adolescent students' overall civic engagement and by exploring whether a mediation process centred on students' efficacy beliefs can explain these influences. Since the previous research (Mahatmya & Lohman 2012; Marzana et al., 2012; Perliger, et al., 2006; Schulz et al. 2010; Torney-Purta et al., 2001) has demonstrated that students' socio-economic background can affect all the constructs in the present study (i.e., civic engagement, self-efficacy, and open classroom climate), potentially confounding effects have been eliminated by controlling for this variable.

The first part of this paper reviews the research literature on the relationships between adolescents' civic engagement, open classroom climate, efficacy beliefs, and socio-economic background. The aims, methods, and results of our empirical study are then described. Finally, we discuss our main results, also examining their implications for programmes that aim to promote civic engagement in youth, as well as for future research.

Open classroom climate and students' civic engagement

Schools and classrooms are among the first representations of wider society for young people. Children are introduced to democratic processes for the fits time in classrooms and they

have opportunities for practicing civic skills (Astuto & Ruck, 2010). Several studies have shown that students' willingness to engage in politics is influenced by the specific school or classroom they have attended. In fact, although students' individual characteristics are the most important factors, an estimated 8%-13% of the variability in students' expectations to participate in politics is accounted for by the characteristics of their school (Hooghe & Dassonneville, 2011; Hooghe & Quintelier, 2011; Hoskins, Janmaat, & Villalba, 2012; Quintelier, 2010).

There is substantial agreement in the literature on the fact that an open climate is one of the characteristics of the classroom that is particularly effective in promoting students' civic engagement (Hooghe & Quintelier, 2011). An open classroom climate has been described in various different ways (e.g., Campbell, 2008; Ichilov, 2003; Schulz et al., 2008; Torney-Purta et al., 2001), but all these definitions refer to the possibility to freely discuss political and social issues in the classroom and to develop a personal opinion on them (Hooghe & Quintelier, 2011).

Students' perception of a classroom climate that is open to discussion of political and social issues has frequently been found to be a positive predictor of specific forms of civic engagement, such as students' expectations to vote as an adult (Amadeo et al., 2002; Campbell, 2008; Hooghe & Dassonneville, 2011; Hooghe & Quintelier, 2011; Manganelli et al., 2012; Torney-Purta et al., 2001). It has also been found to positively influence students' expectations to participate in legal protest activities and in informal political activities, while having no influence on their expectations of active political participation (Hooghe & Dassonneville, 2011; Hooghe & Quintelier, 2011). Only a few studies have investigated the effects of an open classroom climate using more inclusive constructs of civic engagement (Flanagan, Syvertsen, & Stout, 2007; Hoskins et al., 2012; Perliger et al., 2006), although without examining the newer forms of participation (e.g., consumer or Internet activism), and these have confirmed the positive influences of an open classroom climate.

Following on from these results, the present study empirically tests the assumption that an open classroom climate influences students' overall civic engagement, taking into consideration various forms (both traditional and more recent) of civic and political participation.

Citizenship self-efficacy as a mediating variable

Previous research has not yet clarified precisely how an open classroom climate enhances students' civic engagement (Quintelier, 2012). In the present study we propose that a mediation process centred on students' citizenship efficacy beliefs constitutes an important mechanism to explain this influence.

Citizenship self-efficacy refers to the adolescents' beliefs about their capability to perform different activities regarding citizenship participation in at or outside school (Schulz et al., 2008) and it is closely related to the general concept of self-efficacy (Bandura, 1997). This construct differs from the concept of internal political efficacy that has been widely studied in adults and that refers to individuals' confidence in their ability to understand politics and to act politically (e.g., Balch, 1974; Vecchione & Caprara, 2009; Zimmerman, 1989). Considering the limited opportunities of adolescents to actively participate in politics, citizenship self-efficacy refers to civic activities that are more familiar in young people's everyday lives, such as organizing groups of students in order to achieve changes at school (Ainley & Schulz, 2011; Schulz et al., 2008; Solhaug, 2006).

Citizenship self-efficacy has proved to be a positive predictor of young people's expectations of electoral participation, active political participation, participation in legal protests, and informal political activities (Ainley & Schulz, 2011; Hooghe & Quintelier, 2011; Manganelli et al., 2012; Schulz et al., 2010; Solhaug, 2006). Efficacy beliefs are essential for civic engagement of adolescents because if they do not feel able to interact effectively with the

political system and civic issues, they will tend to avoid opportunities for involvement (Beaumont, 2010; Pasek et al., 2008).

Bandura (1997) identified four factors that contribute to the development of self-efficacy beliefs: mastery experiences, observations of successful models, verbal encouragement, and physiological states. As regards citizenship self-efficacy it has been suggested that adolescents can experience these promoting factors in classrooms where discussions and reasoning about political and social issues are encouraged, where they can safely disagree with each other and with the teacher, and where they can develop their debating skills and exercise tolerance (e.g., Levy, 2013; Pasek et al., 2008). The presence of an open and democratic classroom climate has proved to positively influence students' political efficacy (Levy, 2013; Pasek, Feldman, Romer, & Jamieson, 2008; Perliger et al., 2006).

The present study investigates the mediating role of students' citizenship self-efficacy on the relationship between open classroom climate and students' civic engagement. On the basis of the research literature, we argue that an open classroom climate leads to higher efficacy beliefs, which in turn positively influence students' overall civic engagement.

Socio-economic background as a control variable

Adolescents' socio-economic background usually refers to the parents' occupational status and the educational level and to the family's literacy resources (e.g., Schulz et al. 2008; OECD, 2012). It has been described as an antecedent that shapes knowledge, skills, dispositions, and self-beliefs (Schulz et al. 2008; Torney-Purta et al. 2010). Various studies have shown that a higher socio-economic status is linked to a higher likelihood of political and civic participation (Hooghe & Dassonneville, 2011; Hoskins et al., 2012; Mahatmya and Lohman 2012; Marzana et al., 2012; Perliger et al. 2006), but according to other studies adolescents' socio-economic background has negligible positive effects on expected electoral participation and not significant or even negative effects on active political participation (Schulz et al. 2010). The impact of

students' socio-economic background on their civic engagement was found to be influenced by their exposure to an open classroom climate at school (e.g., Perliger et al., 2006), which partially compensated for the disadvantage of a low socio-economic status (Campbell, 2008). The level of education of fathers has been shown to have a significant positive impact on their sons and daughters' political efficacy beliefs (Perliger et al., 2006), but other studies have laid claim to insignificant or rather weak effects of students' socio-economic background on their efficacy beliefs (Schulz, 2005; Solhaug, 2006).

On the basis of this literature, in the present study we hypothesize that students' socio-economic background influences all the other constructs taken into consideration (i.e., civic engagement, classroom climate and citizenship self-efficacy) and we consider it as covariate, in order to study the relationships between the other variables, while controlling for possible confounding effects.

The present study

The findings of previous studies suggest that an open classroom climate can positively influence the development of specific forms of civic engagement in students. Very few studies, however, have documented its effects on a more general and comprehensive construct of overall civic engagement and none have included also the new forms of civic participation. There is evidence that an open classroom climate and students' citizenship self-efficacy can positively influence students' civic engagement, and the literature suggests that an open classroom climate should enhance students' citizenship self-efficacy. Nevertheless, there is still a lack of empirical studies documenting and clarifying the relationships between all these three variables.

In order to address these shortcomings, the present study aims to examine the relationship between an open classroom climate and students' overall civic engagement, and to explore the possibility that citizenship self-efficacy might play a mediating role in this relationship.

Therefore, on the basis of the research literature summarized above, we developed and tested the following hypotheses:

H1: an open classroom climate positively influences students' overall civic engagement;

H2: students' citizenship self-efficacy mediates, at least partially, the relationship between an open classroom climate and students' overall civic engagement.

The hypotheses were tested by performing Multilevel Structural Equation Modelling (ML-SEM) analysis on the Italian data from the International Civic and Citizenship Study 2009 (ICCS 2009; Schulz et al., 2010). ML-SEM was chosen because it allowed us to control for measurement error while also taking into account the multilevel structure that characterized our hypotheses and data (students nested within classrooms). To the best of our knowledge, this is the first study to use this analytic approach in order to investigate factors associated with students' civic engagement. In addition, the potentially confounding effects of socio-economic background were controlled for, so that we could better understand the relationships between the substantive variables of the present study.

Method

Participants and procedure

The data analysed in the present study came from 3352 Italian eighth grade students who took part in the International Civic and Citizenship education Study (ICCS 2009; Schulz et al., 2010) conducted by the International Association for the Evaluation of Education Achievement (IEA). The purpose of this project was to investigate the extent to which young people are prepared to undertake their roles as citizens. The average age of the students' was 13.81 years (SD = 0.50) and 51.9% of the students were male. Participating students were sampled using the stratified two-stage probability design defined by the IEA (Schulz, Ainley, & Fraillon, 2011). In the first stage, 172 schools were sampled from the population of Italian lower secondary schools

with a probability proportional to their size. In the second stage, one full class of eight graders (corresponding to the third year of lower secondary school in Italy) was randomly selected in each school, and all the students in each of these classes were assessed for the survey. The population coverage was 100% and students' participation rate was 96.6% (Schulz et al. 2011). Due to the complex structure of the student sample, appropriate sampling weights were applied in the data analysis so as to accommodate for unequal selection probabilities (Brese et al., 2011; Schulz et al., 2011).

All the participating students were asked to complete the Student Questionnaire according to the IEA ICCS assessment protocol that is described in detail in the Technical Report (Schulz et al., 2011). Each participating school gave its informed consent. During the first part of an ordinary school day data was collected in the classes by teachers trained by the researchers. The test administrator was not allowed to be a teacher of the sampled class. The participants were given a brief, standardized introduction about the purpose of the study and they were assured of its confidentiality. Then they were given instructions on how to complete the questionnaire.

Measures

All the variables in the present study were measured using the Student Questionnaire provided by the IEA ICCS assessment (Italian and English versions of the items are reported in the Appendix). The details of the development of this instrument, including statistical information on item parameters and scales factor structure have been covered in detail elsewhere (Schulz, 2009; Schulz et al., 2011) and therefore will be not described here.

Civic engagement

Four questionnaire scales were used to measure students' overall civic engagement (cf. Chapter 2). In each of the scales, students were asked to rate the probability with which they expected to take part in various different activities, using a 4-point response scale (ranging from

"I will certainly do this" to "I will certainly not do this"). A three-item scale measured students' expected electoral participation (e.g., "to vote in national elections"). A four-item scale assessed students' expected participation in political activities (e.g., "to help a candidate or party during an election campaign"). Expected informal political participation was measured using a four-item scale (e.g., "to contribute to an online discussion forum about social and political issues"). Finally, a six-item scale rated students' expectations to participate in legal protest (e.g., "taking part in a peaceful march or rally"). The reliability of the four scales (Cronbach's alpha) was .82, .81, .79 and .75, respectively (Schulz et al., 2011).

Open classroom climate

A six-item scale assessed students' perception about the presence of an open classroom climate. On a 4-point scale ranging from "never" to "often" students were asked to rate how frequently various different events occurred during regular lessons that included discussions of political and social issues (e.g., "Teachers encourage students to make up their own minds"; "Students express opinions in class even when their opinions are different from most of the other students"). The scale's reliability was .76 (Schulz et al., 2011).

Citizenship self-efficacy

A six-item scale assessed citizenship self-efficacy. Students were asked to rate (on a 4-point scale ranging from "Very capable" to "Not at all capable") how capable they thought they would be in performing various different activities related to citizenship participation at or outside school (e.g., "Argue your point of view about a controversial political or social issue"; "Organize a group of students in order to achieve changes at school"). The scale's reliability was .80 (Schulz et al., 2011).

National Index of Students' Socioeconomic Background (NISB)

The NISB was derived from three different indices (Schulz et al. 2011): highest occupational status of parents (HISEI), highest educational level of parents (HISCED), and home literacy resources (HOMELIT). HISEI was computed by assigning ISCO codes (International Labour Organization, 1990) to the students' answers to open-ended questions about their parents' jobs, and then mapping these codes to the International Socioeconomic Index of Occupational Status (ISEI; Ganzeboom et al., 1992). HISCED was computed using students' reports on the level of education of their parents (multiple choice item) based on the six categories of the International Standard Classification of Education (ISCED; UNESCO, 2006). For both HISEI and HISCED, the highest of the indices of either parent was used. HOMELIT was computed on the basis of a question that asked students how many books they had in their homes (multiple choice item with answers ranging from "0 to 10 books" to "More than 500 books").

Data analysis

The hierarchical data structure (students nested within classes) of the present study required a multilevel analysis approach (Hox, 2010). All analyses were conducted using the multilevel structural equation module (ML-SEM) of Mplus 6.0 (Muthén & Muthén, 2006) with latent aggregation (Ludtke et al., 2008; Marsh et al., 2009; Muthén & Asparouhov, 2012) and the Robust Maximum Likelihood (MLR) estimator, which has proved to be suitable for data with sampling weights (Asparouhov, 2005). ML-SEM offers considerable advances over conventional multilevel modelling procedures. It allows integration of observed and latent variables, estimation of direct and indirect effects, and separate (and theoretically unbiased) estimation of the effects at each level of the hierarchy, which appropriately distinguishes between (cluster) effects and within (cluster) effects (Heck & Thomas, 2009; Ludtke et al., 2008; Marsh et al., 2009; Metha & Neale, 2005; Muthén & Asparouhov, 2012; Preacher, Zyphur, & Zhang, 2010).

Prior to the ML-SEM analysis, the small amount of missing data (approximately 0.2% – 2.6%) was handled by means of the expectation-maximization procedure of IBM SPPS 19.0. An index was derived from each of the questionnaire scales and used in the ML-SEM analysis. NISB scores were computed (Schulz et al., 2011) using the factors scores from a principal component analysis performed on the three indices, HISEI, HISCED, HOMELIT, mentioned above. The Partial Credit Model for scaling and weighted likelihood estimation (Masters & Wright, 1997) was used to obtain individual student scores (Schulz et al., 2011) on perceptions of open classroom climate, on citizenship self-efficacy, and on each of the four scales of overall civic engagement. The data analysis was conducted using these indices in order to preserve the meaning that was defined for each construct in the ICCS 2009 study (Schulz et al., 2010). This procedure cuts down the number of the variables in the analysis and thus helps to avoid the problems with convergence that frequently occur with ML-SEM when there are too many parameters.

All the SEM carried out in the present study consisted of two levels, a within-class level (examining effects at the student level within classes) and a between-classes level (examining effects between classes). Effects at the two levels were estimated simultaneously. All the variables were assessed at the student level and were included in the multilevel models as having both between and within variance components (see below). The model fit was judged on conventional criteria, employing both the MLR chi-square test statistic and several fit indices (CFI, TLI, RMSEA; Hu & Bentler, 1999; Schreiber et al., 2006). In accordance with our hypotheses, ML-SEM analyses were performed in three steps.

In a preliminary step, a Multilevel Confirmatory Factor Analysis (MCFA) was performed in order to test the hypothesized factor structure of the overall civic engagement construct (cf. Chapter 2) and to separate its variance into within and between parts (Mehta & Neale, 2005). Civic engagement was modelled, both at the within-class level and at the between-classes level,

as a latent construct measured by the four indicators derived from the scales previously described: expected electoral participation, expected participation in political activities, expected informal political participation, and expected participation in legal protest. Cross-level measurement invariance was established comparing the fit of two nested models using the chi-square difference test based on log-likelihood values (Heck & Thomas, 2009; Mehta & Neale, 2005): (a) a configural invariance model, in which a single factor model was assumed to hold for civic engagement at both levels, but factor loadings were allowed to vary between the levels; and (b) a factorial invariance model in which factor loadings were constrained so as to be equal between the two levels. The constrained model was then employed to estimate the intra-class correlation (Heck & Thomas, 2009; Mehta & Neale, 2005).

In the second phase, Hypothesis 1 was tested with a ML-SEM, which examined the influences of open classroom climate on students' overall civic engagement while controlling for students' socio-economic background (Openness model). Open classroom climate was entered into the model as a predictor of civic engagement with a random intercept. Students' socio-economic background was specified as a covariate at both levels. At the between level it was modelled by the latent aggregation procedure of Mplus which treats the students data as indicators of the class average (Asparouhov & Muthén, 2006; Ludtke et al., 2008).

In the third phase, the relationship between classroom climate and students' civic engagement was analysed in more detail by testing Hypothesis 2. A multilevel Partial Mediation Model (Preacher et al., 2010) was specified by entering citizenship self-efficacy into the Openness model as a mediator for the relationship between open classroom climate and civic engagement. A random intercept was specified for citizenship self-efficacy. Mediation was assessed by inspecting the fit of the mediation model (Preacher et al., 2010) and by comparing the results of this model with those of the Openness model. The mediating variable effect was evaluated by examining the size and statistical significance of the direct effect an of open

classroom climate on civic engagement after the introduction of citizenship self-efficacy, as well as by testing the statistical significance of the indirect effect mediated by citizenship self-efficacy (MacKinnon, Fairchild, Fritz, 2007; MacKinnon, Lockwood, Hoffman, West, Sheets, 2002).

Results

Table 1 presents the correlations between the variables under investigation. We also calculated the intra-class correlations (ICC) for all variables to estimate the amount of variance within-classes and between-classes.

Table1. Correlations and intra-class correlations of the study variables

Variables	1	2	3	4	5	6	7
1. open.clim.	-	0.410	0.403	0.478	0.224	0.469	0.013
2. cit.eff.	0.254	-	0.674	0.522	0.637	0.861	0.506
3. prot.part.	0.188	0.517	-	0.193	0.618	0.874	0.149
4. elec.part.	0.217	0.363	0.338	-	0.335	0.510	0.650
5. pol.part.	0.088	0.402	0.415	0.327	-	0.807	0.366
6. inf.part.	0.210	0.53	0.594	0.342	0.544	-	0.363
7. NISB	0.116	0.128	0.132	0.184	0.081	0.161	-
ICC	0.078	0.069	0.056	0.046	0.036	0.064	0.292

Note: Correlations at the between-classes level are shown above the diagonal. Correlations at the individual level are shown below the diagonal.; open.clim. = open classroom climate index; cit.eff. = citizenship self-efficacy index; prot.part = expected participation in legal protest index; elec.part = expected electoral participation index; pol.part = expected participation in political activities index; inf.part. = expected informal political participation index; NISB = National Index of Students' Socioeconomic Background.

In the preliminary phase of analysis, ML-CFA was employed to test the hypothesized factor structure of the overall civic engagement construct. The results showed a good fit of the configural invariance model of civic engagement: $\chi^2_{(5)} = 36.04$; $p < .001$; CFI = .985; TLI = .964; RMSEA = .043. The fit indices were as good or better in the factorial invariance model: $\chi^2_{(8)} = 44.410$; $p < .001$; CFI = .982; TLI = .973; RMSEA = .037. The log-likelihood difference between the two nested models was not statistically significant ($\chi^2_{(5)} = 4.81$; p=.187), indicating that the hypothesis of measurement invariance across-level cannot be rejected. On the basis of

these results we decided to retain the model with invariant across-level factor loadings even though the chi-squared test for this model was significant, also because it is not completely reliable when used with large samples (e.g., Hu & Bentler, 1995). The parameter estimates of the civic engagement multilevel factor model are presented in Table 2.

Table 2. Unstandardized indicator loadings and residual variances of the multilevel factor model of civic engagement (factor loadings constrained as to be equal across levels)

Measure	Loading (SE)	Residual Variance (SE)
	Within classes	
Expected electoral participation	1.00[a] (0.00)	33.00 (1.86)
Expected political participation	1.54 (.08)	63.63 (2.67)
Expected informal political participation	2.01 (.11)	53.08 (2.54)
Expected participation in legal protest	1.45 (.08)	23.77 (2.39)
	Between classes	
Expected electoral participation	1.00[a] (0.00)	1.04 (.46)
Expected political participation	1.54 (.08)	2.92 (.96)
Expected informal political participation	2.01 (.11)	1.20 (.66)
Expected participation in legal protest	1.45 (.08)	0.00[b] (.00)

Note: all the factor loadings estimates are statistically significant with $p < .001$.[a]Loading set to one to achieve model identification, not tested for statistical significance. [b] Variance constrained to zero in order to avoid estimation problems (Heck & Thomas, 2009).

The same factor structure was thus confirmed for civic engagement at both the between-classes and at the within-class level. The intra-class correlation was .08, indicating that 8% of the variance of overall students' civic engagement lies between classes. This was a sufficient between-group variation for us to proceed with a multilevel analysis (e.g., Duncan & Raudenbusch, 1999; Julian, 2001).

In the second phase of analysis Hypothesis 1 was tested by the means of a ML-SEM analysis on the Openness Model. The results are shown in Figure 1 and parameter estimates (standardized and unstandardized) are exhibited in Table 3.

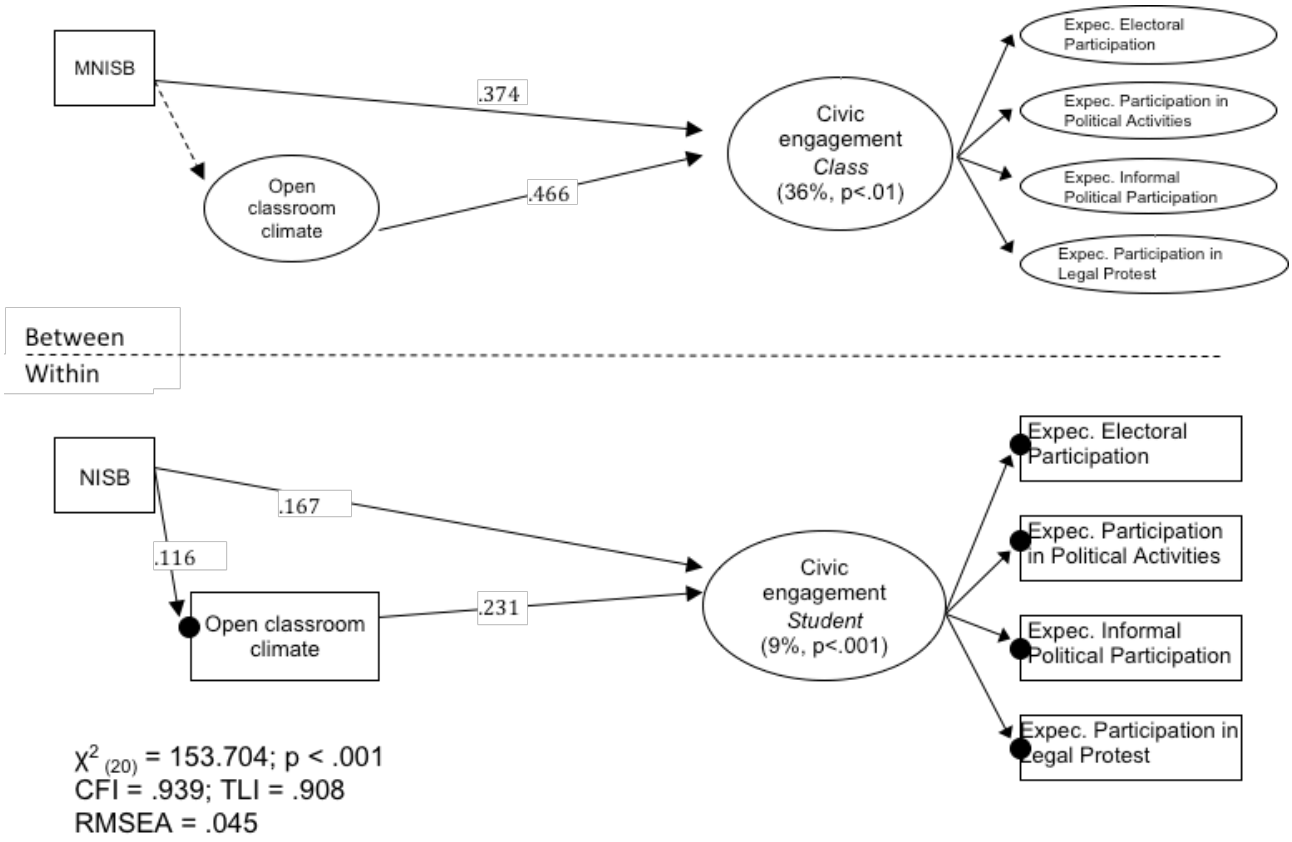

Figure 1. Results of the ML-SEM analysis on the Openness Model. All the parameters represented are standardized and statistically significant ($p < .01$). Dashed lines represent not significant relationships

The results showed that CFI and TLI fit statistics were adequate (CFI = .939; TLI = .908), RMSEA indicated a close fit (RMSEA = .045), but the chi-squared was statistically significant ($\chi^2_{(20)} = 153.704$; $p < .001$), probably because of the large sample size. As a whole, the model explained 9% of the variance of overall civic engagement at the within class level ($p < .001$) and 36% of the variance at the between-classes level ($p < .01$). An open climate in the classroom was found to positively and significantly influence civic engagement at both levels ($p < .001$), even after controlling for students' socio-economic background. Our first hypothesis was thus confirmed.

Table 3. Parameter estimates for the ML-SEM of Openness Model

Coefficient	Unstandardized	S.E.	Standardized
		Between classes	
open.clim. => civic engagement	.225*	.061	.466
NISB => open.clim.	.041^{ns}	.576	.009
NISB => civic engagement (direct effect)	.793***	.390	.374
NISB => civic engagement (indirect effect)	.009^{ns}	.129	.004
		Within classes	
open.clim. => civic engagement	.108*	.017	.231
NISB => open.clim.	1.132*	.306	.116
NISB => civic engagement (direct effect)	.763*	.111	.167
NISB => civic engagement (indirect effect)	.123**	.045	.027

Note: * p<.001; **p<.01; p<.05; ns = not significant. open.clim. = open classroom climate index; NISB = National Index of Students' Socioeconomic Background.

As expected, students' socio-economic background proved to have a significant influence on both student civic engagement (direct and indirect effect) and open classroom climate at the within class level. However, at the between-classes level the only statistically significant effect of socio-economic background was the direct impact on civic engagement.

In the third phase of analysis a ML-SEM was performed on the Partial Mediation Model in order to test the Hypothesis 2. The results are shown graphically in Figure 2, while parameter estimates are exhibited in Table 4. The Partial Mediation Model fitted the data well, showing indices more favorable than those of the Openness model tested above: $\chi^2_{(26)} = 178.747$; $p < .001$; CFI = .952; TLI = .923; RMSEA = .042.

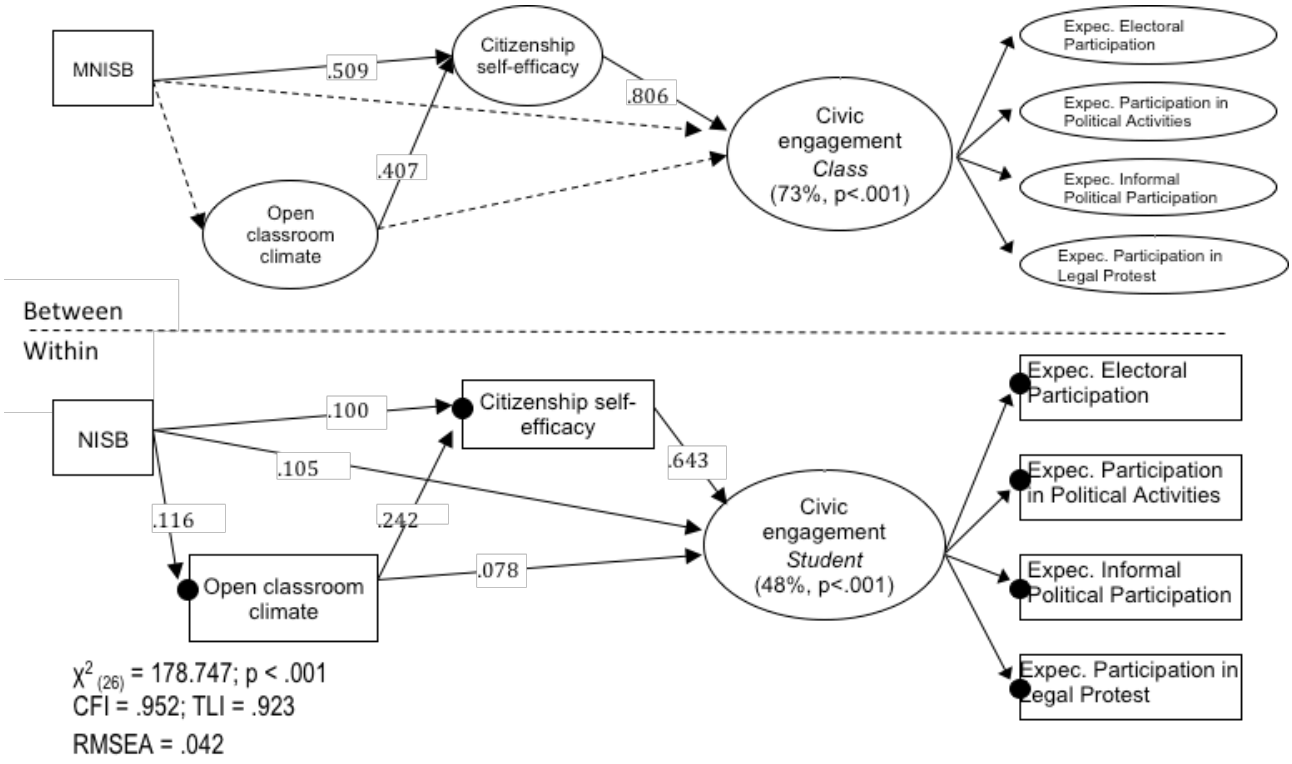

Figure 2. Results of the ML-SEM analysis on the Partial Mediation Model. All the parameters represented are standardized and statistically significant ($p < .01$). Dashed lines represent not significant relationships

Table 4. Coefficients of the partial mediation model

Coefficient	Unstandardized	S.E.	Standardized
		Between classes	
cit.eff => civic engagement	.408*	.087	.806
open.clim. => cit.eff.	.410*	.115	.407
open.clim. => civic engagement (direct effect)	.071^{ns}	.064	.139
open.clim. => civic engagement (indirect effect)	.168**	.059	.328
NISB => open.clim.	.042 ^{ns}	.576	.009
NISB => cit.eff.	2.242**	.818	.509
NISB => civic engagement (direct effect)	-.077 ^{ns}	.310	-.034
NISB => civic engagement (total indirect effect)	.926***	.427	.415
		Within classes	
cit.eff => civic engagement	.296*	.016	.643
open.clim. => cit.eff.	.259*	.027	.242
open.clim. => civic engagement (direct effect)	.039**	.011	.078
open.clim. => civic engagement (indirect effect)	.077*	.010	.156
NISB => open.clim.	1.132*	.306	.116
NISB => cit.eff.	1.040*	.233	.100
NISB => civic engagement (direct effect)	.501*	.110	.105
NISB => civic engagement (total indirect effect)	.438*	.072	.091

Note: * p<.001; **p<.01; ***p<.05; ns = not significant. open.clim. = open classroom climate index; cit.eff. = citizenship self-efficacy index; NISB = National Index of Students' Socioeconomic Background.

The pattern of coefficients in the Partial Mediation Model largely reflects the hypothesized relationships. At the within-class level (in the lower part of Figure 2), citizenship self-efficacy was found to be significantly and positively associated with students' civic engagement. In accordance with our mediation hypothesis, the direct effect of open classroom climate on civic engagement proved to be very small and substantially less than that found in the Openness Model (Beta = .078 vs Beta = .231), where the effects of citizenship self-efficacy were not taken into account, although it remained statistically significant ($p < .01$). Further supporting the mediation assumption, open classroom climate proved to have a significant positive influence on citizenship self-efficacy ($p < .001$) and a statistically significant indirect effect on civic engagement via citizenship self-efficacy ($p < .001$). Students' socio-economic background had a significant influence on all the other variables in the within-level model. This confirmed the importance of controlling for these influences. Overall, 48% ($p < .001$) of the within-class variance of students' civic engagement was explained by the Partial Mediation Model.

Similarly to the within-class level, the results at the between-classes level (in the upper part of Figure 2) showed a significant positive association of citizenship self-efficacy with civic engagement ($p < .001$). In accordance with the mediation hypothesis, taking this effect into account substantially reduced the impact that open classroom climate proved to have on civic engagement in the Openness Model: the direct effect of open classroom climate on overall civic engagement was in fact no longer statistically significant. At the same time, however, open classroom climate was significantly associated with citizenship self-efficacy ($p <.001$) and had a significant indirect impact on civic engagement via citizenship self-efficacy ($p <.01$). The mediation hypothesis was thus supported also at the between-classes level. The socio-economic background of the class as a whole was found to have a significant influence on citizenship self-efficacy ($p < .01$) and indirect effects on civic engagement, while its direct effects on civic engagement and open classroom climate were not statistically significant. In total, 73% ($p< .001$) of the between-classes variance of students' civic engagement was explained by the Partial Mediation Model.

The mediating role of citizenship self-efficacy was further explored in order to add some evidence for either full or partial mediation of the relationship between open classroom climate and civic engagement. The proposed Partial Mediation Model was tested against two alternative models (e.g., Sonnentag & Spychala, 2012): a between-classes level full mediation model (Model 1, which included at the between level only an indirect relationship of open classroom climate with civic engagement via citizenship self-efficacy); and a full mediation model (Model 2, which included only indirect relationships of open classroom climate with civic engagement via citizenship self-efficacy at both levels). Table 5 shows the results of this analysis, with the fit statistics for different mediation hypotheses and the values of the chi-squared difference test based on log-likelihood.

Table 5. Values of fit indices and χ^2 difference tests based on log-likelihood for hypotheses about the mediating role of citizenship self-efficacy.

Mediation Hypothesis	χ^2	df	CFI	TLI	RMSEA	Log-likelihood	N free par.	χ^2dif test
Partial Mediation Model[a]	178.747*	26	.952	.923	.042	-74809,494	34	-
Model 1-Full mediation at the between-class level[b]	181.075*	27	.952	.925	.041	-74810,348	33	1.30[ns]
Model 2-Full mediation at both levels[c]	196.752*	28	.947	.921	.042	-74822,792	32	18.37*

Note: * p<.001; [ns]not significant; [a] no constraints imposed on the estimates of the path coefficients of the model; [b]at the between level the direct relationship between open classroom climate and civic engagement was constrained =0 ; [c] the direct relationships between open classroom climate and civic engagement were constrained =0 at both levels.

The chi-squared difference test showed (Table 5) that the difference between the Partial Mediation Model and the Model 1 was not statistically significant (p = .253). Model 1 also showed good fit indices that were essentially the same as those of the Partial Mediation Model. As regards Model 2, the chi-squared difference test and the fit indices indicated that it was worse than the Partial Mediation Model. On the basis of these results the hypothesis of full mediation at the between-classes level was retained. This analysis confirmed that at the between-classes level citizenship self-efficacy fully mediated the relationship between open classroom climate and civic engagement, while at the within-class level this relationship was partially mediated by citizenship self-efficacy.

Discussion

Adolescents' civic engagement is a matter of primary importance, as it contributes to the health of societies and communities (World Bank, 2007), and positively stimulates adolescents' personal development (Lerner et al. 2009). Since civic experiences and involvement of adolescents can predict their continued civic engagement into adulthood (Jennings & Stoker, 2004), adolescence may provide a unique opportunity for promoting a civic engagement that will last throughout people's lives. Schools play a pivotal role in preparing young people for active engagement in the civic and political life of their communities and the country as a whole (e.g., Flanagan & Faison, 2001; Schulz et al., 2008). In the last decades, however, the increasing detachment from politics of successive generations of young people (e.g., Eurispes, 2009; Galston 2001; ISTAT, 2010, Vecchione & Mebane, 2006; Youniss et al. 2002) has called into question the effectiveness of existing forms of education and has made it indispensable to better understand the factors that could promote civic and political participation in youth (Sherrod, Flanagan, Youniss, 2002).

The present study contributes to the research on civic engagement during adolescence by using innovative data analysis techniques to clarify how various specific characteristics of the school context and of the individual student interact and influence adolescent students' civic engagement. We examined the influence of an open classroom climate on adolescent students' overall civic engagement and verified whether a mediation process centred on students' efficacy beliefs could explain these influences. The data analysis was based on Multilevel Structural Equation Modelling and it controlled for possible confounding effects of socio-economic background of individual students and their classes. To the best of our knowledge, this is the first study to use this analytic approach for investigating factors associated with students' civic engagement.

The present study confirms that schools and classrooms can influence students' civic engagement. About 8% of the variance in civic engagement was in fact explained by the class the students attended. This result supports the recently developed conceptual frameworks, which propose that multi-level structures of contexts (e.g., schools, classrooms, and the context of the individual) influence the civic engagement of youths (Schulz et al., 2008; Torney-Purta et al., 2010). However, in line with previous studies (Hooghe & Dassonneville, 2011; Hooghe & Quintelier, 2011; Hoskins et al., 2012; Quintelier, 2010), the result also shows that most of the differences in civic engagement between students can be explained by factors at the individual level. Our findings extend previous knowledge because, instead of focusing on specific forms of participation, they quantify the impact of school on a multi-componential construct of civic engagement that summarizes students' behavioral expectations regarding different forms of civic and political participation, not just in elections, but also informal political activities and legal protest.

In conformity with our first hypothesis, an open classroom climate proved to have a significant and positive influence on students' overall civic engagement both at the within-class level and at the between-classes level. Students showed a greater willingness to participate civically and politically when they saw their classrooms as places in which to freely discuss political and social issues, express their own opinions and explore those of their peers. This kind of climate is also associated with higher levels of civic engagement of the entire class. Our results showed that the positive influences of an open classroom climate were present even when controlling for students' socio-economic background, which was confirmed as being significantly associated with their civic engagement. Overall, socio-economic background and an open classroom climate accounted for one third of the variability between classes regarding the level of civic engagement and for a small but significant part (9%) of individual differences in students' civic engagement. These results are consistent with the findings of previous studies summed up in the introduction, but they also extend them by demonstrating the positive

influence of an open classroom climate not only on specific areas of participation (e.g., voting) but also on overall civic engagement, as well as by distinguishing the effects at the individual student level from those at the level of the class as a whole.

After having confirmed the positive influence of an open classroom climate on students' civic engagement, the study further investigated the process by means of which this influence is exerted, by testing the second hypothesis. This analysis examined whether the positive impact of an open classroom climate was due, partially at least, to the enhancement of students' citizenship self-efficacy beliefs, which in turn promoted their civic engagement. The results supported this mediation hypothesis.

The citizenship self-efficacy mediation model was supported by the data. On the whole, it explained more than 70% of the variability between classes in civic engagement and nearly 50% of differences between individual students as regards their willingness to participate in civic and political activities. Students' citizenship self-efficacy was confirmed to be a strong predictor of the civic engagement of individual students and of whole classes. Consistently with our hypothesis, citizenship self-efficacy proved to have a pivotal role in mediating the influences that an open classroom climate had on the civic engagement of students and classes. This suggests that the experience of openly discussing political and social issues in the classroom can enhance students' confidence about their ability to perform activities associated with citizenship, and this confidence, in turn, promotes their willingness to participate civically and politically. This process was shown to be present both at the level of the individual student and at the level of the whole class. However, some differences emerged as regards the specific role of citizenship self-efficacy at the two levels analyzed. At the between-classes level, citizenship self-efficacy proved to fully mediate the relationship between open classroom climate and civic engagement of whole classes. At the within-class level, this relationship was partially mediated by citizenship self-

efficacy, but the indirect effect of climate via citizenship self-efficacy was twice that of the direct one. The mediating role of citizenship self- efficacy therefore emerges clearly in any case.

These findings are consistent with the conceptual frameworks for research about civic engagement in youth (Schulz et al., 2008; Torney-Purta et al., 2010) and the results of the previous studies summarized in the introduction, which examined the positive impact of efficacy beliefs and an open classroom climate on the development of civic engagement in youth. But they also significantly extend previous knowledge by clarifying the relationships between these three variables and revealing the mediation process that underlies the positive influence of an open classroom climate. More specifically, our findings show that the possibility of openly discussing political and social issues in the classroom promotes students' willingness to participate civically and politically because this experience enhances their confidence in performing activities associated with citizenship.

It is also important to examine the results regarding the significant influence of students' socio-economic background, even though they were not a main focus of our study. As expected, at the individual student level, socio-economic background was found to be positively associated with all the other variables included in the study. Instead, the average socio-economic background of the class as a whole proved to have a direct effect only on citizenship self-efficacy and an indirect effect on the levels of civic engagement of the class. These findings confirm that students' civic engagement and the factors that promote it are significantly influenced by the socio-economic status of the family in which the students are brought up. The fact that the positive influences of citizenship-self efficacy and an open classroom climate on civic engagement persisted even when controlling for students' socio-economic background is noteworthy. It suggests that these two elements effectively encourage students' civic engagement independently from their socio-economic background.

On the whole, the results of the present study indicate that adolescents' civic engagement is not predetermined by the socio-economic status of their parents but it can be promoted by making them confident about their ability to participate effectively in political and civic issues. The citizenship self-efficacy of adolescents can be improved in the classroom by giving students the opportunity to discuss and reason about political and social issues, safely disagree with each other and with the teacher, and practice their debating and arguing skills. Thus, an open classroom climate seems to help adolescents to become civically or politically involved due to the enhancement of their citizenship self-efficacy. This proved to influence both the willingness to participate in civic and political activities of the individual student and the level of civic engagement of the whole classroom.

Similar insights into the processes underlying the development of civic engagement are of crucial importance since they can provide information to develop targeted interventions in schools aiming to encourage adolescents to engage in political activities. In fact, preparing students for active engagement in the civic and political life of their communities and their country has long been a prominent educational objective (e.g., Flanagan & Faison, 2001). The findings of the present study allow us to make some useful suggestions. Programmes of intervention should aim to improve the classroom climate, by focusing on the open discussion of political and social issues. Adolescents should have opportunities to learn about, to discuss and develop solutions for political issues, and should also be able to observe others (especially their peers) utilising political skills, such as public speaking. Intervention programmes can also refer to various specific approaches and methods (e.g., experience of mastery, modelling) that have been extensively studied and have been shown to effectively promote self-efficacy beliefs (Bandura, 1997).

Despite the important contributions made by the present study some limitations should be noted and these can be used to suggest directions for future research. Firstly, our data was based

on a cross-sectional design. We compensated for this limitation by establishing the directions of the relationships between the variables in the tested models on the basis of theoretical frameworks and the results of previous studies. The order of the variables is also partially justified by the characteristics of the constructs used: open classroom climate and citizenship self-efficacy are focused on students' perceptions of a current status while civic engagement is strongly oriented toward the future. Nevertheless, longitudinal studies will need to be conducted to corroborate our findings and to test the causal relationships.

Secondly, a possible weakness in our findings is the absence of data regarding students' actual behaviours. This limitation is common to several studies of civic engagement during adolescence (e.g., Eckstein et al., 2012; Hooghe & Wilkenfeld, 2008; Schulz et al., 2010; Schmid, 2012; Torney-Purta, Lehmann, Oswald, & Schulz, 2001), which have concentrated on expectations to participate rather than actual participation due to the limited opportunities of adolescents to participate in political life as active citizens. The theory of reasoned action (Fishbein & Ajzen, 1975, 2010) has shown that behavioral expectations or intentions act as powerful mediating influences on actions: attitudes, experiences, and backgrounds all influence actions thanks to their effects on people's intentions. The high level of consistency between intentions or expectations to vote and voting behavior has been shown in a number of studies (e.g., Fishbein & Ajzen, 1981; Granberg & Holmberg, 1990) and a high stability and persistence in political attitudes, ideology, and participation over the life span has been found in longitudinal studies (e.g., Jennings & Stoker, 2004). However, the very few studies that have investigated whether expected participation in adolescence can effectively predict actual participation during adulthood have had mixed results (e.g., Hooghe & Wilkenfeld, 2008). Further studies are needed in order to confirm that the promotion of willingness to participate in civic and political activities can have a positive impact on actual participation.

Thirdly, the data analyzed in our study was based solely on adolescents' reports of a classroom climate open to discussion. The reports of multiple observers would provide a more reliable picture of the classroom climate. Future studies would include teachers' reports and/or classroom observations conducted by trained researchers.

Finally, the sample used in this study was representative of eighth grade students, but only Italian data was considered: future research should therefore be conducted in order to generalize our findings across various other nations and cultural contexts.

References

Ainley, J., & Schulz, W. (2011). Expected participation in protest activities among lower secondary students in 38 countries. Paper presented at the Annual Meetings of the American Educational Research Association in New Orleans, 8-12 April 2011. http://iccs.acer.edu.au/uploads/File/AERA2011/AERA_ICCS_ProtestActivities(NewOrleans2011).pdf. Accessed 6 March 2013.

Amadeo, J., Torney-Purta, J., Lehmann, R., Husfeldt, V., & Nikolova, R. (2002). *Civic knowledge and engagement: An IEA study of upper secondary students in sixteen countries*. Amsterdam, The Netherlands: International Association for the Evaluation of Educational Achievement (IEA).

Amnå, E. (2012). How is civic engagement developed over time? Emerging answers from a multidisciplinary field. *Journal of Adolescence 35*, 611–627.

Asparouhov, T. (2005). Sampling weights in latent variable modeling. *Structural Equation* Modeling, 12, 411-434.

Asparouhov, T., & Muthén, B. (2006). Constructing covariates in multilevel regression. Mplus Web Notes: No. 11. www.statmodel.com.

Astuto J. & Ruck M.D. (2010). Early childhood as a foundation for civic engagement. In L. R. Sherrod, J. Torney-Purta, C. A. Flanagan (Eds.) *Handbook of Research on Civic Engagement in Youth.* Hoboken, NJ: John Wiley & Sons Inc.

Balch, G. (1974). Multiple indicators in survey research: The concept ‘‘sense of political efficacy’’. *Political Methodology, 1*, 1–43.

Bandura, A. (1997). *Self efficacy: the exercise of control*. New York: Freeman.

Beaumont, E. (2010). Political agency and empowerment: pathways for developing a sense of political efficacy in young adults. In L. R. Sherrod, J. Torney-Purta, & C. A. Flanagan (Eds.), *Handbook of research on civic engagement in youth*. Hoboken, NJ: John Wiley & Sons Inc.

Bobek, D., Zaff, J., Li, Y., & Lerner, R.M. (2009). Cognitive, emotional, and behavioral components of civic action: Towards an integrated measure of civic engagement. *Journal of Applied Developmental Psychology, 30*, 615-627.

Brese, F., Jung, M., Mirazchiyski, P., Schulz, W., & Zuehlke, O. (2011). *ICCS 2009 User guide for the international database*. Amsterdam, The Netherlands: International Association for the Evaluation of Educational Achievement (IEA).

Campbell D.E. (2008). Voice in the classroom: How an open classroom climate fosters political engagement among adolescents. *Political Behavior, 30*, 437-454.

Duncan, G. J. & Raudenbusch, S. W. (1999) Assessing the effects of context in studies of child and youth development, *Educational Psychologist,* 34, 29–41.

Eckstein, K., Noack, P., & Gniewosz, B. (2012). Attitudes toward political engagement and willingness to participate in politics: Trajectories throughout adolescence. *Journal of Adolescence, 35*, 485–495.

Ekman, J., & Amnå, E. (2012). Political participation and civic engagement: Towards a new typology. *Human Affairs, 22*(3), 283-300.

Erikson, E. (1968). *Identity: Youth and crisis*. New York: Norton.

Eurispes. (2009). *10° Rapporto nazionale sulla condizione dell'infanzia e dell'adolescenza*. Rome, Italy: Eurispes & Telefono Azzurro.

Finlay, A., Wray-Lake, L. & Flanagan, C. (2010). Civic engagement during the transition to adulthood: developmental opportunities and social policies at a critical juncture. In R.M. Lerner & L. Steinberg (Eds.), *Handbook of adolescent psychology* (pp. 721-746). Hoboken, NJ: John Wiley & Sons.

Fishbein, M., & Ajzen, I. (1975). *Belief, Attitude, Intention, and Behavior: An Introduction to Theory and Research*. Reading, MA: Addison-Wesley.

Fishbein, M., & Ajzen, I. (1981). Attitudes and voting behaviour: An application of the theory of reasoned action. In G. M. Stephenson & J. M. Davis (Eds.), *Progress in applied social psychology* (Vol. 1, pp. 95-125). London: Wiley.

Fishbein, M., & Ajzen, I. (2010). *Predicting and Changing Behavior. The Reasoned Action Approach*. New York: Taylor & Francis Group.

Flanagan, C.A., & Faison, N. (2001). Youth civic development: implications of research for social policy and programs. *Social Policy Report, 15*(1), 1-16.

Flanagan, C.A., & Sherrod, L.R. (1998). Youth political development: an introduction. *Journal of Social Issues, 54*(3), 447-456.

Flanagan, C.A., Syvertsen, A.K., & Stout, M.D. (2007). Civic Measurement Models: Tapping Adolescents' Civic Engagement. *CIRCLE Working Paper*, 55.

Galston, W.A. (2001). Political knowledge, political engagement, and civic education. *Annual Review of Political Sience, 4*, 217-234.

Ganzeboom, H. B. G., de Graaf, P. M. & Treiman, D. J. (1992). A standard international socioeconomic index of occupational status. *Social Science Research, 21*, 1–56.

Granberg, D., & Holmberg, S. (1990). The Intention-Behavior Relationship Among U.S. and Swedish Voters. *Social Psychology Quarterly, 53*(1), 44-54.

Haste, A., & Hogan, A. (2006). Beyond conventional civic participation, beyond the moral-political divide: young people and contemporary debates about citizenship. *Journal of Moral Education, 35*(4), 473–493.

Heck R.H. & Thomas S.L. (2009). *An introduction to multilevel modelling techniques*. New York: Routledge.

Higgings-D'Alessandro, A. (2010). The transdisciplinary nature of citizenship and civic/political engagement evaluation. In L. R. Sherrod, J. Torney-Purta, C. A. Flanagan (Eds.), *Handbook of research on civic engagement in youth*. Hoboken, NJ: John Wiley & Sons Inc.

Hooghe M. & Dassonneville R. (2011). Voters and candidates of the future. The intention for electoral participation among adolescents in 20 European countries. Paper presented at 107th Annual Meeting of the American Political Science Association in Seattle, 1-4 September 2011.

Hooghe M. & Quintelier (2011). School and Country-effects on the Political Participation Intentions of Adolescents. A multilevel study of open classroom climate and participatory school culture in 34 countries. Paper presented at the 6th ECPR General Conference in Reykjavik (Iceland), 25-27 August 2011

Hooghe, M., & Wilkendfeld, B. (2008). The stability of political attitudes and behaviors across adolescence and early adulthood: a comparison of survey data on adolescents and young adults in eight countries. *Journal of Youth Adolescence, 37*(2), 155–167

Hoskins B., Janmaat J.G., & Villalba E. (2012): Learning citizenship through social participation outside and inside school: an international, multilevel study of young people's learning of citizenship, *British Educational Research Journal, 38(*3), 419-446.

Hox J. (2010). *Multilevel Analysis: techniques and applications*. New York: Routledge.

Hu, L., & Bentler, P. M. (1995). Evaluating model fit. In R. H. Hoyle (Ed.), *Structural equation modeling: concepts, issues, and applications*. Newbury Park, CA: Sage.

Hu, L.T., & Bentler, P.M. (1999). Cutoff criteria for fit indices in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling, 6*, 1-55

Ichilov, O. (2003). Education and Democratic Citizenship in a Changing World. In D. O. Sears, L. Huddy, & R. Jervis (Eds.) *Oxford Handbook of Political Psychology*. Oxford: Oxford University Press.

International Labour Organisation (ILO). (1990). *International Standard Classification of Occupations: ISCO-88*. Geneva: International Labour Office.

ISTAT (2010). *La partecipazione politica: differenze di genere e territoriali*. Rome, Italy: Author.

Jennings, M. K., & Stoker, L. (2004). Social trust and civic engagement across time and generations. *Acta Politica, 39*, 342–379.

Jugert, P., Eckstein, K., Noack, P., Kuhn, A., & Benbow A. (2013). Offline and online civic engagement among adolescents and young adults from three ethnic groups. *Journal of Youth and Adolescence, 42*(1), 123-135.

Julian, M. (2001). The Consequences of Ignoring Multilevel Data Structures in Nonhierarchical Covariance Modeling. *Structural Equation Modeling*, *8*(3), 325–352. doi:10.1207/S15328007SEM0803_1

Lerner, J. V., Phelps, E., Forman, Y., & Bowers, E. P. (2009). Positive youth development. In R. M. Lerner, & L. Steinberg (Eds.), *Handbook of adolescent psychology* (3rd ed.) Hoboken, NJ: Wiley.

Levy, B.L.M. (2013). An empirical exploration of factors related to adolescents' political efficacy, *Educational Psychology, 33*(3), 357-390.

Ludtke, O., Marsh, H. W., Robitzsch, A., Trautwein, U., Asparouhov, T., & Muthe´n, B. O. (2008). The multilevel latent covariate model: A new, more reliable approach to group-level effects in contextual studies. *Psychological Methods, 13,* 203–229. doi:10.1037/a0012869

Luengo Kanacri, B.P., Rosa, V., & Di Giunta L. (2012): The mediational role of Values in linking personality yraits to civic engagement in Italian youth. *Journal of Prevention & Intervention in the Community, 40*(1), 8-21.

MacKinnon, D. P., Fairchild, A. J., & Fritz, M. S. (2007). Mediation analysis. *Annual Review of Psychology, 58,* 593–614.

MacKinnon DP, Lockwood CM, Hoffman JM, West SG, Sheets V. 2002a. A comparison of methods to test mediation and other intervening variable effects. *Psychological Methods* 7:83–104

Mahatmya, D., & Lohman, B.J. (2012). Predictors and pathways to civic involvement in emerging adulthood: neighbourhood, family, and school influences. *Journal of Youth and Adolescence, 41*(9), 1168–1183.

Manganelli, S., Alivernini, F., Lucidi, F., & Di Leo, I. (2012). Expected political participation in Italy: a study based on Italian ICCS data. *Procedia – Social and Behavioral Sciences, 46*, 1476-1681.

Marsh, H. W., Ludtke, O., Robitzsch, A., Trautwein, U., Asparouhov, T., Muthen, B. O., & Nagengast, B. (2009). Doubly-latent models of school contextual effects: Integrating multilevel and structural equation ap- proaches to control measurement and sampling error. *Multivariate Behavioral Research, 44,* 764–802. doi:10.1080/00273170903333665

Marzana, D., Marta, E., & Pozzi, M. (2012). Social action in young adults: Voluntary and political engagement. *Journal of adolescence, 35*, 497-507.

Masters, G. N., & Wright, B. D. (1997). The partial credit model. In W. J. van der Linden & R. K. Hambleton (Eds.), *Handbook of modern item response theory* (pp. 101−122). New York and Berlin/Heidelberg, Germany: Springer.

Mehta, P. D., & Neale, M. C. (2005). People are variables too: Multilevel structural equation modeling. *Psychological Methods, 10,* 259–284. doi:10.1037/1082-989X.10.3.259

Muthén, B.O., & Asparouhov, T. (2010). *Beyond Multilevel Regression Modeling: Multilevel Analysis in a General Latent Variable Framework*. In J. Hox & J.K. Roberts (Eds.) Handbook of advanced multilevel analysis. New York: Routledge.

Muthén, L.K., & Muthén, B.O. (2006). *Mplus user's guide* (6th ed.). Los Angeles, CA: Muthén & Muthén.

Niemi, R. G., & Hepburn, M. A. (1995). The rebirth of political socialization. *Perspectives on political science, 24*(1),7-16.

Obradovic, J., & Masten, A.S. (2007). Developmental antecedents of young adult civic engagement. *Applied Developmental Science, 11*(1), 2-19.

OECD. (2012). *PISA 2009 Technical Report*. PISA, OECD Publishing.

Pasek, J., Feldman, L., Romer, D., & Jamieson, K. (2008). Schools as incubators of democratic participation: building long-term political efficacy with civic education. *Applied Developmental Science, 12*(1), 236−237.

Perliger, A., Canetti-Nisim, D., & Pedahzur, A. (2006). Democratic attitudes among high-school pupils: The role played by perceptions of class climate. *School Effectiveness and School Improvement, 17*(1), 119-140.

Preacher, K. J., Zyphur, M. J., & Zhang, Z. (2010). A general multilevel SEM framework for assessing multilevel mediation. *Psychological Methods, 15,* 209–233. doi:10.1037/a0020141

Quintelier E.(2010). The effect of schools on political participation: a multilevel logistic analysis. *Research Papers in Education, 25(2)*, 137-154.

Schmid, C. (2012). The value "social responsibility" as a motivating factor for adolescents' readiness to participate in different types of political actions, and its socialization in parent and peer contexts. *Journal of Adolescence 35*, 533–547

Schulz, W. (2005). Political efficacy and expected political participation among lower and upper secondary students. Paper presented at the ECPR General Conference in Budapest, 8 - 10 September. http://iccs.acer.edu.au/uploads/File/papers/ECPR2005_SchulzW_EfficacyParticipation.pdf. Accessed 6 March 2013.

Schulz, W. (2009). Questionnaire construct validation in the International Civic and Citizenship education Study. *IERI Monograph Series, Volume 2*, 113-135.

Schulz, W., Ainley, J., & Fraillon, J. (2011). *ICCS 2009 Technical Report*. Amsterdam, The Netherlands: International Association for the Evaluation of Educational Achievement (IEA).

Schulz, W., Ainley, J., Fraillon, J., Kerr, D., & Losito, B. (2010). *ICCS 2009 International Report: Civic knowledge, attitudes, and engagement among lower secondary school students in 38 countries*. Amsterdam, The Netherlands: International Association for the Evaluation of Educational Achievement (IEA).

Schulz, W., Fraillon, J., Ainley, J., Losito, B., & Kerr, D. (2008). *International Civic and Citizenship Education Study: Assessment framework*. Amsterdam, The Netherlands: International Association for the Evaluation of Educational Achievement (IEA).

Sherrod, L.R., Flanagan, C., & Youniss, J. (2002). Dimensions of citizenship and opportunities for youth development: The What, Why, When, Where, and Who of Citizenship Development. *Applied Developmental Science, 6*(4), 264–272.

Sherrod, L.R, Torney-Purta, J., & Flanagan, C. (2010). Research on the development of citizenship: a field comes of age. In L. R. Sherrod, J. Torney-Purta, C. A. Flanagan (Eds.), *Handbook of research on civic engagement in youth*. Hoboken, NJ: John Wiley & Sons Inc.

Solhaug, T. (2006). Knowledge and self-efficacy as predictors of political participation and civic attitudes. *Policy Futures in Education, 4*(3), 265-278.

Sonnentag, S. & Spychala, A. (2012) Job control and job stressors as predictors of proactive work behavior: is role breadth self-efficacy the link? *Human Performance, 25*(5), 412-431. DOI: 10.1080/08959285.2012.721830

Torney-Purta, J. (2002). A school's role in developing civic engage- ment: A study of adolescents in twenty-eight countries. *Applied Developmental Science, 6(*4), 203–212.

Torney-Purta, J., Amadeo, J.A., & Andolina, M.W. (2010). A conceptual framework and multimethod approach for research on political socialization and civic engagement. In L. R. Sherrod, J. Torney-Purta, C. A. Flanagan (Eds.) *Handbook of research on civic engagement in youth*. Hoboken, NJ: John Wiley & Sons Inc.

Torney-Purta, J., Lehmann, R., Oswald, H., & Schulz, W. (2001). *Citizenship and education in twenty eight countries*. Amsterdam: International Association for the Evaluation of Educational Achievement (IEA).

UNESCO (2006). *International Standard Classification of Education: ISCED 1997*. Montreal, Quebec, Canada: UNESCO Institute for Statistics.

Vecchione, M., & Caprara G.V. (2009). Personality determinants of political participation: The contribution of traits and self-efficacy beliefs. *Personality and Individual Differences, 46*, 487–492

Vecchione, M. & Mebane, M. E. (2006). Il grande freddo. La disaffezione giovanile verso la politica convenzionale. *Psicologia Contemporanea, 198*, 71-73.

Verba, S., Scholzman, K.L., & Brady, H. (1995). *Voice and equality: civic voluntarism in American politics*. Cambridege, MA: Harvard University Press.

Walker, T. (2002). Service as a pathway to political participation: what research tells us. *Applied Developmental Science, 6*(4), 183–188.

Youniss, J., Bales, S., Christmas-Best, V., Diversi, M., McLaughlin, M., & Silbereisen, R. (2002). Youth civic engagement in the twenty-first century. *Journal of Research on Adolescence, 12*(1), 121-148.

World Bank. (2007). *World development report 2007: Development and the next generation*. Washington, DC: Author

Zaff, J., Boyd, M., Li, Y., Lerner, J.V., & Lerner, R.M. (2010). Active and engaged citizenship: multi-group and longitudinal factorial analysis of an integrated construct of civic engagement. *Journal of Youth and Adolescence, 39*(7), 736–750.

Zimmerman, M.A. (1989). The relationship between political efficacy and citizen participation: construct validation studies. *Journal of Personality Assessment, 53*(3), 554-566.

CHAPTER 5
General conclusions

Civic engagement during adolescence is an expression of successful development (e.g., Lerner, Phelps, Forman, & Bowers, 2005) and it is the basis of civic and political involvement during adulthood (Eckstein, Noack, & Gniewosz, 2012; Flanagan & Sherrod, 1998), as well as of healthy communities and societies (World Bank, 2007). As Amnå (2012) has recently pointed out, there is therefore a need for studies that can help to identify the factors that can promote civic engagement in youth. Thanks to this knowledge the efficacy of policies and projects to sustain and enhance adolescents' engagement can then be ensured and reinforced.

In the present work some main issues may be identified, which extend our understanding of the processes underlying the development of civic engagement in adolescence.

First of all, the present work reveals that efficacy beliefs referring to civic and political activities play a pivotal role in the civic engagement of adolescents. The second study has shown that citizenship self-efficacy and internal political efficacy are the only factors that have a significantly positive and strong effect on civic engagement, in both boys and girls. The third study, has confirmed that students' citizenship self-efficacy is a strong predictor of the civic engagement not only of individual students but also of whole classes. A greater willingness to participate civically and politically is thus associated with the belief of adolescents that they are capable of performing activities related to citizenship participation or engaging in politics. Our findings are consistent with the results of previous studies (Ainley & Schulz 2011; Krampen, 2000; Pasek, Feldman, Romer, & Jamieson, 2008; Schulz, Ainley, Fraillon, Kerr, & Losito, 2010; Solhaug, 2006), but they also extend them in several ways. Thanks to the civic engagement construct developed in the first study, our findings have demonstrated the positive influence of efficacy beliefs on overall civic engagement and not only on specific areas of participation (e.g., voting). We have shown that citizenship self-efficacy and political efficacy effectively encourage students' civic engagement independently from their socio-economic background and their gender. Our findings also reveal the primary role of efficacy beliefs

compared to other factors (civic knowledge, socio-economic background) that in the literature have been regarded as predictors of adolescents' civic engagement.

The present work confirms that the school context can promote adolescents' civic engagement. In line with previous studies (Amadeo, Torney-Purta Lehmann, Husfeldt, & Nikolova, 2002; Campbell, 2008; Hooghe & Dassonneville, 2011; Hooghe & Quintelier, 2011; Manganelli, Alivernini, Lucidi, & Di Leo, 2012; Torney-Purta, Lehmann, R., Oswald, H., & Schulz 2001) a classroom climate that is open to discussion of political and social issues proved to have a significant and positive influence on students' overall civic engagement. In addition, our findings revealed that an open classroom climate has a positive effect not only on specific areas of participation (e.g., voting) but also on overall civic engagement, and that it influences the individual student as well as the whole class.

The third study above all significantly extends our knowledge by clarifying the way in which an open classroom climate enhances students' civic engagement. A mediation process centred on students' citizenship efficacy beliefs has proved to be an important mechanism to explain the effects of an open classroom climate on the individual student as well as on the whole class. Our findings suggest that the possibility of openly discussing political and social issues in the classroom promotes students' willingness to participate civically and politically because this experience enhances their confidence in performing activities associated with citizenship. The positive influences of citizenship-self efficacy and an open classroom climate on civic engagement persist even when controlling for students' socio-economic background. These two elements thus seem to effectively encourage students' civic engagement independently from their socio-economic background.

The current work revealed that adolescents' civic knowledge does not generally have any significant impact on civic engagement and it actually has a slight negative influence in boys. The fact that adolescents are informed and understand civic matters may thus have different

consequences in boys and girls and, in any case, it does not seem to increase the likelihood of their future participation in civic and political activities. This result was partially expected because previous research had found that civic knowledge promoted only electoral participation, while it had no or very slight impact on other kinds of civic and political participation (Ainley & Schulz, 2011; Schulz, 2005; Schulz et al., 2010; Torney-Purta et al., 2001). Our findings indicate that civic knowledge alone is probably insufficient to promote the participation of young people in more demanding activities than voting. To become civically or politically involved adolescents need to be confident about their effectiveness, especially in performing civic activities that are familiar in their everyday lives.

As expected, the socio-economic background of the students was shown to influence all the other variables included in our research. This confirms the importance of controlling for this factor when studying the civic engagement during adolescence. In accordance with previous research (Schulz et al., 2010; Perliger, Canetti-Nisim, & Pedahzur, 2006; Torney-Purta et al., 2001), our findings confirmed that a higher socio-economic background is associated with higher levels of civic knowledge and efficacy beliefs. In addition, they revealed that adolescents' civic engagement is little influenced by their families' socio-economic background and that this factor has a mostly indirect effect due to its influence on civic knowledge and efficacy beliefs.

Considered as a whole, the results of the present work indicate that adolescents' civic engagement is not predetermined by the socio-economic status of their parents but it can be promoted by making them confident about their ability to participate effectively in political and civic issues. The citizenship self-efficacy of adolescents can be improved in the classroom by giving students the opportunity to discuss political and social issues, safely disagree with each other and with the teacher, and practice their debating and reasoning skills.

Preparing students for active engagement in the civic and political life of their communities and their country has long been a prominent educational objective (e.g., Flanagan

& Faison, 2001). Our findings provide useful information for developing targeted interventions in schools aiming to encourage adolescents to engage in political activities. These indications could be especially useful for Italian schools which, as a result of recent reforms, are expected to implement innovative strategies for teaching citizenship and for promoting the active participation of students as citizens (e.g., Terrinoni & Stringher, 2013). The results of the current work suggest that schools should not only focus on increasing students' civic knowledge, but that they should work to engender or improve students' citizenship and political efficacy beliefs. In order to achieve this aim, programmes of intervention and teaching strategies should aim to improve the classroom climate, by focusing on the open discussion of political and social issues. Adolescents should have opportunities to learn about, to discuss and develop solutions for political issues, and should also be able to observe others (especially their peers) utilising political skills, such as public speaking. Intervention programmes should also refer to various specific approaches and methods (e.g., experience of mastery, modelling) that have been extensively studied and have been shown to effectively promote self-efficacy beliefs (Bandura, 1997). The implementation of such interventions could enhance civic engagement in students and lay the foundations for their civic and political participation when they reach adulthood.

References

Ainley, J., & Schulz, W. (2011). Expected participation in protest activities among lower secondary students in 38 countries. Paper presented at the Annual Meetings of the American Educational Research Association in New Orleans, 8-12 April 2011. http://iccs.acer.edu.au/uploads/File/AERA2011/AERA_ICCS_ProtestActivities(NewOrleans2011).pdf. Accessed 6 March 2013.

Amadeo, J., Torney-Purta, J., Lehmann, R., Husfeldt, V., & Nikolova, R. (2002). *Civic knowledge and engagement: An IEA study of upper secondary students in sixteen countries*. Amsterdam, The Netherlands: International Association for the Evaluation of Educational Achievement (IEA).

Amnå, E. (2012). How is civic engagement developed over time? Emerging answers from a multidisciplinary field. *Journal of Adolescence 35*, 611–627.

Bandura, A. (1997). *Self efficacy: the exercise of control*. New York: Freeman.

Campbell, D.E. (2008). Voice in the classroom: How an open classroom climate fosters political engagement among adolescents. *Political Behavior, 30*, 437-454.

Eckstein, K., Noack, P., & Gniewosz, B. (2012). Attitudes toward political engagement and willingness to participate in politics: Trajectories throughout adolescence. *Journal of Adolescence, 35*, 485–495.

Flanagan, C.A., & Sherrod, L.R. (1998). Youth political development: an introduction. *Journal of Social Issues, 54*(3), 447-456.

Flanagan, C.A., & Faison, N. (2001). Youth civic development: implications of research for social policy and programs. *Social Policy Report, 15*(1), 1-16.

Hooghe, M., & Dassonneville, R. (2011). Voters and candidates of the future. The intention for electoral participation among adolescents in 20 European countries. Paper presented at 107th Annual Meeting of the American Political Science Association in Seattle, 1-4 September 2011.

Hooghe, M., & Quintelier, E. (2011). School and Country-effects on the Political Participation Intentions of Adolescents. A multilevel study of open classroom climate and participatory school culture in 34 countries. Paper presented at the 6th ECPR General Conference in Reykjavik (Iceland), 25-27 August 2011

Krampen, G. (2000). Transition of adolescent political action orientation to voting behavior in early adulthood in view of a social-cognitive action theory model of personality. *Political Psychology, 21*(2), 277-297.

Lerner, J. V., Phelps, E., Forman, Y., & Bowers, E. P. (2009). Positive youth development. In R. M. Lerner, & L. Steinberg (Eds.), *Handbook of adolescent psychology* (3rd ed.) Hoboken, NJ: Wiley.

Manganelli, S., Alivernini, F., Lucidi, F., & Di Leo, I. (2012). Expected political participation in Italy: a study based on Italian ICCS data. *Procedia – Social and Behavioral Sciences, 46*, 1476-1681.

Pasek, J., Feldman, L., Romer, D., & Jamieson, K. (2008). Schools as incubators of democratic participation: building long-term political efficacy with civic education. *Applied Developmental Science, 12*(1), 236−237.

Perliger, A., Canetti-Nisim, D., & Pedahzur, A. (2006). Democratic attitudes among high-school pupils: The role played by perceptions of class climate. *School Effectiveness and School Improvement, 17*(1), 119-140.

Schulz, W. (2005). Political efficacy and expected political participation among lower and upper secondary students. *Paper presented at the ECPR General Conference in Budapest, 8 - 10 September.* http://iccs.acer.edu.au/uploads/File/papers/ECPR2005_SchulzW_EfficacyParticipation.pdf. Accessed 6 March 2013.

Schulz, W., Ainley, J., Fraillon, J., Kerr, D., & Losito, B. (2010). *ICCS 2009 International Report: Civic knowledge, attitudes, and engagement among lower secondary school students in 38 countries*. Amsterdam, The Netherlands: International Association for the Evaluation of Educational Achievement (IEA).

Terrinoni, G., & Stringher, C. (2013). Italy. In J. Ainley, W. Schulz, T. Friedman (Eds.) *ICCS 2009 Encyclopedia. Approaches to civic and citizenship education around the world*. Amsterdam, The Netherlands: International Association for the Evaluation of Educational Achievement (IEA).

Torney-Purta, J., Lehmann, R., Oswald, H., & Schulz, W. (2001). *Citizenship and education in twenty eight countries*. Amsterdam: International Association for the Evaluation of Educational Achievement (IEA).

Solhaug, T. (2006). Knowledge and self-efficacy as predictors of political participation and civic attitudes. *Policy Futures in Education, 4*(3), 265-278.

World Bank. (2007). *World development report 2007: Development and the next generation*. Washington, DC: Author

APPENDIX

Questionnaire scales and test items from the IEA ICCS 2009 Student Questionnaire and Cognitive test

Civic engagement

Expected participation in legal protest

There are many different ways how citizens may protest against things they believe are wrong. Would you take part in any of the following forms of protest in the future?

	I would certainly do this	*I would probably do this*	*I would probably not do this*	*I would certainly not do this*
a) Writing a letter to a newspaper	☐1	☐2	☐3	☐4
b) Wearing a badge or t-shirt expressing your opinion	☐1	☐2	☐3	☐4
c) Contacting an <elected representative>	☐1	☐2	☐3	☐4
d) Taking part in a peaceful march or rally	☐1	☐2	☐3	☐4
e) Collecting signatures for a petition	☐1	☐2	☐3	☐4
f) Choosing not to buy certain products	☐1	☐2	☐3	☐4

Ci sono molti modi differenti in cui i cittadini possono protestare contro cose che ritengono sbagliate. In futuro, pensi di partecipare a qualcuna delle seguenti forme di protesta?

	Sicuramente lo farò	*Probabilmente lo farò*	*Probabilmente <u>non</u> lo farò*	*Sicuramente <u>non</u> lo farò*
a) Scrivere una lettera a un giornale	☐1	☐2	☐3	☐4
b) Indossare un distintivo o una maglietta che esprime una tua opinione	☐1	☐2	☐3	☐4
c) Contattare un rappresentante eletto in Parlamento	☐1	☐2	☐3	☐4
d) Partecipare a un corteo o ad una manifestazione pacifica	☐1	☐2	☐3	☐4
e) Raccogliere firme per una petizione	☐1	☐2	☐3	☐4
f) Scegliere di non comprare certi prodotti	☐1	☐2	☐3	☐4

Expected electoral participation

Listed below are different ways adults can take an active part in political life. When you are an adult, what do you think you will do?

	I would certainly do this	*I would probably do this*	*I would probably not do this*	*I would certainly not do this*
a) Vote in <local election>	☐1	☐2	☐3	☐4
b) Vote in <national election>	☐1	☐2	☐3	☐4
c) Get information about candidates before voting in an election	☐1	☐2	☐3	☐4

Di seguito sono elencati diversi modi in cui gli adulti possono partecipare attivamente alla vita politica. Quando diventerai adulto, che cosa pensi che farai?

	Sicuramente lo farò	*Probabilmente lo farò*	*Probabilmente <u>non</u> lo farò*	*Sicuramente <u>non</u> lo farò*
a) Votare alle elezioni comunali	☐1	☐2	☐3	☐4
b) Votare alle elezioni nazionali	☐1	☐2	☐3	☐4
c) Informarmi sui candidati prima di votare	☐1	☐2	☐3	☐4

Expected participation in political activities

Listed below are different ways adults can take an active part in political life. When you are an adult, what do you think you will do

	I would certainly do this	*I would probably do this*	*I would probably not do this*	*I would certainly not do this*
a) Help a candidate or party during an election campaign	☐1	☐2	☐3	☐4
b) Join a political party	☐1	☐2	☐3	☐4
c) Join a trade union	☐1	☐2	☐3	☐4
d) Stand as a candidate in <local elections>	☐1	☐2	☐3	☐4

Di seguito sono elencati diversi modi in cui gli adulti possono partecipare attivamente alla vita politica. Quando diventerai adulto, che cosa pensi che farai?

	Sicuramente lo farò	*Probabilmente lo farò*	*Probabilmente <u>non</u> lo farò*	*Sicuramente <u>non</u> lo farò*
a) Aiutare un candidato o un partito durante una campagna elettorale	☐1	☐2	☐3	☐4
b) Iscrivermi a un partito politico	☐1	☐2	☐3	☐4
c) Iscrivermi a un sindacato	☐1	☐2	☐3	☐4
d) Candidarmi alle elezioni comunali	☐1	☐2	☐3	☐4

Expected informal political participation

Listed below are different actions that you as a young person could take during the next few years. What do you expect that you will do?

	I would certainly do this	*I would probably do this*	*I would probably not do this*	*I would certainly not do this*
a) Talk to others about your views on political and social issues	☐1	☐2	☐3	☐4
b) Write a newspaper about political and social issues	☐1	☐2	☐3	☐4
c) Contribute to an online discussion forum about social and political issue	☐1	☐2	☐3	☐4
d) Join an organisation for a political or social cause	☐1	☐2	☐3	☐4

Di seguito sono elencate diverse azioni che tu, come giovane, potresti adottare nei prossimi anni. Che cosa pensi che farai?

	Sicuramente lo farò	*Probabilmente lo farò*	*Probabilmente <u>non</u> lo farò*	*Sicuramente <u>non</u> lo farò*
a) Parlare con le altre persone delle tue opinioni su argomenti politici e sociali	☐1	☐2	☐3	☐4
b) Scrivere a un giornale su argomenti politici e sociali	☐1	☐2	☐3	☐4
c) Partecipare a una discussione su argomenti politici e sociali in un forum su Internet	☐1	☐2	☐3	☐4
d) Iscriverti ad un'organizzazione per una causa politica o sociale	☐1	☐2	☐3	☐4

Citizenship self-efficacy

How well do you think you would do the following activities?

	Very well	*Fairly well*	*Not very well*	*Nota t all*
a) Discuss a newspaper article about a conflict between countries	☐1	☐2	☐3	☐4
b) Argue your point of view about a controversial political or social issue	☐1	☐2	☐3	☐4
c) Stand as a candidate in a <school election	☐1	☐2	☐3	☐4
d) Organise a group of students in order to achieve changes at school	☐1	☐2	☐3	☐4
e) Follow a television debate about a controversial issue	☐1	☐2	☐3	☐4
f) Write a letter to a newspaper giving your view on a current issue	☐1	☐2	☐3	☐4

Quanto pensi che saresti capace di svolgere le seguenti attività?

	Molto capace	*Abbastanza capace*	*Poco capace*	*Per niente capace*
a) Discutere di un articolo di giornale su un conflitto tra Paesi	☐1	☐2	☐3	☐4
b) Sostenere il tuo punto di vista su un argomento politico o sociale controverso	☐1	☐2	☐3	☐4
c) Candidarti in un'elezione scolastica	☐1	☐2	☐3	☐4
d) Organizzare un gruppo di studenti per ottenere dei cambiamenti nella scuola	☐1	☐2	☐3	☐4
e) Seguire un dibattito televisivo su un argomento controverso	☐1	☐2	☐3	☐4
f) Scrivere una lettera a un giornale per esprimere la tua opinione su un argomento di attualità	☐1	☐2	☐3	☐4

Internal political efficacy

How much do you agree or disagree with the following statements about you and politics?

	Strongly agree	*Agree*	*Disagree*	*Strongly disagree*
a) I know more about politics than most people of my age	☐1	☐2	☐3	☐4
b) When political issues or problems are being discussed, I usually have something to say	☐1	☐2	☐3	☐4
c) I am able to understand most political issues easily	☐1	☐2	☐3	☐4
d) I have political opinions worth listening to	☐1	☐2	☐3	☐4
e) As an adult, I will be able to take part in politics	☐1	☐2	☐3	☐4
f) I have a good understanding of the political issues facing this country	☐1	☐2	☐3	☐4

Quanto sei d'accordo o in disaccordo con le seguenti affermazioni su di te e la politica?

	Molto d'accordo	*D'accordo*	*In disaccordo*	*Molto in disaccordo*
a) Me ne intendo di politica più della maggior parte dei ragazzi della mia età	☐1	☐2	☐3	☐4
b) Quando si discute di argomenti o problemi politici, di solito ho qualcosa da dire	☐1	☐2	☐3	☐4
c) Sono in grado di comprendere facilmente la maggior parte degli argomenti politici	☐1	☐2	☐3	☐4
d) Ho delle opinioni politiche che vale la pena ascoltare	☐1	☐2	☐3	☐4
e) Da adulto, sarò in grado di partecipare alla vita politica	☐1	☐2	☐3	☐4
f) Capisco bene le questioni politiche che riguardano questo Paese	☐1	☐2	☐3	☐4

Open classroom climate

When discussing political and social issues during regular lessons, how often do the following things happen?

	Never	*Rarely*	*Sometimes*	*Often*
a) Theachers encourage students to make up their own minds	☐1	☐2	☐3	☐4
b) Teachers encourage students to express their opinions	☐1	☐2	☐3	☐4
c) Students bring up current political events for discussion in class	☐1	☐2	☐3	☐4
d) Students express opinions in class even when their opinions are different from most of the other students	☐1	☐2	☐3	☐4
e) Teachers encourage students to discuss the issues with people having different opinions	☐1	☐2	☐3	☐4
f) Teachers present several sides of the issues when explaining them in class	☐1	☐2	☐3	☐4

Quando si discute di argomenti politici e sociali durante una normale lezione, con quale frequenza succedono le seguenti cose?

	Mai	*Raramente*	*Qualche volta*	*Spesso*
a) Gli insegnanti incoraggiano gli studenti a farsi una propria opinione personale sulle cose	☐1	☐2	☐3	☐4
b) Gli insegnanti incoraggiano gli studenti ad esprimere le loro opinioni	☐1	☐2	☐3	☐4
c) Gli studenti propongono di discutere in classe di temi di attualità politica	☐1	☐2	☐3	☐4
d) Gli studenti esprimono le proprie opinioni in classe, anche quando sono diverse da quelle della maggioranza degli studenti	☐1	☐2	☐3	☐4
e) Gli insegnanti incoraggiano gli studenti a discutere con chi ha opinioni diverse dalle proprie	☐1	☐2	☐3	☐4
f) Gli insegnanti presentano diversi punti di vista sugli argomenti che spiegano nella lezione	☐1	☐2	☐3	☐4

Civic knowledge

Examples from the released items of the IEA ICCS Cognitive test.

In many countries, media such as newspapers, radio stations and television stations are privately owned by media companies. In some countries, there are laws which limit the number of media companies that any one person or business group can own.

CI2MOM1

Q Why do countries have these laws?

- ☐ to increase the profits of media companies
- ☐ to enable the government to control information presented by the media
- ☐ to make sure there are enough journalists to report about the government
- ☐ to make it likely that a range of views is presented by the media

In molti Paesi, i mezzi di comunicazione come i giornali, le stazioni radiofoniche e le televisioni sono possedute da aziende private del settore della comunicazione. In alcuni Paesi, ci sono leggi che limitano il numero di aziende di comunicazione che possono essere possedute da una sola persona o da un solo gruppo aziendale.

CI2MOM1

Q Perché i Paesi hanno queste leggi?

- ☐ Per aumentare i guadagni delle aziende di comunicazione.
- ☐ Per permettere al Governo di controllare le informazioni presentata dai mezzi di comunicazione.
- ☐ Per assicurare che ci sia un numero sufficiente di giornalisti per riferire le notizie che riguardano il Governo.
- ☐ Per fare in modo che le diverse opinioni siano rappresentate dai mezzi di comunicazione.

In most countries, one group of people makes laws in parliament. Another group of people applies the laws in the courts.

CI2RDM2

Q What is the **best** reason for having this system?

- ☐ It allows many people to make changes to laws.
- ☐ It makes the legal system easy to understand for ordinary citizens.
- ☐ It means that laws can be kept secret until they are applied in the courts.
- ☐ It means that no one group has all the power over laws.

Nella maggior parte dei Paesi, un gruppo di persone fa le leggi in Parlamento. Un altro gruppo di persone applica le leggi nei tribunali.

CI2RDM2

Q Quale è il motivo **più importante** per avere questo sistema?

- ☐ Consente a molte persone di fare cambiamenti alle leggi.
- ☐ Rende il sistema legale facile da capire per i cittadini comuni
- ☐ Permette che le leggi possano essere mantenute segrete fino a quando non vengono applicate nei tribunali.
- ☐ Permette che nessun singolo gruppo di persone abbia troppo potere sulle leggi.

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

CI2SHM1

Q Why would <Male Name> refuse to wear his new shoes?

- ☐ He thinks that shoes made by children will not last very long.
- ☐ He does not want to show support for the company that made them.
- ☐ He does not want to support the children that made them.
- ☐ He is angry that he paid more for the shoes than they are actually worth.

Giovanni compra un paio di scarpe nuove. Dopo, Giovanni scopre che le sue scarpe nuove sono prodotte da un'azienda che, in una fabbrica, impiega i bambini per fare scarpe e li paga molto poco per il loro lavoro. Giovanni dice che lui non metterà più le sue scarpe nuove.

CI2SHM1

Q Perché Giovanni non vuole più mettersi le sue scarpe nuove?

- ☐ Pensa che le scarpe fatte dai bambini non dureranno molto a lungo.
- ☐ Non vuole mostrare il suo sostegno all'azienda che le ha prodotte.
- ☐ Non vuole dare il suo sostegno ai bambini che le hanno fatte.
- ☐ È arrabbiato perché ha pagato le scarpe più di quanto valgono effettivamente.