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## **Social cohesion in schools: a non-systematic review of its conceptualization and instruments**

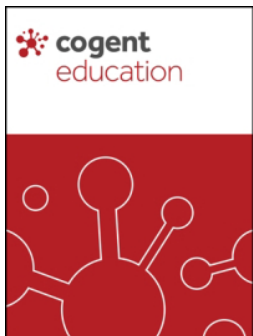
Veerman, G.J.; Denessen, E.J.P.G.; Zhao Zhenzhou

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\*Corresponding author: Gert-Jan Veerman, Behavioral Science Institute, Radboud University, HE Nijmegen Postbus 9104, 6500, The Netherlands, HE Nijmegen Postbus 9104, 6500, The Netherlands  
E-mail: [G.Veerman@pwo.ru.nl](mailto:G.Veerman@pwo.ru.nl)

Reviewing editor:  
Zhenzhou Zhao, Department of Social Sciences, The Education University of Hong Kong, Hong Kong

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## CURRICULUM & TEACHING STUDIES | REVIEW ARTICLE

# Social cohesion in schools: A non-systematic review of its conceptualization and instruments

Gert-Jan Veerman<sup>1\*</sup> and Eddie Denessen<sup>1</sup>

**Abstract:** Social cohesion in schools refers to positive interpersonal relations between students, a sense of belonging of all students and group solidarity. Social cohesion is a multidimensional construct, and educators policymakers and researchers may focus on specific domains within this concept, guided by their personal conception of social cohesion. With this non-systematic review we provide examples of how social cohesion is conceptualized and measured in various ways by those who study social cohesion in education and how these measures relate to the multidimensional construct of social cohesion. Seven components of three social cohesion dimensions are considered. This review presents an overview of five social cohesion instruments and shows that these instruments include specific combinations of dimensions, components, perspectives and social entities at which they are targeted. Based on these examples of the measurement of social cohesion in education, this study provides a heuristic for considerate use of instruments to measure social cohesion.

**Subjects:** Educational Research; Education Studies; Research Methods in Education; Education Policy & Politics; Education Politics

**Keywords:** social cohesion; instruments; education; school belonging; citizenship education; school climate



Gert-Jan Veerman

### ABOUT THE AUTHOR

Gert-Jan Veerman is a post-doctoral researcher at the Behavioural Science Institute of the Radboud University, Nijmegen, and lecturer at the Christelijke Hogeschool Ede, Ede, the Netherlands. He earned a degree in both sociology and educational sciences. His research focuses on social cohesion in diverse classrooms. Eddie Denessen is professor of sociocultural diversity and education at Leiden University and associate professor at Radboud University, Nijmegen, the Netherlands. His areas of expertise are educational inequalities, teacher expectations, differentiation in schools and classrooms, school choice, cultural ethnic segregation, and parental involvement in education.

### PUBLIC INTEREST STATEMENT

Observed tensions between cultural-ethnic groups in increasingly culturally diverse Western societies lead to an appeal on educators to promote social cohesion in schools and classrooms. Schools are regarded as places where students could “learn” social cohesion. The social cohesion in school contexts is expected to have an effect on social cohesion in the wider society. Social cohesion, however, is a multidimensional concept. How social cohesion is defined and how it should be measured differs across studies. With this study we aim to provide insight in the different components of social cohesion in schools. Analyses of research on social cohesion in schools shows that it refers to (1) positive interpersonal relations between students, (2) a sense of belonging of all students and (3) group solidarity and that it can refer to different entities and be viewed from different perspectives. The findings of this review provide examples and guidelines for selecting instruments to measure social cohesion based on the specific interests of researchers.

## 1. Introduction

Over the past two decades, a growing number of policymakers and policies have focused on achieving cohesive societies by reinforcing social cohesion in the educational setting (Chiong & Menzies, 2016; Flecha, 2015; Green & Janmaat, 2011). Tolerance and inclusion are mentioned as key elements of the social progress of social cohesion (European Commission, 2017).

The focus on tolerance and inclusion as key elements of social cohesion in education (Education Council, 2006; Hoskins, 2008) is to a large extent driven by observed tensions between cultural-ethnic groups in increasingly culturally diverse Western societies (Leeman, 2008; Schiefer & Van der Noll, 2017). Schools in particular are regarded as places where students should learn to be members of a culturally diverse community (Schuitema & Veugelers, 2011) and where mutual understanding and shared values should be promoted (Phillips et al., 2010). Besides these long term effects of social cohesion in schools on future citizenship (Mickelson & Nkomo, 2012), social cohesion in schools serves short term goals too. Cohesive classrooms, for example, have been found to be supportive for a positive classroom climate and feelings of belonging, mutual tolerance and safety at school (Allen et al., 2018; Hewstone, 2015; Mooij et al., 2011; Zedan, 2010).

The focus on education as an important context to promote social cohesion has not only led to the development of interventions and programs for social cohesion in classrooms and schools (Flecha, 2015; García-Carrión & Díez-Polamar, 2015; Hughes, 2014), but also to a broad field of research on social cohesion in classrooms and schools. However, the concept of social cohesion in education is complex. It has many definitions, including for example, a sense of belonging (Healy, 2019), national unity (Osler & Starkey, 2006), mutual trust (Dinesen, 2011), mutual tolerance (Hewstone, 2015; Hughes, 2014), strong social networks (Lott & Lott, 1965), and the willingness to help others (Goard, 2010).

Although recent conceptual reviews have provided ideas concerning the multiple dimensions and components of social cohesion in general (Schiefer & Van der Noll, 2017), the current literature lacks a specific overview of studies assessing social cohesion in educational contexts. Educational researchers focus on particular indicators of social cohesion that are relevant in the context of schools and classrooms, such as peer relations in the classroom, students' school belonging, citizenship education and school climate. As a consequence, the field of educational research on social cohesion is idiosyncratically diverse and may appear somewhat fragmented regarding the multidimensional construct of social cohesion.

With this paper, we provide a non-systematic review of instruments for the assessment of aspects of social cohesion in schools and classrooms. We will discuss these in the light of the conceptual complexity of social cohesion to identify how these instruments typically relate to aspects or dimensions of social cohesion. With this review we aim to provide a heuristic that helps researchers make informed decisions regarding instruments and items to measure social cohesion in schools and classrooms in accordance with their specific research agendas. Our research question was: How do the instruments typically relate to aspects or dimensions of social cohesion?

We start with an introduction of social cohesion as a multidimensional general social science concept. Next, we describe how these dimensions play a role in educational research. Third, we present instruments that have been developed to study social cohesion in educational settings. Finally, we reflect on the educational research fields and implications of the indicators from these instruments regarding social cohesion in education and propose some new directions for research on social cohesion in education.

### **1.1. Social cohesion: a multidimensional concept**

In 2017, Schiefer and Van der Noll published a summary of the conceptualizations of social cohesion as a general social science concept. They presented social cohesion as a multidimensional concept and provided an excellent overview of its dimensions. According to their review, social cohesion is “a descriptive attribute of a collective, indicating the quality of collective togetherness” (p. 592). Schiefer and Van der Noll (2017) summarized the social cohesion literature with three dimensions: (1) social relations, (2) belonging, and (3) orientation towards the common good.

With this three-dimensional model the authors have clustered different underlying of social cohesion. This model provides the opportunity to summarize the general social cohesion literature and to distinguish what should be regarded as components of social cohesion and as antecedents or outcomes. For instance, the authors regarded the concept of equality to be related to social cohesion as an antecedent and not as an indicator of social cohesion, because it “does in itself not tell us anything about the state of social cohesion of that society” (Schiefer & Van der Noll, 2017, p. 593). Moreover, the authors underpinned that they distinguished three dimensions, but that these dimensions show some conceptual overlap. For instance, they observed a strong conceptual overlap between social relations and identification, indicating that social relations reinforce group identification and that group identification increased the quality of the relations among members of the group.

According to Schiefer and Van der Noll (2017), *social relations* are, “the most prominent aspect of social cohesion” (p. 585). Both the quantity and quality of relations are important. Therefore, social relations refer to both observable relations as well as attitudes toward other people, groups, and institutions. They distinguished four components of social relations: social networks, trust, mutual tolerance, and participation. Social network refer to both the quantity and quality of social interactions with, for instance, friends and family. Trust is the expectation that other people’s behavior is led by positive intentions. Mutual tolerance means the inclusion of minority groups by “bridging” social contacts outside the in-group. Participation refers to membership in, for instance, sports clubs; voluntary work; and participation in demonstrations or citizens’ inquiries.

A second dimension is *belonging*, or feeling an attachment to or identification with a social entity. Social entities can be communities, cultural groups, neighbourhoods, countries, or transnational entities. The terms “belonging” and “identification” are used in their review interchangeably.

The final dimension of social cohesion, *orientation towards the common good*, entails two components: solidarity (i.e., feelings of responsibility toward the common good) and compliance with social rules and norms (Schiefer & Van der Noll, 2017). Solidarity, or accepting responsibility towards the common good, means caring for others, including those whom one does not personally know. Compliance with social rules refers to the individuals of a group giving a sufficient degree of legitimacy to the rules of the group.

Although Schiefer and Van der Noll (2017) distinguished these three dimensions, they emphasize that these dimensions are not mutually exclusive and partially overlap. Different components of social cohesion may co-occur, but they can also develop independently. For instance, a stronger identification with one’s community does not automatically imply a stronger willingness to participate in voluntary community work.

Given the broad scope of their research, Schiefer and Van der Noll provide examples from different research fields. Their model provides insight into the components that play a role in the definitions of social cohesion in general. Below we discuss the model in the specific context of educational settings.

### **1.2. Social cohesion in educational settings**

As described above, social cohesion is a multidimensional concept that includes social relations, belonging, and orientation towards the common good, all of which, in turn, contain specific

components. In this section, we present seven specific components of the three dimensions of social cohesion (social relations, belonging, and orientation towards the common good) as described in the educational research literature.

#### 1.2.1. Social relations

The first component of the social relations dimension of social cohesion in educational settings is the component of *social networks*, which in educational settings is defined as the configurations of relational ties among peers in a class and school, relations between students and teachers, and patterns of relations between parents (Carolan, 2014). In recent decades, a field of educational research with a specific focus on social networks has emerged (Carolan, 2014). Already in the 1960s, classrooms with positive relationship networks among students were considered cohesive (Lott & Lott, 1965). The quality of relations refers to, for instance, “mutual positive attitudes among the members” (Lott, 1961, p. 279). A student with a positive attitude toward a classmate will like that classmate, and that classmate will, in turn, like that student (Lott, 1961). Another indicator of the quality of networks in schools is the perceived and received help from friends (Carolan, 2014, pp. 85–86).

The second component is *trust* in one’s classmates, teachers, or the school as an institution. There are a number of studies that focus on trust as a possible outcome of education (Dinesen & Sønderskov, 2018), and, in particular, an outcome of citizenship education (Galston, 2001). Perceived helpfulness and fairness are two of the key elements of students’ generalized trust in others (Dinesen, 2011; Dinesen & Sønderskov, 2018) and are thought to also play a role in one’s trust in classmates. For example, a student who trusts his or her classmates will not expect those classmates to try to take advantage of him or her. Besides trust toward people, social cohesion can also benefit from trust in the school as an institution. Schools are trusted when they adequately fulfil their responsibilities to educate their students to the students’ benefit (Bryk & Schneider, 1996).

The third component of social relations, *tolerance toward outgroups*, refers to both observable positive relations in the classroom or school and attitudes toward students from outgroups. Based on contact theory (Allport, 1954), cross-ethnic friendships are regarded important for tolerance toward outgroups and stronger social cohesion. For example, a number of studies have identified both observable cross-ethnic friendships in the classroom and positive attitudes toward classmates from outgroups as important aspects of mutual tolerance in education (Graham, 2018; Hewstone, 2015). Moreover, students’ positive generalized outgroup attitudes are regarded as a likely outcome of positive interactions and attitudes within schools (Hewstone, 2015; Stark et al., 2015).

Fourth, *participation* is a component of social networks that in educational research is connected to a positive school climate or involvement in civic education (Banks, 2017; Galston, 2001; Thapa et al., 2013). Students can participate in social activities both within and outside the school. Examples of cohesive participation in school are membership in the student council or engagement in other extracurricular activities. Besides these activities, active participation in the classroom during lessons is regarded as helpful for a positive school climate that fosters social cohesion. Contrary to the school climate perspective which mainly focuses on the results of participation on behavior *within* the school, from a citizenship education perspective, student participation refers to providing students with knowledge and participatory skills within the school enabling them to participate in civic affairs and social life *outside* their schools in their neighbourhood and country (Banks, 2017).

Given this overview of recent educational science reviews, the four components of *social relations* as a social science concept manifest themselves in educational settings as (1) social networks in the classroom and school, (2) trust in classmates, teachers, and the school as an institution, (3) behavioural and attitudinal tolerance toward outgroups inside and outside the classroom and school, and (4) participation inside and outside the classroom and school.

### 1.2.2. *Belonging*

Regarding belonging, the second dimension of social cohesion, Schiefer and Van der Noll did not distinguish specific components. The educational literature, though, makes a specific distinction between belonging to (sub)groups (Graham, 2018) and belonging to the school as an entity (Allen et al., 2018).

First, students can feel that they belong to different social entities, such as cultural-ethnic subgroups, groups with shared interests (music, games, sports), peers inside and outside the class. Students can feel that they belong to multiple groups simultaneously (Graham, 2018). For instance, a student could perceive him- or herself as belonging to the groups of migrant students, soccer players, and high-performing students within the school. The overlap of subgroups to which one belongs is regarded as a student's identity complexity (Graham, 2018).

Second, a large amount of educational research focuses on school belonging. According to a recent review, one's relationships with one's peers and teachers and one's general feelings about one's school as a whole are encompassed in the definitions of school belonging that have appeared in recent decades (Allen et al., 2018). The definition of Goodenow and Grady (1993) covers this approach of school belonging: "the extent to which students feel personally accepted, respected, included, and supported by others in the school social environment" (p. 80).

#### *Orientation towards the common good*

In educational research, the dimension orientation towards the common good includes the components of (1) *solidarity with classmates and others* and (2) *compliance with the school rules*.

*Solidarity with classmates and others* implies a sense of care for others. This feeling of care for others is regarded as an important element of a cohesive classroom and a positive school climate. Students in classrooms with a positive classroom climate are expected to act in solidarity toward others in the class and also be willing to help others outside the school (Thapa et al., 2013) which also relates solidarity to aims of civic education.

Students' *compliance with school rules* means that students have peer norms that value learning. Moreover, students in schools with high compliance with rules are expected to feel safe (Cohen et al., 2009). Besides feelings of safety, compliance with school rules includes the communication of rules, consistent responses to violations of these rules, and belief in the school rules by teachers. Given that for a cohesive classroom, the rules must have a sufficient degree of legitimacy, in addition to the teachers, students should play a role in setting rules for learning and discipline (Cohen et al., 2009).

### 1.3. *Instruments for the assessment of social cohesion in educational settings*

Given the above presentation of the dimensions and components of social cohesion in education, educational research may be focused on specific dimensions or components of social cohesion in educational settings, depending on the research framework that is used. A particular focus on social networks, education for citizenship, multiculturalism, identity development or school climate may lead to specific conceptualizations and measurements of social cohesion. Also, because of the complexity of the social cohesion construct, inferences made from specific assessments may be limited by such a particular focus, because the research focus may not allow generalizations to other dimensions or components of social cohesion. In this review, an overview is provided of the specific components that are addressed in instruments for the assessment of social cohesion in educational settings.

## 2. *Methodology*

For this study, a non-systematic review of research on social cohesion in educational settings was conducted. A non-systematic review of research is useful when researchers aim to present an



insightful synthesis of the literature (Cook, 2008). In this case the purpose of the review is to present such a synthesis of instruments for the assessment of social cohesion in educational settings. A non-systematic review was performed, because we aimed the identification of suitable instruments for researching social cohesion. During our study, we found different instruments that have been used to measure social cohesion in educational contexts. Since we did not have clear criteria to select which instrument might be best suitable to serve our study, we reviewed them in terms of content and scope. The research aim was not to systematically evaluate the available instruments, but to analyse a small number of instruments to explore different survey approaches of social cohesion. According to Cook (2008), a non-systematic review is a suitable approach for such purposive research goals.

We collected the instruments used by scholars for the assessment of social cohesion in primary and secondary education from conceptual reviews (top-down approach) and a search in an education-related journal database (bottom-up approach). Given that social cohesion is a general social science concept, we started with the top-down approach using three recent conceptual review studies on social cohesion as a social science concept that appeared between 2014 and 2019: Van der Meer and Tolsma (2014), Hewstone (2015), and Schiefer and Van der Noll (2017). We collected the summaries of the references from the studies included in these reviews and selected the studies that focused on social cohesion in educational settings. Although all three reviews mentioned education as an area to research social cohesion, most of the instruments were developed to measure social cohesion in other contexts, like a neighbourhood or an entire society, and with other research subjects than students or teachers. Most of the instruments were developed to measure social cohesion as perceived by the general adult population.

In addition to this top-down approach, we conducted a bottom-up search by focusing on possible resources for instruments on social cohesion in educational settings: a database with education-related journal articles (ERIC). We searched ERIC for studies on measurements of social cohesion in education carried out between January 2000 and August 2020. We conducted a search using “measurement\*” or “instrument\*” in combination with “social cohesion” as the search terms. We selected studies on social cohesion that focused on primary and secondary education by screening the abstracts. Next, we selected those studies that included instruments for the assessment of social cohesion or that made these instruments available following an email. The search resulted in five instruments used to measure social cohesion in primary or secondary education:

1. The Perceived Cohesion Scale (PCC)
2. The Arnhem School Study (TASS)
3. The Children of Immigrants Longitudinal Survey in 4 European Countries (CILS4EU)
4. The Social Capital and Cohesion Scale (SCCS)
5. The International Civic and Citizenship Study (ICCS)

In the following paragraphs we will describe these instruments and reflect on their content in the context of the conceptual complexity of social cohesion.

### **3. Five instruments to measure social cohesion in schools**

#### **3.1. The Perceived Cohesion Scale (PCC)**

Bollen and Hoyle (1990), who constructed the Perceived Cohesion Scale (PCC) for education, developed the PCC to measure subjective perspectives on cohesion in schools or cities in the United States. Given their specific focus on the subjective perspective on cohesion, Bollen and Hoyle only incorporate the sense of belonging dimension into their instrument. The authors divide



the dimension of belonging into two scales that they conceptually separate as different elements of perceived cohesion. The first three items are regarded as items for “belonging,” (e.g., “I feel a sense of belonging to <school name>”) and the last three items provide notions of “feelings of morale” toward the school (e.g., “<school name> is one of the best schools in the nation”). Although Schiefer and Van der Noll (2017) use the terms “identification” and “belonging” interchangeably, belonging is also regarded as a subcomponent of identification in educational settings (Thijs et al., 2019). With this approach, Bollen and Hoyle split belonging in two subcomponents that both relate to identification. With this distinction of different elements in the component of “belonging,” Bollen and Hoyle (1990) show that their use of “identification” enables a distinction feelings of morale and actual feelings of belonging.

### **3.2. The Arnhem School Study (TASS)**

Both the review study on social cohesion by Van der Meer and Tolsma (2014) and that by Hewstone (2015) examine studies that used The Arnhem School Study (TASS) (Stark & Flache, 2012) as a resource to measure social cohesion. TASS is regarded in the reviews as an instrument to measure social cohesion among students in ethnically diverse secondary school settings with items regarding ethnic outgroup friends and ethnic outgroup attitudes. The studies presented in the review study by Hewstone (2015) use TASS because it allows for the combination of the components of social networks and mutual tolerance. The questionnaire was used in the Netherlands. The original Dutch questionnaire was provided by the author following an email request.

The Arnhem School Study provides items for two of the three social cohesion dimensions: social relations (social networks and mutual tolerance), and orientation towards the common good (solidarity and compliance with the rules). Peer nomination techniques are used to measure social relations (e.g., “who is your best friend?” and “which classmates help you with practical problems? (for instance, homework or school exercises)”). In a similar way also the quality of relations is measured (“How nice are your classmates?”).

In TASS, a strong emphasis is placed on the component of mutual tolerance. In particular, for outgroup attitudes, several items are provided that together form a scale. Examples of Likert-type items (agree-disagree) of attitudes toward students from outgroups are: “all <ethnic group> are honest” and “all <ethnic group> are friendly.”

With respect to the dimension of orientation towards the common good, solidarity is measured with a negatively formulated item (‘Give your opinion: What do you think about doing the following: “Hitting somebody”’). In a similar way, compliance with social rules was measured (‘Give your opinion: What do you think about doing the following: “Not stopping for a red light on a bike”’).

Compared to the PCC, TASS includes different indicators of social cohesion. Interestingly, TASS, contrary to the PCC, focuses on the class or the neighbourhood as the social entity instead of the school (e.g., “how many Turkish friends do you have outside this class?”).

### **3.3. The Children of Immigrants Longitudinal Survey in 4 European Countries (CILS4EU)**

The Children of Immigrants Longitudinal Survey in 4 European Countries (CILS4EU) (Kalter et al., 2016) was mentioned as an instrument to assess social cohesion in a review on social cohesion by Hewstone (2015). The questionnaire was used in four European countries: Germany, the Netherlands, United Kingdom and Sweden.

Two of the three social cohesion dimensions are included in CILS4EU: social relations (social networks, mutual tolerance, and participation) and belonging. Comparable to TASS, CILS4EU provides information on the relationship between self-reported ethnic outgroup contact (e.g., “Thinking now about all of your friends, how many of them have a < ethnic group> background?”) and attitudes toward ethnic outgroups (e.g., “Please rate how you feel about the following groups

on a scale that runs for 0 to 100"). The items regarding participation shed light on participation in the school (e.g., "How often do you skip a lesson without permission?" and "How often do you come late to school?") and outside the school ("Are you a member of any sports, music, drama or any other club?"). Regarding belonging, students were asked about their feelings of belonging toward their country ("How strongly do you feel <survey country member>?") and their ethnic group ("How strongly do you feel that you belong to this <ethnic> group?").

Unlike the PSC and TASS, the social entity to which the sense of belonging refers is not the class, school or neighborhood, but the country where the student lives and his or her ethnic group.

### **3.4. The Social Capital and Cohesion scale (SCCS)**

The idea that social cohesion can be measured with respect to different social entities is the basis of the Social Capital and Cohesion Scale (SCCS) (Magson et al., 2014). The scale examines the social cohesion of Australian secondary school students in four social entities: family, friends, neighbourhood and the school.

The SCCS provides items for all social cohesion dimensions. Magson et al. developed their own items and added six items from the Program of International Student Assessment (PISA) regarding social networks and school belonging to their instrument (for social relations: "my school is a place where I make friends easily", "my school is a place where other students seem to like me" and "my school is a place where I feel left out of things."; for belonging: "my school is a place where I feel like I belong", "my school is a place where I feel awkward and out of place" and "my school is a place where I feel lonely").

To the above described instruments, it adds the component of trust. Trust is, alongside social networks and belonging, regarded as one of the essential indicators of social cohesion and was measured in the SCCS for different social entities, such as friends, the school and the local police, with different items (e.g., "I trust my friends with my secrets", "If I dropped my purse or wallet in my community, someone will see it and return it to me with nothing missing" and "I can trust the police in my area").

Compliance with the rules is measured regarding the community and not the school ("If I see garbage in my community, I pick it up") and solidarity is measured with the item: "I am always available to help my friends".

### **3.5. The International Civic and Citizenship Study (ICCS)**

The International Civic and Citizenship Study (ICCS) (Kohler et al., 2018) is used by Engel et al. (2014) to assess social cohesion of secondary school students. The ICCS questionnaire was used in a large number of countries, across Asia, Europe, Oceania, North and South America. The ICCS provides measures of all three dimensions of social cohesion: social relations, belonging and orientation toward the common good.

A number of items in the ICCS shed light on social networks using information on the quality of relations in terms of how students perceive the relations within their school as a whole (e.g., "I am afraid of being bullied by other students"). Besides this example of a social networks item from students' own perspective, ICCS distinguishes a "consensus" perspective (e.g., "Most students at my school treat each other with respect" and "Most students at my school get along well with each other").

A similar distinction in positions is made regarding belonging. Students are asked their belonging to their country (e.g., "I am proud to live in <country>") and their school principal is asked about the belonging of others ("In your opinion, to what extent does the following statement describe the current situation at this school: 'Students feel part of the school community'"). The ICCS assesses solidarity in the future ("When you are an adult, what do you think you will do? Volunteer time to help other people in <the local community>").

ICCS includes items on attitudes toward obeying rules and the legitimacy of the rules. Regarding compliance with social rules, the principal of the school is asked about the extent to which the following statements apply to the current situation at his or her school: “Rules and regulations are followed by teaching and non-teaching staff, students, and parents.”.

Besides the school as a social entity, a large number of other social entities are included in the social cohesion assessment, such as the local community, the country, and the European Commission (“How much do you trust each of the following groups, institutions or sources of information?” “The United Nations”, “European Commission”).

#### **4. Conclusion and discussion**

The five instruments presented above show that there is some variation regarding the *content* of assessments of social cohesion, the *social entities* to which the concept refers and the *perspective* from which social cohesion is measured.

##### **4.1. The content of social cohesion assessments**

The social cohesion instruments reviewed in this non-systematic review include one, two or three dimensions of social cohesion. Whereas the PCC only focuses on belonging, the other instruments include social relations and belonging (CILS4EU), social relations and orientation towards the common good (TASS) or all three dimensions (SCCS and ICCS).

Regarding *social relations*, most instruments focus on the quantity of social networks (the number of mutual friends), and their quality (do students like each other). The other components of social relations (tolerance, trust, and participation) each are represented more selectively in instruments with a specific focus, for example, the focus on tolerance in TASS the focus on trust in the SCCS and the focus on participation in CILS4EU.

Regarding *belonging*, all instruments, except TASS, include items on students’ self-reported sense of belonging. The dimension of the *orientation towards the common good* is included in three instruments (TASS, SCCS and ICCS). The way this dimension is measured varies from attitudes towards non-compliant behavior (TASS), self-ratings of compliance and solidarity (SCCS) to ratings of student compliance provided by the principal (ICCS).

##### **Entities and perspectives of social cohesion**

The entity to which social cohesion refers varies across and within instruments. Social cohesion is measured at the level of the classroom, the school, the neighborhood, the country and—even broader—the level of the European Union. It should be noted that complex relations can be observed between social cohesion on different levels or social entities. On the one hand, social cohesion on a classroom level may strengthen school cohesion. Cohesive classrooms can for example, foster a strong sense of school belonging (see for example, Hamm & Faircloth, 2005). On the other hand, strong social cohesion at a lower level (for example, a classroom or subgroup within a classroom) may trigger processes of in-group favouritism, intergroup competition and intergroup conflict (Turner et al., 1979). In that case, social cohesion at a higher level (e.g., school or neighborhood) could be negatively affected by social cohesion at a lower level.

Moreover, different perspectives on social cohesion are used. Already in 1998, Fraser (1998) distinguished between instruments that use the “own role” perspective of, for instance, the student and the “consensus” perspective in the classroom environment. Most instruments asked students for self-ratings of their “own role” perspective on social cohesion (e.g., “my school is a place where I make friends easily” (SCCS) or “who is your best friend?” (TASS)). With these measures social cohesion is measured at the level of the individual student. Other measures take different perspectives. A “consensus” perspective, as used in the ICCS, measures social cohesion at the level of the school (e.g., “most students at my school get along well with each other”). The focus then lies not on how an individual student feels a personal sense of cohesion, but on the school as a whole.

Theoretically, it can be questioned what the most valid assessment of social cohesion of a school is: the aggregate of individual students' ratings of their social relations within the school or the aggregate of individual students' ratings of social cohesion of the school. A number of studies on social cohesion have computed the mean and variance of the individual answers at the group level to shed light on the consensus of social cohesion (Friedkin, 2004). Given the current different uses of perspectives, measurement perspectives are not always distinguished in questionnaires for the assessment of social cohesion, leading to indicators from both the "own role" perspective of social cohesion of a group and the "group as a whole" perspective. The distinction between these perspectives seems conceptually important given that, for instance, a student could perceive that the group as a whole gets along well but individually experience negative relationships.

#### 4.2. Heuristic for a considerate use of instruments to measure social cohesion

Based on the distinctions with respect to the dimensions and components, the social entity and perspective in research on social cohesion in educational settings, we build a three-dimensional model of social cohesion in the educational context and present it as a cube in Figure 1. Depending on the research aims, researchers can use this cube to clarify what is exactly meant by social cohesion, to which social entity it pertains and from which perspective it is measured.

Researchers are made aware of the notions and assumptions underlying their research and can select scales and instruments that fit their research aims. In this way, the cube provides the opportunity to reflect on the choices for what, where and how social cohesion in current and future educational research is measured. For example, one might be interested in the quality of social relations in classrooms from a student's perspective. For this aim, an appropriate measure is likeability ratings of each classmate, as included in TASS. Another one might be interested in the school belonging from a group-as-a-whole perspective. For this aim, an appropriate measure is the

**Figure 1. Dimensions, social entities and perspectives of social cohesion in schools.**

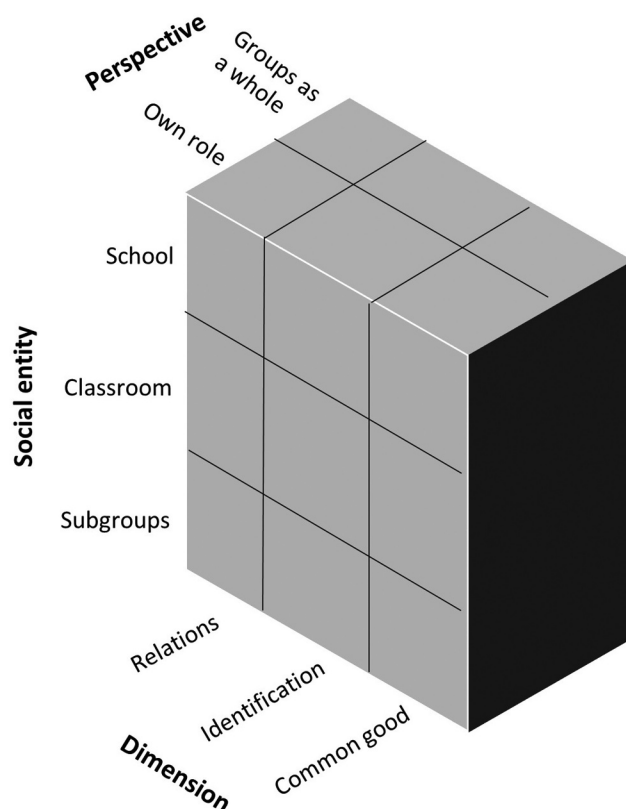


Table 1. Appearance of the components of the dimensions of social cohesion and available entities and perspectives of the five social cohesion instruments for education									
Dimension	Social relations				Belonging	Common good		Entities	Perspectives
Component	Social networks	Trust	Mutual tolerance	Participation		Solidary	Compliance with the rules		
1. Perceived cohesion Scale (Bollen & Hoyle, 1990)					x			School	Individual
2. The Arnhem School Study (Stark & Flache, 2012)	x		x			x	x	Subgroups Classroom	Individual
3. Children of immigrants Longitudinal Survey in 4 European Countries (Kalter et al., 2016)	x		x	x	x			Subgroups Classroom School	Individual
4. Social Capital and Cohesion Scale (Magson et al., 2014)	x	x			x	x	x	School	Individual
5. International Civic and Citizenship Study (Kohler et al., 2018)	x	x	x	x	x	x	x	Subgroups Class School	Consensus

rating by the principal of the feelings of the students in the school (i.e., the ICCS-item “Students feel part of the school community”). Table 1 provides a summary of the instruments in terms of the different underlying components, entities and the perspectives from the heuristic presented in Figure 1.

#### 4.3. Future research

In this study, we reviewed five instruments to assess social cohesion in educational settings. In future research, these instruments could be used in relation to concepts that are regarded relevant for social cohesion research and policies (Villalba, 2008), such as quality of life and social inequality (Schiefer & Van der Noll, 2017, p. 594). In particular, educational research could focus on the role of teachers in the promotion of social cohesion in classrooms and schools and how specific educational contexts foster or hinder social cohesion, such as the school composition or the citizenship education curriculum.

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#### Author details

Gert-Jan Veerman<sup>1</sup>  
 E-mail: [G.Veerman@pwo.ru.nl](mailto:G.Veerman@pwo.ru.nl)  
 ORCID ID: <http://orcid.org/0000-0001-7636-9339>  
 Eddie Denessen<sup>1</sup>  
 ORCID ID: <http://orcid.org/0000-0002-4003-2934>  
<sup>1</sup> Behavioral Science Institute, Radboud University, Nijmegen, The Netherlands.

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