Gender Integration and the Promotion of Inclusive Classroom Climates

Richard A. Fabes, Carol Lynn Martin, and Laura D. Hanish

Arizona State University

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Richard A. Fabes, Carol Lynn Martin, and Laura D. Hanish are all in the T. Denny Sanford School of Social and Family Dynamics, Arizona State University.

Correspondence concerning this article should be addressed to Richard A. Fabes, T. Denny Sanford School of Social and Family Dynamics, Box 873701, Arizona State University, Tempe, AZ 85287-3701. Contact: rfabes@asu.edu

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Abstract

The purpose of this paper is to highlight the important role that gender plays in organizing and affecting the quality of the classroom climate. We review research showing how students' peer relationships tend to be segregated by gender and discuss the consequences of children spending much of their time almost exclusively with same-gender peers, which perpetuates and exaggerates gender segregation. We suggest that a more beneficial pattern is enhancing students' exposure to other-gender peers – that is, promoting gender integration. We describe the theories that support the benefits of integrating across social groups. Next, we review methods and results of strategies we have used to promote integration. Finally, we draw attention to the issues about gender integration that require further consideration and argue for more research that can help guide the development of effective strategies that build more inclusive environments, practices, and policies for today's children and youth.

Gender Integration and the Promotion of Inclusive Classroom Climates

When the social climate of a classroom provides a foundation for students' relationships to be inclusive, cooperative, and positive, academic and social outcomes are significantly enhanced (National School Climate Council, 2015). In contrast, when the social climate of the classroom is segregated, exclusive, and harmful to peer relationships, academic interest, motivation, and performance can be undermined (Doll, Song, & Siemers, 2004; Glew, Fan, Katon, Rivara, & Kernic, 2005). Although there are many elements of the classroom and school that contribute to the inclusive nature of a classroom (e.g., teacher qualities, curricular activities, the physical environment, etc.), evidence suggests that the quality of the relationships a student has with her or his peers is a highly significant predictor of how children feel about school (Hanish et al., 2016). As such, it is surprising that there have been limited efforts to develop effective strategies that promote inclusive school-based peer relationships with the ultimate goal of improving the classroom climate and students' social and academic learning.

The purpose of this paper is to highlight the important role that gender plays in organizing and affecting the quality of the classroom climate. We begin with a review of the research showing how students' peer relationships tend to be segregated by gender and discuss the consequences of children spending much of their time exclusively with same-gender peers, which perpetuates and exaggerates gender segregation. Next, we address the issue as to how to enlarge children's social worlds. Specifically, we consider the theories that provide heuristic guidance about the methods that might be effective for enhancing children's exposure to other-gender peers – that is, for promoting gender integration. We review several studies from our lab that address how naturally-occurring variations in exposure to other-gender peers have proven to be beneficial for school outcomes. Given this background of theoretical and empirical support,

we then describe the methods and results of simple strategies we have used to promote integration in classrooms. In the final section, attention is turned to issues about gender integration that require further consideration.

Gender as an Organizing Quality of Children's Peer Relationships

In considering how to promote positive classroom climates, our efforts have been focused on advancing thinking and interventions that emphasize the value of *social integration* (i.e., the promotion of mixing and inclusion in interpersonal interactions and relationships) for improving academic outcomes for students. In doing so, we have concentrated our efforts primarily on one of the strongest social barriers that students use to organize their relationships with each other -- namely, the tendency of boys and girls to segregate into same-gender peer groups (e.g., Fabes, Martin, & Hanish, 2007; Martin & Fabes, 2001). We then searched for ways to increase inclusion across the "gender barrier."

Throughout this paper, we use the terms "gender segregation" and "gender integration" as reflecting exclusive and inclusive gender-based relationships, respectively. In using these terms and in discussing gender, we recognize that gender is not a binary concept but instead represents a spectrum or constellation of variations. There is a need for classrooms to be inclusive and safe and to support positive relationships for students across the entire gender spectrum, including for students with non-normative expressions of gender, sexuality, and identity. For the purposes of this article, however, we mostly focus our attention on the broad social groupings of boys and girls as this has been the focus of most of the research and interventions.

The tendency of children (and adults) to segregate by gender is supported by numerous studies (Maccoby, 1998; Maccoby & Jacklin, 1987; Martin & Fabes, 2001; Mehta & Strough,

2009), as well as by casual observations -- go to a school playground almost anywhere in the world and you are likely to see many boys playing with other boys and many girls playing with other girls. The tendency to prefer and to interact with same-gender peers is a pervasive social phenomenon, occurring across diverse cultures and contexts and persisting across the lifespan (Maccoby, 1990b, 1998; Maccoby & Jacklin, 1987; Mehta & Strough, 2009). Preference for same-gender peers begins early (LaFreniere, Strayer, & Gauthier, 1984; Maccoby & Jacklin, 1987), increases over childhood (Maccoby & Jacklin, 1987) and, for the students who identify as heterosexual, only in late childhood and early adolescence is there a shift towards more interest and interactions with the other gender (Dunphy, 1963; Maccoby, 1998).

Although children show strong preferences for peers of their own gender early in development, we acknowledge that societal emphasis (parents, teachers, media) on gender and gender differences provide a context for same-gender preferences and likely increase the salience of gender for children. In the classroom, for example, teachers play a role in contributing to and reinforcing gender segregation. Several researchers have found that when teachers make gender salient in the classroom – such as by lining up students by gender or by having boys and girls compete against each other -- it reinforces gender stereotypes and gender segregation (e.g., Bigler, 1995; Hilliard & Liben, 2010). Additionally, teachers' gender stereotypic beliefs can affect boys' and girls' gender-typed preferences, interests, and achievement. For example, Robinson-Cimpian and colleagues (Robinson-Cimpian, Lubienski, Ganley, & Copur-Gencturk, 2014) found that teachers' differential beliefs about performance in math (e.g., that girls are less capable in math than boys) accounted for about half the gender achievement gap growth in math.

Despite these societal influences, it is important to remember that gender segregation is a peer selection and influence process that is transactional and has consequences that become

exacerbated over time. This transactional cycle reinforces and enhances the tendency to prefer spending time with peers who are similar to oneself through enhancing in-group knowledge while reducing outgroup knowledge. We have referred to this as the "gender-segregation cycle" (Martin, Fabes, & Hanish, 2014). Specifically, individuals gain knowledge about what their own gender group is like, what they like to do, and how to interact with them (Maccoby, 1998; Leaper, 1994). Given increased time with same-gender peers, we would expect children to learn behaviors and skills practiced within their own gender group. Simultaneously, by not spending time with other-gender peers, individuals fail to learn about what the other gender is like, what they like to do, the skills they practice, and how to interact with them. Based on social identity and self-categorization theories (e.g., Nesdale & Flesser, 2003), we might also expect that they would exhibit strong in-group bias and favoritism toward in-group members, and to foster stereotyped bias and prejudice towards out-group members. As knowledge imbalances favor the in-group and disfavor the outgroup, comfort in interactions with the other group decreases, and these processes contribute to increasing levels of segregation. In the classroom, then, girls' and boys' relationships can appear to be exclusive, with a preference for members of the same gender, thereby undermining the overall inclusive nature of the classroom climate.

Empirical evidence from our lab supports this view of the gender-segregation cycle. Research supports that children have differential levels of comfort and efficacy with peers depending on their gender. Elementary-school children reported feeling more efficacious and comfortable with their own gender than with the other gender (Zosuls, Field, Martin, Andrews, & England, 2014). Given the large amounts of time children spend in gender-segregated peer groups, the experiences that they have in these same-gender peer groups likely have a significant impact on the development of gender-typed behavior. For example, Martin and Fabes (2001)

found that the more time preschool children spent in same-sex peer play in the fall, the more gender stereotypic their behavior became a semester later. In this study, initial levels of stereotypic play exhibited by children in the fall were controlled. Thus, the degree to which children spent time with same-gender peers was related to later gender-stereotypic behavior above their initial tendencies to engage in gender-stereotypic behavior in the first place. Using social network analyses that more clearly controlled for selection effects, preschool children were influenced over time to become more similar in gender-typed interests to their peer partners (Martin, Kornieko et al., 2013).

Likewise, Fabes and colleagues (Fabes, Pahlke, Martin, & Hanish, 2013) found that being in gender-segregated classes (all-boy or all-girl classes) was related to junior high school students' gender-stereotypic beliefs. Boys and girls who were enrolled in gender-segregated classes showed a 14% increase in the odds of responding in a gender-stereotypic manner for each gender-segregated class a student took. Similar to the Martin and Fabes (2001) study, initial levels of gender-stereotypic beliefs were controlled. Thus, the findings suggest that the gender-segregated nature of the classroom contributed to later stereotypic beliefs and that the more time spent in gender-segregated classes, the more stereotyped students became beyond their initial tendencies to respond stereotypically in the fall. That changes occurred in a relatively short period of time (from fall to spring) in both our work with preschoolers and junior high school students highlights the potency of gender segregation across childhood and early adolescence.

Individual differences in preferences for gender-segregated environments also illustrate the negative consequences of segregation on sexism and gender stereotyping. For instance, Keener and colleagues (Keener, Mehta, & Strough, 2013) found that sexism generally was associated with increased gender-segregated preferences. However, the patterns varied somewhat

for boys and girls. For boys, the stronger their gender-segregated peer preferences, the greater were their scores on a scale measuring sexism. For girls, the stronger their gender-segregated peer preferences, the more likely they were to deny that discrimination against women continues to exist. Such findings suggest that gender segregation is related to sexism towards women, although the correlational nature of these data do not imply directionality; sexist attitudes certainly can contribute to gender segregation. Such findings do, however, raise doubts about the degree to which gender-segregated schooling is a means to address sexism and bias. For instance, British boys in single-gender schools were found to be significantly more likely than boys in mixed-gender schools (and female students in any school) to dismiss sexism as an issue, either in their school or in society in general (National Education Union, 2017). They also expressed the most strongly negative attitudes about learning about sexism at school.

The gendered nature of children's peer relationships also has been found to contribute to rates of aggression in school. For example, although Faris and Felmlee (2011) found that rates of aggression at school were relatively comparable for boys and girls and that the predictors of aggression did not operate differently for girls versus boys, they also found that gendered relationships strongly influenced aggression. Specifically, they found that aggression in school was diminished when cross-gender interactions were plentiful. For those schools where cross-gender interactions were rare, however, cross-gender friendships were highly salient and created status distinctions that magnified the use of aggression to gain or maintain status.

Heuristic Models for Addressing Gender Integration in Classrooms

The data we have reviewed on gender segregation suggest that gender-based peer relationships in school have the potential to negatively affect the social and academic climates of schools and classrooms. In the US, the vast majority of students attend coeducational classes in

mixed-gender schools (Brown, 2013) and it might be reasonable to assume from the exposure boys and girls have to one another in coeducational settings, that they interact and work effectively together. Unfortunately, the coeducational context provides no assurance that boys and girls work effectively together to learn, solve academic problems, and support one another in their academic efforts. The same classes that appear to be integrated by gender may be quite segregated, meaning that most students interact and work with same- rather than with other-gender classmates. Because most adults draw the unwarranted assumption that boys and girls intermingle in coed classes, attention to this quality of the classroom climate has gone relatively unstudied and is presumed to be unimportant.

Yet, our focus-group research (Miller, Wheeler, Updegraff, & Foster, 2010) hints that gender integration is important and needs to be studied in more depth. For example, we found some coeducational classrooms in which boys did not know the names of any of the girls in their class and in which students felt uncomfortable working with other-gender classmates. We also found that many teachers were unaware of these facts—suggesting that unless a lack of gender integration caused overt classroom management issues, it remained invisible and unstudied. This is true despite the fact that Lockheed and colleagues identified this concern over 30 years ago. Based on their empirical research on the topic, Lockheed and Harris (1984, p. 276) noted then (and this still applies today): *"One plausible explanation for the absence of research on cross-sex cooperation is that unlike racial segregation, for example, sex segregation in elementary schools often is not considered a problem… In classrooms, assignment to mixed-sex seating adjacencies or groups often is used as a punishment designed to reduce student interaction instead of as a learning technique designed to foster cooperative interaction. Concerns regarding the possible negative consequences of this kind of managerial strategy, or of sex*

segregation in general, typically are discounted by the belief that the separatist behaviors and attitudes of boys and girls represent a brief natural stage in their development rather than a lasting pattern of interaction and attitudes. Unfortunately, this line of reasoning masks a serious underlying problem. It appears that sex segregation may have social consequences that persist into adulthood."

Gender integration is not just about mere contact or opportunity for contact with the other gender. It is more about expanding and supplementing the common developmental and social processes that lead children to prefer to socialize almost exclusively with same-gender peers. Adults need to recognize the need to help children develop effective skills and strategies for effectively engaging peers who are different from themselves and this is especially true given the diverse peer environments children today face (McFarland et al., 2018).

To better understand and address gender segregation and integration, we have relied on the use of two theoretical frameworks to serve as heuristic guides in our efforts to develop strategies that promote gender. The first is Intergroup Contact Theory. This theory derives from a simple hypothesis proposed by Allport (1954) to describe and understand race relations -- the "contact hypothesis." The contact hypothesis contends that attitudes toward unfamiliar groups can be improved by increasing contact between group members. Four features have been proposed to enhance the effectiveness of contact: (1) equal status of groups, (2) common goals, (3) intergroup cooperation, and (4) institutional support (laws, customs) (see Pettigrew, Tropp, Wagner, & Christ, 2011), but contact by itself may be useful without these additional features. The contact hypothesis lost momentum in social psychology during the 1990s but interest was reignited when Pettigrew and Tropp (2006) conducted a meta-analysis of the effects of intergroup contact. Out of 515 studies from 38 nations, 94% of studies reported a negative

correlation between contact and many types of prejudices. Even after controlling for potential confounding factors, there were clear effects of intergroup contact. Due to the renewed interest in the topic, hundreds of studies have been conducted to test these ideas. As a result, Intergroup Contact Theory has evolved in complexity and has resulted in expansion in the range of positive outcomes associated with Intergroup Contact Theory (Pettigrew et al., 2011). Intergroup contact effects have been verified in children and adolescents; positive and consistent effects of intergroup contact have been found regardless of whether studies involved racial or ethnic groups or contact between other types of groups (disabled and non-disabled children) (Tropp & Prenovost, 2008). Intergroup Contact Theory is also supported by studies showing improved academic success and positive intergroup attitudes and relations among diverse groups of students (Aronson, Stephan, Sikes, Blaney, & Snapp, 1978; Slavin, 1980).

Of particular interest in Intergroup Contact Theory is the question of what constitutes contact. Intergroup Contact Theory is assumed to extend to all forms of contact: strangers, neighbors, workmates, friends, partners, and students. Highlighted more recently is the importance of cross-group friendships in promoting positive effects of contact (Pettigrew, 1998; Pettigrew & Tropp, 2006; Pettigrew et al., 2011), and their important role has been demonstrated by examining in cross-ethnic friendships in schools (Graham, Manniksma, & Juvonen, 2014). As you see later in this paper, questions remain about the extent to which the quality and types of relationships determine the effectiveness of contact.

Another question inherent in research on Intergroup Contact Theory is for which groups will increased contact be effective. Pettigrew and Tropp (2006) demonstrated that even beyond racial groups, many different groups could show improved attitudes through increased contact. Contact appears effective for improving attitudes across nationalities, ethnicities, disability

levels, sexual orientation, and ages and in a variety of contact settings. Despite this, there is also evidence to the contrary – namely, that intergroup contact can have negative rather than positive effects (e.g., Hewstone, 1966). For example, intergroup contact can at times exacerbate rather than reduce bias because it may produce threats to the distinctiveness of one's group (Tajfel & Turner, 1979). These findings highlight the importance of positive versus negative contact, especially within relatively demanding situations and settings (Hewstone et al., 2014) and highlight the importance of positive experiences and contact when developing interventions based on Intergroup Contact Theory.

In our own work, we have been exploring the use of Intergroup Contact Theory to improve relationships among and attitudes towards girls and boys in classrooms. Because contact across gender is often limited, boys and girls can be viewed as growing up in two distinct cultures, with each learning more about same-gender interactions, skills, and expectations than about the other gender (Leaper, 1994; Maccoby, 1990a, 1998). To the extent that the social worlds of girls and boys can be viewed as separate cultures, Intergroup Contact Theory principles hold promise for increasing understanding of gender-related "cultural" differences, for promoting respect and comfort, for enhancing a broader array of social and cognitive strategies for problem-solving, and for providing the groundwork for better relationships (see Martin, Fabes, & Hanish., 2014)—all of which should promote greater classroom inclusion and better school outcomes for students and teachers (Tropp & Al-Ramiah, 2017).

The second conceptual perspective that provides a heuristic for our work is Peer Exposure Theory. Peer Exposure Theory rests on the ideas that (1) peers are important socializers of one another and (2) that the degree of peer influence is determined by the dosage of exposure in combination with the types of peers to which one is exposed (Hanish, Martin,

Fabes, & Barcelo, 2008; Hanish, Martin, Fabes, Leonard, & Herzog, 2005). These ideas are rooted in social network approaches concerning how influence occurs in groups. Mainly, peer exposure ideas have been tested in young children as a way to better understand the influence of gender segregation (Fabes, Martin, Hanish, Anders, & Madden-Derdich, 2003; Martin & Fabes, 2001; Martin et al., 2013) or in adolescents to understand the influence of peers on negative behaviors such as smoking and drinking (Brechwald & Prinstein, 2011). For instance, children who are exposed to a group of peers who are aggressive become more aggressive themselves over time (Hanish et al., 2005).

Based on these ideas and on what we know from Intergroup Contact Theory, we have expanded our conceptual application of peer exposure to emphasize the importance of *diverse* peer exposure—that exposure to any peers who are different from oneself can enhance social and academic outcomes in a variety of ways. Specifically, we assume that exposure to diverse peers provide a larger array of efficacious interaction styles and behaviors, undermines stereotypes, increases understanding of others' perspectives, and increases comfort in interactions (Martin, Fabes, & Hanish, 2018).

Benefits of Gender Integration

We contend that the promotion of gender integration in schools and classrooms will benefit students because it expands the range of classmates with whom students have opportunities for meaningful collaboration and interactions. There is a considerable body of literature highlighting the positive benefits of peer collaboration and peer learning on cognitive skills and learning outcomes (e.g., Leman, 2015), and these effects have been found even in early childhood (Tudge, 1992) (although the processes through which these benefits may result are not the same; see Gummerum, Leman, & Hollins, 2013). Gender integration, therefore, has the

potential to influence school-related outcomes by improving classroom climates and by enhancing individual skills, attitudes, and feelings of efficacy. Specifically, by increasing contact with other-gender classmates, we predict that students will be more comfortable with a larger array of students, which in turn expands the number of classmates from whom they can learn or derive support for learning. Additionally, by increasing gender integration, students have exposure to a wider diversity of students, thus broadening their exposure to problem-solving strategies, motivations, approaches, interests, and social skills that support and enhance their own "tool kit" of effective functioning and learning. We also contend that just as gender segregation can be viewed as a transactional cycle, so too can gender integration. As we discussed in regard to gender segregation, gender integration also is a transactional cycle in which improved intergroup attitudes and behavior lead to more comfortable cross-gender interactions, thereby reinforcing and promoting greater levels of gender integration (Fabes et al., 2013).

We expect that increased positive contact and collaboration with other-gender peers generate positive outcomes. However, as discussed earlier, if left to their own preferences, children are likely to interact and engage with same- rather than other-gender peers. As such, it is important for teachers and other adults to be aware of this tendency and actively set up conditions that promote cross-gender contact and exposure.

Our work has involved the development of strategies that may promote gender integration. One has been to work with educators to help them become aware of gender segregation in their classrooms/schools. It is easy for teachers to look out over a coed classroom and make the assumption that gender integrated learning is occurring unless they specifically attend to whether girls and boys are really interacting in positive ways. Once becoming aware of this issue, we have found that teachers often feel compelled to do something about it. But,

becoming aware of this can be challenging. As a result, we have engaged in professional development with teachers that help them become aware of peer relationships in their classrooms and provide effective strategies for positively managing these relationships (see https://courses.cpe.asu.edu/browse/sssfd/courses/creating-connected-classrooms). We also have worked with teachers by engaging them in discussions and by writing and speaking about the issue (e.g., Fabes, Martin, Hanish, & DeLay, 2018).

Another way we have addressed this issue has been to conduct research on naturally-occurring variations in gender integration to illustrate the benefits that accrue when relationships are more inclusive (and this research has led us to explore strategies designed to promote gender integration in classrooms; see later section). Albeit limited, our research suggests that classroom climates that promote gender integration result in positive outcomes for students. Studies from our lab illustrate that the promotion of gender-integrated relationships and climates improves school liking and motivation. For example, we found that students who felt more efficacious about interacting with other-gender peers had better affective school-related outcomes. Field and colleagues (Field, Martin, Andrews, & England, 2017) found that 5th-grade students with relatively high feelings of efficacy toward other-gender students showed greater school liking and motivation. Similarly, Andrews and colleagues (Andrews, Martin, Field, Cook, & Lee, 2016) found that 4th-grade students who perceived more inclusion by own- and other-gender peers showed greater school liking than students who did not feel included by both. Moreover, based on observations of preschoolers' peer interactions, we found that the amount of time that boys (but not girls) spent playing in mixed-gender interactions was positively related to academic, affective, and social readiness for school, whereas the amount of time playing with same-gender peers was inversely related to boys' (but not girls') academic and affective

readiness (Fabes, Martin, Hanish, et al., 2003). We also have examined the role of positive contact by exploring the role of other-gender friendships in changing attitudes. Fourth-grade students who had more other-gender friendships showed increasingly positive attitudes and decreasingly negative attitudes toward other gender peers over the year; similarly, more positive attitudes led to increased likelihood of forming other-gender friendships over the course of the year (Halim, Martin, Andrews, Zosuls, & Ruble, 2019). This bidirectional pattern hints at the transactional nature relating intergroup contact and changing attitudes.

There also is reason to believe that when gender integration in classrooms and workgroups is promoted, students have exposure to a broader array of activities and problem-solving strategies, which has the effect of broadening skill development and reducing gender-stereotypic interests and attitudes (Leaper, 1994; Serbin, Zelkowitz, Doyle, Gold, & Wheaton, 1990). For example, in one of our experimental studies, we manipulated the gender make-up of dyads of students working on a series of science tasks together (building molecules). For girls in this task, when the interactions were engaging and positive, girls working with boys showed higher science-related self-competence, interest, and values, and fewer science-related costs, compared to girls working with other girls (DiDonato et al., 2016). Such findings suggest that even brief gender-integrated interactions, as long as they are positive and engaging, may improve girls' interests and values in science. Similarly, in science classes that were more gender-integrated, both girls and boys showed better attitudes toward cross-gender collaboration and held fewer gender stereotypes as compared to more segregated classes (Lockheed & Harris, 1982). Such findings support our contention that there are positive educational outcomes when classrooms are gender integrated and that the promotion of gender integration has the potential to decrease gender disparities in academic interests and motivation (e.g., it should increase girls'

interests in STEM-related courses and boys' interest in reading).

A question arises as to how modifiable gender relationships are in the classroom. Because of the strength and consistency with which children prefer same-gender peers, many adults believe that these patterns are biologically determined and resistant to change. But research suggests that children themselves are the key drivers of gender segregation and that gender segregation is less likely to occur in the presence of adults (Maccoby, 1998). Such findings suggest that teachers can (and should) play an important role in intentionally diversifying the interactions and experiences that students have in working with classmates. Indeed, the literature on the "invisible hand" of the teacher in affecting peer ecologies suggests that teachers can and do matter in determining how peers respond to and are influenced by one another (e.g., Vollet, Kindermann, & Skinner, 2017). Key to the notion of the "invisible hand" is the idea that teachers have the capacity to organize the classroom environment and activities in ways that contribute to students' social experience and that part of this experience relates to the gendered nature of classroom peer relationships.

Although the research is limited, studies suggest that same- and other-gender peer relationships and interactions are malleable and that there are some common teacher practices that appear to modify these in the classroom. For instance, Hilliard and Liben (2010) found that when teachers use gender labels in their preschool classes (e.g., lining up children by gender), gender stereotyping increased and students' play with other-gender peers decreased. In contrast, gender inclusivity can be boosted through teacher intervention; activity structuring; seating arrangements; and changes in children's experiences, beliefs, and expectancies. Further, Serbin and colleagues (Serbin, Tonick, & Sternglanz, 1977) demonstrated that teachers could promote gender integration by manipulating their attention to cooperative play between girls and boys.

Findings showed that when teachers made frequent comments indicating approval for play with other-gender peers (treatment phase), cooperative play between genders increased significantly above baseline rates (to approximately twice the baseline rates) without interfering with levels of same-gender play. When the treatment was discontinued, rates fell to baseline levels. This study is critical in illustrating that teachers can change rates of gender inclusion in the classroom through simply attending to children interacting with other-gender classmates, gender need not be made salient by teachers to change students' behavior, and consistency in teacher practices contributes to longer lasting influence on gender-inclusive relationships in the classroom.

Given research and theory on these issues, we concluded that school-based strategies that are designed to increase students' contact with and exposure to other-gender classmates will likely promote gender-inclusive classroom environments, as well as social and academic strengths and assets beyond what is gained in time spent with same-gender classmates. We now turn to a discussion of our direct intervention approaches to fostering gender integration in schools and classrooms. We address some of the practical questions of how gender-integrated classrooms can be achieved and, importantly, how this can be achieved given the demands on time and resources that educators face.

Strategies for Fostering Gender Integration in Schools: A Relational Perspective

Our strategies for promoting gender integration had to meet several criteria. We felt any strategy we used must be sensitive to the needs of educators, as well as beneficial for students. Equally important was that the practices that are implemented in schools facilitate, rather than detract from, teachers' academic priorities, are not overly demanding, and could be readily learned and effectively and easily implemented.

These insights were derived from working with a diverse team of professionals, including

those with backgrounds in research, educational practice, and clinical practice and those with expertise in teaching and learning, human development, gender development, and peer relationships. Moreover, our team partnered with teachers at all phases of development, from the earliest phases (when it was necessary to understand the issues related to gender inclusion in the classroom that both students and teachers face), to the middle phases (when specific strategies were being designed), to the later phases (when teachers implemented these with their students and provided feedback that was used to re-design). Efforts were made to include the perspectives of teachers working with ethnically and socioeconomically diverse students and with students at varying grade levels from preschool through elementary school to facilitate generalizability.

Another key consideration for us was that the strategies needed to be simple rather than complex; that is, they needed to be minimally demanding and precisely focused. In our case, we developed strategies for enhancing children's experiences with other-gender classmates that were intended to be easy to integrate into teachers' ongoing teaching practices and classroom routines, that were flexible in their use while being sufficiently structured so as to guide teachers, and that required minimal training and preparation and no new resources outside of those already being used in classes. Thus, we worked to develop an approach that would engage teachers and that would support their efficacy in managing the peer climate of their classroom.

Our goal was to help students build and strengthen relationships with other-gender classmates. It is important to note that this goal is, inherently, a relational one. In other words, to effectively build relationships requires that we address the interactions and relationships that occur between any two or more students. Thus, relationship building must move beyond efforts aimed at merely changing the skills, knowledge, or behavior of individual children to include

efforts aimed at changing the factors that underlie children's access to, quality of interactions with, and perceptions of their peers. This is a crucial distinction. Many educational practices are oriented toward teaching individual children the skills, knowledge, or behaviors that are necessary for success in school and beyond. Even social-emotional learning programming, which is one of the most common educational approaches that is specifically aimed at supporting the development of interpersonal interaction skills (Collaborative for Academic Social and Emotional Learning, 2015) tends to have an individual focus. That is, emphasis is on teaching individual children how to understand oneself and others, how to regulate one's own attention, emotions, and behaviors, and how to communicate and problem solve effectively. Although all of these skills are important to children's ability to establish and maintain successful relationships with peers (Durlak, Weissberg, Dymnicki, Taylor, & Schellinger, 2011), without explicitly building in opportunities for children to engage regularly with peers, particularly with diverse peers, it may be difficult for many children to apply such skills. Thus, educational opportunities for children to engage in positive ways with diverse peers are needed.

Buddy-Up and Meet-Up: Educational strategies for fostering gender inclusion.

Based on the conceptual and empirical reviewed in this paper, and our goal of developing relational skills, we identified two strategies that were intended to be integrated as a regular part of teachers' learning activities. The first, *Buddy-Up*, was designed to operate at the peer dyad level, by providing children with opportunities to work in dyads (or small groups at teachers' discretion) with diverse peers. The second, *Meet-Up*, was designed to operate at the large group or classroom level by providing children with the opportunity to work effectively as a large group to set the classroom norms. The role of teachers in both strategies is to structure and support these efforts. Both were developed with and for preschool and elementary classes,

although we believe that they can be adapted for use at other developmental levels (information on the programs can be accessed at https://www.sanfordharmony.org/). We discuss each in turn.

The goal of Buddy-Up is to provide children with structured opportunities to engage with diverse peers in activities that are designed by the teacher, in which children work cooperatively toward a shared goal. Thus, a central purpose of the Buddy-Up strategy is to provide children with the opportunity for contact with diverse peers and to do so in ways that maximize the likelihood that the contact will lead to positive outcomes (e.g., by allowing children to work cooperatively toward a common goal with one or more diverse peers and to receive support and guidance by the teacher for doing so). Moreover, consistent with peer exposure theory, teachers using Buddy-Up provide children with repeated opportunities for peer interactions with both the same peer(s) and with different peers.

Specifically, teachers who are using Buddy-Up assign children to one (or more, depending on teachers' priorities and their perceptions of students' ability to manage dyads versus groups) buddy partners at the beginning of each week. Teachers are asked to prioritize buddy pairings with diverse peers (e.g., other-gender peers), but to do so without making the basis for pairings salient (e.g., without announcing, for example, that they are explicitly pairing girls and boys together). Over a defined period of time (determined by teachers), teachers ask children to work together with their buddy partners on learning activities. In preschool classes, this might include, for example, a collaborative sensorimotor activity (e.g., a ball tossing game) or a joint art project (stringing beads to make a bracelet for one's buddy). In elementary classes, this might include, for example, working together to jointly solve math problems or cooperating to learn a geography lesson. Teachers also are encouraged to use these Buddy-Up pairings at other times, for instance, asking children to stay with their "buddies" during class routines, such

as eating snacks, or playing outside. Thus, there is great flexibility in how Buddy-Up activities might be used. We ask teachers to implement one or more Buddy-Up activity on at least four days of the week. As such, Buddy-Up activities are meant to be integrated into as a regular part of the classroom experience.

At the end of the time period (e.g. a week), Buddy-Up partners are rotated such that over the course of the year students have opportunities to work with a wide variety of peers. We leave it up to the teachers' discretion as to who to pair with whom each week and whether some pairs should be avoided (e.g., in cases of a damaging bully-victim relationship). Once teachers set up the expectation that the students will engage in Buddy-Up activities, the primary demand on teachers is to identify each week's buddies. Thus, the Buddy-Up strategy is intended to be seamlessly integrated into the classroom structure and to take little additional time or resources outside of those regularly used in teaching.

Whereas Buddy-Up targets classroom inclusion by addressing the interactions and relationships among dyads and small groups, Meet-Up targets inclusion by addressing the social norms and peer interactions that operate at the classroom level. The primary goal of Meet-Up is to foster a classroom climate in which diverse students (e.g., girls and boys) feel connected with one another and engaged in a supportive classroom community. This is done by providing regular and structured opportunities for the class as a whole to discuss and make decisions about classroom rules, to share information about themselves and get to know one another, and to become aware of their similarities while also recognizing and appreciating differences. By doing these group activities, the "groupness" of the class is reinforced, and the goal is for the class to become a broader and more salient dimension for categorizing peers than are gender groupings. During Meet-Up activities, children are encouraged and supported as they engage in respectful

discussions, including expressing one's own ideas as well as listening to others and considering others' perspectives. They also engage in collaborative decision-making and problem-solving regarding classroom norms, learn to recognize positive and negative consequences for their own and others' behaviors, and come to appreciate and celebrate one another while also recognizing the factors that bind them together. In other words, the ultimate goal of Meet-Up is to create a classroom environment where students feel valued and feel a sense of belonging.

Like Buddy-Up, Meet-Up is intended to be integrated into the regular routine of the classroom, ideally occurring multiple times each week. Also, like Buddy-Up, Meet-Up requires no additional resources beyond what is typically available in classrooms. There are two phases to Meet-Up. The first occurs during the first one to two weeks of the school year, as teachers are establishing their classroom expectations. It is an opportunity for the students to engage in the process of setting goals regarding how they should interact with one another (e.g., by discussing the importance of inclusion and by inviting students to generate ideas, such as "we should help each other" or "we should listen to each other", for achieving an inclusive classroom). After the initial phase, Meet-Up becomes a forum for sharing ideas and experiences as a class, for listening and responding respectfully and empathically to what others have shared, for reviewing, in a safe, supportive, and respectful way (rather than a punitive way) progress toward meeting the class goals, and for engaging in a fun activity together. Furthermore, building on the idea of supporting contact with diverse peers, teachers can use Meet-Up to seat children near buddies or find other ways to mix up students' seating so that they have opportunities to be near diverse peers. In general, we encourage teachers to use both Buddy-Up and Meet-Up with their students in their classes.

Supportive evidence. In addition to being theoretically grounded, Buddy-Up and Meet-

Up strategies are built on existing basic and applied research studies that speak to the effectiveness of the practices. For instance, several studies have demonstrated benefits of peer-pairing interventions (e.g., Hektner, August, & Realmuto, 2003). In past work, these have predominantly been used to support skill development for at-risk youth by pairing the target child with a non-risk peer (Mervis, 1998). Similarly, research has shown that teachers' use of a morning meeting practice, in which teachers interact with children in a large group setting, is associated with healthier teacher-student interactions (Abry, Rimm-Kaufman, & Curby, 2017). Meet-Up builds on this approach by focusing specifically on student-to-student interactions and the promotion of inclusion among diverse peers. Moreover, research provides support for the notion that students who interact more often with diverse others have more positive outcomes than those with less exposure to diverse others (e.g., Graham, Munniksma, & Juvonen, 2014).

Our preliminary findings support the efficacy of Buddy-Up and Meet-Up in enhancing students' interpersonal behaviors and relationship qualities. In a test of Buddy-Up with preschool children, we conducted a quasi-experimental trial in public preschools that predominantly served a Latinx population of students (over three-fourths of the students were Latinx) (Hanish et al., 2019). Children were either in classrooms using Buddy-Up or in a comparison classroom, and the Buddy-Up activities took place over the spring semester. Following a two-week pretest period at the beginning of the spring semester, preschool teachers in the Buddy-Up classrooms began to implement the strategy, and they continued to do so throughout the semester. Specifically, teachers created unique Buddy-Up pairs each week, prioritizing other-gender pairings. Because of the young age of the participants, teachers posted pictures of the week's Buddy-Up pairs on the wall so that children would be reminded of their buddies. Over the course of the week, teachers implemented Buddy-Up activities on at least four days of the week, as

consistent with their learning goals.

Children's free-play activities and interactions (teacher-specified Buddy-Up times were excluded) were observed by independent observers who were blind to the hypotheses. Observations took place on multiple days each week, and children were observed during both indoor and outdoor activities. Observers coded whether children were playing alone or interacting with teachers or peers. When children were observed to interact with peers, additional codes included those for the identity of the peer(s), gender of the peer(s), and quality of the interaction. Analyses revealed significant effects of Buddy-Up on preschoolers' tendency to engage with peers, such that the Buddy-Up preschoolers were more likely to spend time engaged in social interactions. They were also more likely to interact with an expanded repertoire of peers, playing with more a greater number of different peers. Finally, the effect of Buddy-Up was also seen in greater number and array of play partners, such that children exposed to the intervention were more likely to play with both same-gender (boys only) and other-gender (for both boys and girls) peers. Thus, findings demonstrated positive effects of Buddy-Up on gender integration and inclusion.

In another study, we tested the joint effects of the implementation of both Buddy-Up and Meet-Up in a sample of fourth-grade students (Miller et al., 2018). Children were assigned by school to either a Buddy-Up+Meet-Up condition or a control condition. Following the pre-test, teachers in the intervention condition implemented Buddy-Up and Meet-Up in their classrooms throughout the academic year. Several times each week, teachers structured classroom Meet-Up sessions. Because Meet-Up sessions were integrated into the children's regular school experience, teachers sometimes reinforced concepts discussed in Meet-Up by referring to what was discussed at other times during the school day (e.g., reminding students of the class norms,

revisiting an experience that a student had shared). Thus, the Meet-Up practice became a regular part of children's school experience. Similarly, teachers implemented Buddy-Up activities several times each week, and these were also integrated into the school day. Unlike the preschool Buddy-Up assessment, however, in this trial, teachers were encouraged to rotate buddy pairs across all peers, such that each child had the opportunity to partner with every other child (other- and same-gender, other- and same-ethnicity, etc.). Thus, in this trial, diversity of peer pairings (broadly defined) was emphasized.

Data were collected via teacher and student reports at pre- and post-test. Findings from this trial revealed effects of Buddy-Up+Meet-Up on indicators of peer relationships and the classroom climate, controlling for initial levels. Specifically, students who participated in Buddy-Up+Meet-Up reported liking their peers more (stronger effects for boys) and were more likely to perceive their peers as nice. Teachers' reports corroborated students' perceptions, showing an effect of Buddy-Up+Meet-Up on prosocial behavior (increase relative to control), aggression (decrease), and peer victimization (decrease; stronger effects for boys). Furthermore, students who received Buddy-Up+Meet-Up reported improved classroom supportiveness as compared to those in the control condition. Thus, the fourth-grade assessment of Buddy-Up+Meet-Up, similar to the preschool assessment, revealed positive benefits of these simple but intentional efforts to create inclusive classroom environments.

Although the Buddy-Up and Meet-Up strategies were initially designed to promote gender-integrated classroom relationships, these strategies have broader utility. That is, they can be (and have been) utilized to promote inclusive relationships with classmates across a much wider array of diversity indicators. Thus, there is potential for Buddy-Up and Meet-Up to enhance students' abilities and motivations to build effective relationships with peers who differ

from themselves on many dimensions. In fact, these strategies were developed on the basis of research and theory that comes from areas outside of gender. Thus, although most of our efforts have focused on their use for promoting gender integration, our experience thus far suggests that they can be utilized to promote inclusion across a wide range of demographics. Further consideration of the generalizability of these intervention strategies is clearly warranted.

Challenges to implementation. There is a challenge that needs to be considered in implementing the Buddy-Up and Meet-Up strategies. Consider the fact that both of these strategies have been developed for use in classrooms and with the purpose of improving the classroom climate by increasing inclusion and engagement between students who typically do not spend much time with each other. Although most classrooms are coeducational and thus gender diverse, they may – or may not – reflect diversity as more broadly defined (e.g., ethnic and cultural diversity, socioeconomic diversity, and diversity on other demographic indicators as well as diversity in skills and abilities, behaviors, and perceptions) in the larger school. For instance, practices such as academic tracking and placing students identified as having special needs in non-mainstream classes can result in classrooms that are more homogeneous than heterogeneous in student composition on certain dimensions (e.g., academic skills, ethnicity, etc.) and thus represent segregated microcosms of the larger, and often more heterogeneous, school. Furthermore, some schools are more diverse than others. Building inclusive relationships among boys and girls in the class may benefit the local classroom climate, but care must be taken to avoid reifying segregation of groups in the larger school culture. Solutions might involve expanding the strategies to be school inclusive (rather than simply class inclusive) and developing an overall culture of inclusion.

In our experience, these challenges are more likely to be seen in middle and high schools

than in the preschool and elementary schools in which we have worked to develop the Buddy-Up and Meet-Up practices. Structural differences in schools associated with grade may also influence the challenges associated with effective implementation of Buddy-Up and Meet-Up. The fact that older children move from one classroom to another, each typically with a unique group of classmates, makes it more challenging for implementing and sustaining these practices across classrooms and content subjects. Moreover, the structure of schooling in the later years also may limit older children's and youth's access to diverse peers as tracking of students by academic performance is more likely to take place in middle and senior high school. This academic segregation affects social interactions as intergroup contact and diverse friendships are less prevalent in schools that track their students (e.g., Khmelkov & Hallinan, 1999). In the later grades, perhaps coeducational extracurricular settings provide a positive context for Buddy-Up and Meet-Up to be implemented (e.g., sports, camps, community service, etc.) in activities that unite youth (Knifsend & Juvonen, 2017).

Other challenges might also arise when implementing the strategies with older, relative to younger youth. For example, encouraging older children and youth to see out-group members as part of the 'team' might be more difficult than is the case for younger children because of the more complex and advanced sense of self and in-group membership that older children and youth have (Dovidio, Gaertner, & Kawakami, 2003). Given this, intergroup contact may potentially be more likely to produce threats to the positive distinctiveness of their original groups for adolescents and youth relative to younger children. As previously noted, it may be critical that contact and interactions be positive for positive outcomes to result. This is relatively easy for younger children who can be brought together around play and other fun activities. For older children, adolescents, and youth, this is more challenging as the emphasis on academics

and performance increases. In addition, issues surrounding romantic relationships arise during this time making the interactional context more complex. Moreover, issues related to gender discrimination, harassment, and bias increase over time and can undermine positive boy-girl interactions and relationships. For example, Andrews et al. (2018) found that youth who experienced greater gender discrimination early in middle school had fewer cross-gender friends across middle school than those youth who experienced less gender discrimination. To address some of this, our perspective has been that we need to start breaking down barriers between diverse peers and fostering friendships among diverse children early in development and that these efforts will impact later comfort and resilience as children and youth encounter increasing challenging and diverse peer environments. Positive experiences with diverse peers early in development may also limit stereotyped bias and inform the development of self and social identities (Brown & Juvonen, 2018).

Discussion and Conclusion

Throughout this article, we have argued that when classrooms are gender integrated and gender inclusive, there are positive social and academic outcomes for students, teachers, and the classroom/school climate as a whole. Our focus on gender reflects the fact that gender is one of the first and strongest ways in which children and youth (and adults) organize their social interactions and relationships. By some estimates, gender accounts for 70-80% of the variance in students' choices of peer partners (Fabes, Martin, & Hanish, 2003; Martin & Fabes, 2001). Over time, this gender segregation may contribute to the emergence of more serious interactional problems, such as gender-based bias, harassment, and bullying and the development of harmful stereotypes about girls' and boys' academic abilities and interests, which can hinder academic success (Fabes, Pahlke, Martin, & Hanish, 2013; Hunt & Gonsalkorale, 2014). Moreover,

Maccoby (1998) has argued that the roots of difficulties in adult male-female relationships evolve out of the gender-segregated nature children's peer preferences.

Whereas exclusion from other-gender interactions can potentially be deleterious, inclusion with other-gender peers can potentially be beneficial. Playing with other-gender peers provides increased exposure to gender neutral and cross-gender activities, thereby expanding children's opportunities to learn new skills (Fabes, Martin, & Hanish, 2003). Mixed-gender interactions have been found to be related to lower rates of aggression and peer victimization, as well as increased levels of prosocial interactions (e.g., Faris & Felmee, 2011; Xiao, Alexander, & Fabes, 2018). Children with other-gender friends tend to be more sociable and are more likely to exhibit positive affect in the classroom than those without other-gender friends (Howes, 1988) and have more positive and less negative attitudes toward the other gender (Halim et al., 2019). And, feeling included by and efficacious in interactions with other-gender peers have been found to be positively related to classroom climate (Zosuls et al., 2014).

Despite the relative ubiquity of gender segregation, there is evidence that the gender-segregation cycle can be affected and that the gender-integration cycle can be effectively promoted. The development of Buddy-Up and Meet-Up were based on the application of the Intergroup Contact and Peer Exposure theories, and the Buddy-Up and Meet-Up strategies have shown promising outcomes for individual students, for the quality of relationships in classrooms, and for the overall classroom climates. Strategies such as these that that allow boys and girl to feel socially connected are crucial to children's success (Baumeister & Leary, 1995).

Although schools and educators are tasked with the creation of socially harmonious school/classroom environments that promote positive academic, social, and emotional outcomes., this is not a simple feat. For example, addressing the gendered-nature of students'

peer relationships at school is complicated, involving structuring and supporting the peer interactions that occur in dyads and small and large groups as well as teaching the social, emotional, and relational skills needed to interact competently. Educators face stress from those stakeholders who are outside of the school, in the form of pressure and demands from parents and policy-makers, and often these demands are for a more rigorous academic (and not social) focus in the classroom. Additionally, despite teachers and parents recognizing the importance of helping children develop healthy life-long relationships skills, there is a lack of recognition of issues related to peer segregation (especially for gender) and a lack of understanding of the best practices that promote harmony in schools. Rather than being a distinct or separate part of the classroom experience, the relational tone of the classroom has a strong and direct impact on teachers' ability to focus attention on academic activities, on children's ability to collaborate and participate in learning tasks, and on their achievement outcomes. This underscores the need to create classroom and school climates, policies, and structures that support peer relationships and socio-emotional learning (Hanish et al., 2016; Juvonen, 2018).

Although our focus on gender integration reflects our study of boys and girls, as previously noted, we acknowledge that gender is not binary and that for classrooms and schools to be truly gender integrated and inclusive, they must support students across the gender spectrum. Thus, efforts related to gender integration in schools must also address ways to help LGBTQ students feel safe, secure, and connected. Evidence suggests that quality of peer relationships play an important role in facilitating inclusion for sexual-minority students. For example, studies show strong associations between gay-straight alliances (that are typically youth led) and the well-being and safety of sexual-minority students (Ioverno, Belser, Baiocco, Grossman, & Russell, 2016; Poteat, Yoshikawa, Calzo, Russell, & Horn, 2017).

We believe that the strategies and ideas presented in this paper for promoting gender integration/inclusion would apply for LGBTQ students. For example, teachers could bring students who do and those who do not identify themselves as LGBTQ together in cooperative academic activities as a way to reduce out-group bias and prejudice. Although the research on intergroup contact and attitudes/behaviors towards LGBTQ peers in youth is sparse, the adult literature does provide some support for the conclusion that knowing a gay or lesbian person leads to improved attitudes and reduced prejudice towards gay and lesbian people (Herek & Capitanio, 1996). Heinze and Horn (2009) examined this question in adolescents and found that adolescents who had a lesbian or gay friend were relatively less likely to judge homosexuality as wrong, were comfortable interacting with lesbian or gay peers and were likely to evaluate exclusion and teasing a lesbian or peer as wrong. However, adolescents reporting casual contact did not report more favorable attitudes than those students reporting no contact, and in some cases, reported more prejudicial attitudes. It may be that the quality of contact or relationship moderated these patterns.

Such findings support the notion that contact in and of itself (as previously noted) is not enough to improve intergroup attitudes and decrease LGBTQ prejudice during this developmental period. Heinze and Horn noted that, due to the increased salience of sexuality and sexual identity in adolescence, and the fact that homosexuality is a highly stigmatized identity, the type of intergroup contact is particularly important during this developmental period. Such findings underscore the research suggesting that simply putting people together under non-optimal contact situations may produce effects that are detrimental to goals of improving intergroup relations. However, bringing LGBTQ students together with non-LGBTQ students can have positive effects on classroom and school climates if adults do this in

a way that provides students opportunities to interact in positive, meaningful, and rewarding ways (Heinze & Horn, 2009).

Finally, it is important to note that society is becoming increasingly diverse and interconnected. Despite this, many students who do not fit the stereotypic majority norm are still made to feel that they are not accepted, do not feel safe or efficacious, and are left out, excluded, and harassed. Helping all students feel included is a challenge that has to be undertaken by our schools (Juvonen, 2018). But diversity in and of itself does not guarantee inclusion. For example, as we have discussed here, although most U.S. schools and classes are coeducational and are thus *gender diverse* in terms of having both boys and girls in them, this does not guarantee that they are *gender inclusive*. Similarly, for all forms of diversity – race/ethnicity, language, immigration status, sexuality, gender expression, and ability levels, etc. -- having diversity within the classroom is not necessarily going to mean that students feel included and safe and benefit from the diversity. Furthermore, the adults in children's lives have different experiences with peer diversity than do the children and youth of today. As Fabes and colleagues noted (Fabes, Martin, & Hanish, 2018), many of the adults who parent, mentor, teach, and advise children and youth today did not grow up in a peer context that is as an openly diverse as it is now. Moreover, many majoritized adults have not experienced the discrimination and prejudice that minoritized children and youth have. Thus, many of these caring adults, although well intended, are often not equipped with the knowledge and skills to help minoritized children and youth (and majoritized children and youth as well) navigate diverse but often challenging environments. For these reasons, it is all the more urgent to conduct research and develop effective strategies that can be used by caring adults as they build more inclusive educational environments, practices, and policies for today's children and youth.

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