The Challenge of Implementing Small Group Work in Early Childhood Education

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Abstract

This paper seeks to improve our understanding of the challenges faced by teachers and student-teachers in the process of implementing small group work (SGW) in early childhood education (ECE). In light of the discrepancy between the clear benefits of SGW in education – its solid theoretical foundation – and its sparse and poor implementation, we posed the following research questions: (a) What are Israeli teachers' perceptions of and attitudes toward small group work and its implementation in ECE? And (b) What do teachers see as problematic or, conversely, helpful in overcoming difficulties related to its implementation in ECE? Both qualitative and quantitative methods were employed: a questionnaire with closed and open-ended questions to measure the attitudes and perceptions of thirty experienced teachers, as well as action research documenting the implementation of SGW in two cases. Findings showed more positive attitudes toward SGW than toward the feasibility of its implementation, which was frequently associated with drilling skills, rather than discourse that supports the construction of knowledge. Difficulties in implementing SGW included a lack of coordinated staff work and the absence of routines and planning of space and time. The action research indicated that the effective implementation of SGW necessitates planning, observation, and documentation of both the interactions in groups as well as classroom management aspects related to its implementation, and that it requires a commitment to the children's well-being and learning.

Keywords

Small group work, cooperative learning, collaborative group work, classroom management

Introduction

Small groups engaged in cooperative learning have been recognized for about four decades (Gillies & Cunnington, 2014) as a form of classroom organization and instruction that enhances meaningful learning in schools

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(Bertucci, Coute, Johnson, & Johnson, 2010; Johnson & Johnson, 2002; Shachar & Sharan, 1994; Slavin, 2013) and preschools (Sum Kim & Farr Darling, 2009; Sills, Rowse, & Emerson, 2016). Such groups were shown to benefit thinking and academic achievement in various fields of study – mathematics and science (Lazarowitz & Karsenty, 1994; Lou, Abrami & d'Apollonia, 2001) as well as literacy and language (Slavin, 1996; Whiehurst et al., 1988). Participation in small, cooperative groups was also found to beneficially affect relationships among children and their learning of strategies for conflict resolution (Emmer & Stough, 2001). Due to the robust evidence of the benefits of small, cooperative group work, teachers around the globe have been encouraged to adopt this strategy (Gillies, 2015). In line with this trend, small group teaching has been included in the New Horizon reform [ofek hadash] instituted in Israeli elementary schools since 2008 and preschools since 2010.

Groups in Society and Education

Social groups are "natural" to human beings. As put by Johnson and Johnson (2003, p. 579), "Humans are small-group beings. We always have been and we always will be." It is therefore not surprising that various formats of small groups exist in society and education. Forsyth (2006, pp. 2-3) offered the following basic definition of groups: "two or more individuals who are connected to one another by social relationships." Kurt Lewin drew attention to the fact that social relationships in groups involve interdependence – the understanding that all members of the group "are in the same boat" (Brown, 1988, p. 28). To get something done, one must cooperate with others.

In educational settings, one finds several types of groups: socially formed voluntary groups of students or teachers as well as planned groups engaged in classroom learning. The planned group work is performed either independently by pupils adhering to teachers' instructions or guided by teachers. In any case, group work in educational settings is in some cases based on positivist assumptions, having group members work on the improvement of individual skills (Figure 1), or having a small number of children listen to the teacher (Figure 2).

Figure 1. Performing Individual Tasks Sitting in Groups
Photo: Anat Ben-Shabat

Figure 2. Frontal Teaching in Small Groups
Photo: Yfat Waxman

Small group work is often referred to as cooperative or collaborative learning, emphasizing relationships and interdependence in groups for the attainment of joint goals. Cooperative learning is more than just group work. Cooperative learning is organized and managed group work in which students work cooperatively in small groups to achieve academic as well as affective and social goals (Jacobs, Lee, & Ng, 1997). Figure 3 shows collaborative group work as opposed to the group seating arrangements in Figures 1 and 2 that involve neither cooperation nor collaboration among the children.

Figure 3. Cooperative small group work.
Photo: Yfat Waxman

Theoretical Foundations

Cooperative small group work in education is partially based on the idea of dialogism raised by Bakhtin – one of the most important theorists of discourse in the twentieth century (Robinson, 2011). The notion of dialogism recognizes the existence in human discourse of a multiplicity of perspectives and voices. Bakhtin emphasized (1986) that each voice is important and deserves full attention, the goal of the discourse being to maintain communication even when agreement is not forthcoming. This idea also aligns with Rogoff's claim (2003) that children should be perceived as competent and active participants in groups, classes, communities, and cultures. Malaguzzi, the ideological founder of the Reggio Emilia early childhood educational system, also states, "Always and everywhere, children take an active role in the construction and acquisition of learning and understanding" (Malaguzzi in Gandini, 2012, p. 44).

Cooperative small group work is also based on Vygotsky's socio-cognitive theory (1978), which emphasizes both the social nature of knowledge construction and the importance of discourse, of oral language as a "carrier" and creator of thought. Children participating in groups are expected to contribute their evidence-based interpretations to the existing body of knowledge, which are intended to improve the understanding of discussed ideas (Bereiter & Scardamalia, 1996).

The heterogeneous composition of small groups based on the participants' ability, gender, race, or age is rooted in the assumption that discourse with peers is a central source of learning in groups. Indeed, Vygotsky proposed (1978) that collaboration with more capable children, in addition to adult guidance, is likely to lead to a child's improved ability to solve problems.

The socio-constructivist rationale of small groups is presented by Malaguzzi (1993, pp. 11-12):

> We consider relationships to be the fundamental organizing strategy of our educational system [for young children from birth to age 6]…and we consider small groups the most favorable type of classroom organization for an education based on relationships…The organization of small-group work is much more than a simple functional tool; it is a cultural context that contains within itself a vitality and an infinite network of possibilities. In schools of young children, work in small groups encourages processes of change and development and is much desired by children…Interaction among children is a fundamental experience during the first years of life. Interaction is a need, a desire, a vital necessity that each child carries within.

Malaguzzi's statements summarize the theoretical foundation of small group work in ECE, and is considered an organizational context that enables sustained interactions and is the basis of both relationships with and among children and a basis for development and learning.

Small Group Work (SGW) and Classroom Management

As noted, cooperative small group work is an organizational context. Its systematic use in school and preschool classes depends, among other factors, on the ability and willingness of the teacher to "manage" her class in a way that enables the systematic implementation of SGW throughout the school year, in addition to her understanding of the processes of its operation. The criteria for allocating the children to groups, the number of groups in the class, the place and the time for group work, the division of tasks among staff, and the subjects to be learned, as well as the planning of how these subjects will be mediated to the group, are issues that need to be

addressed in the process of implementing systematic group work. All these are part of classroom management that includes both perspectives of observing and understanding class work, as well as various competencies – moral leadership, proactive and ecological perceptions of the class, good relations with children, parents, and staff, and self-regulation (Tal, 2016). Based on Evertson and Weinstein (2006) and Doyle (2006), Tal defined moral classroom management as an evolving "meta-competency of the school or preschool teacher with which she creates learning conditions in the classroom – traditionally referred to as order – that facilitate learning among children with diverse learning characteristics and ensure the emotional well-being of all those involved in the process (both children and teachers)" (2016, p. 3). Aligned with this definition, the implementation of cooperative small group work needs to be driven by the motivation to create well-being and learning conditions for all children (that is moral leadership) based on the understanding that – as put by Malaguzzi above – this organizational context enables educators to promote intimate relationships with and among children. Beyond moral leadership, the planning of group work is not possible without activating proactive and ecological thinking that considers the characteristics of children, their families, and the staff, and the available resources such as time, space, and materials. The product of this is likely to be a socio-moral plan (Evertson & Weinstein, 2006; Tal, 2016) of division and activation of all the groups included in the class throughout the school year (see Tal, 2006 for an example of this plan). The operation of cooperative, small groups is impossible without the teacher having good relations with the children and other staff. Good relations must be based on trust and characterized by listening, respect for the ideas and opinions of others, and the organization of existing knowledge and production of new knowledge based on the participants' ideas. At the heart of the implementation of classroom management of small groups, the teacher must constantly monitor her decisions and actions, and modify them when needed to better attain her educational goals.

Gaps Between Theory and Practice

Although small group learning is not a new pedagogical strategy, and its potential benefits for the emotional, cognitive, and language learning of all age groups are well established, its day-to-day practice in schools and preschools is infrequent and poorly implemented. Baines, Blatchford, and Kutnick (2003) reported in a study about the implementation of SGW in Britain that elementary school students rarely worked in groups although they often sat in small groups. Kohn (1992) pointed to the difficulty teachers have in systematically implementing cooperative, small group work in their classes due to their reluctance to invest sustained efforts in forming and maintaining the organization of small group work, as well as to their opposition to more open communication between teachers and students. Sharan (1986) claimed that the educational system fails to support systematic implementation of cooperative group work. Wasik (2008) asserted that cooperative small group work is "probably one of the most underused and ineffectively implemented strategies in early childhood classrooms. Small groups are often used without an identified purpose and without careful planning to support the instruction of a specific concept or idea" (p. 515). The research presented in this article addresses the discrepancy between the importance of SGW with its sound theoretical and empirical foundations and its application in educational frameworks. The goal of this research was to understand how teachers understand and implement group work in their practice.

Two research questions were posed:

1. What are the teachers' perceptions and attitudes toward the concept of

small group work and its implementation in ECE in Israel?

2. What did preschool teachers see as problematic in the implementation of SGW and what did they see as helpful in overcoming difficulties in its implementation?

Methods

Both qualitative and quantitative methods were employed to ascertain the perceptions and attitudes of Israeli ECE teachers toward SGW. The quantitative analysis was based on closed questions about attitudes toward SGW and the likelihood of its implementation. Qualitative methods were used to analyze the responses to open questions about the implementation of SGW by the teachers. In addition, two cases of action research performed by student teachers and based on qualitative methodology were analyzed.

Context and Participants

The research presented in this article was carried out in Israel based on data collected between 2013 and 2016 in the context of the New Horizon [ofek hadash] program. New Horizon is one of the far-reaching reforms introduced in the preschool and elementary school system in Israel at the beginning of the 21st century. One element of this reform is 900,000 individualized hours (small group learning with up to five pupils) added to the public-school system (Azulay et al., 2013). The school day in Israel starts at 8 AM and ends at 2 PM, six days a week. Preschool classes for 3-6-year-olds have up to 35 children and staff that includes a head teacher who typically works 5 days a week or, a substitute teacher who has an academic degree like the head teacher, the primary assistant who typically works five days a week, and a substitute assistant. The implementation of SGW must take these conditions into account.

Thirty female teachers and two student teachers participated in the research. The thirty were experienced preschool teachers, all enrolled in an M.Ed. program in Early Childhood Education in 2014-16. Their teaching experience ranged from 4 to 26 years (M=12; SD=4.99). These teachers were diverse ethnically – 26 Jewish and 4 Muslim teachers. Twenty of the thirty were enrolled in a course about SGW that was designed to enhance their theoretical understanding of SGW and increase their effective practice of it. The students in the SGW class were divided into five groups. Each group had to complete an assignment on the theoretical foundations of SGW – in general and specifically in ECE – and to collaboratively analyze data collected by each group member over the course of five consecutive days concerning the implementation of group work in their educational settings.

Two other participants were third-year student teachers enrolled in a classroom management seminar in partial fulfillment of their B.Ed. degree in ECE. These student teachers conducted action research focused on the implementation of SGW in their fieldwork practice in 2013. In both cases, the student teachers chose to research their own implementation of SGW and both decided, for various reasons, to plan or implement SGW in all their classes, beyond what was required by the teachers' college.

Tools and Procedures

Data gathering tools included a questionnaire with two closed questions and several open-ended questions. The questionnaire was completed by thirty participants in March 2015 – twenty teachers enrolled in the SGW course and ten teachers in the same program, but not in the course. A year later, in June 2016, the same questionnaire was mailed to the twenty who took the SGW course.

In the action-research studies, analysis was based on the final seminar paper;

observations and documentation of events; the children's art work; and photos of the groups.

The Questionnaire

The closed questions: Participants were asked to what extent they agree with each of the following two statements on a ten-point scale (10 = very much agree; 1 = do not agree at all):

- I am in favor of small group work in early childhood education.
- I believe that small group learning in early childhood education is feasible.

The open questions:

- Write a paragraph that describes small group work in early childhood education.
- What do you think of small group work in early childhood education?
- What is the rationale behind the use of small group work?
- What made you decide to implement small groups in your class?
- What kind of groups operate in your class?
- How are children divided into groups?
- Who leads the groups?
- Are there pre-arranged places and/or times for small group work?
- What difficulties do you encounter while implementing small group work?

Data Analysis

Statistical analyses were performed on the quantitative attitude responses. Mean and standard deviations were performed on the questionnaire responses of the thirty students in March 2015 and again on the responses of the ten students in 2016. Other tests measured the differences in attitudes, perceptions, and implementation of SGW at two points in time. Content analysis was performed on the open questions and on the documents used in the action research to detect common themes related to the teachers' perception of SGW.

Ethics

The participants gave their consent to use the data. The children in the photos cannot be identified – the photos were either taken from behind or the faces were blurred.

Results

The findings are presented in two parts: (a) teachers' attitudes toward and perceptions of SGW and their belief that it can feasibly be implemented (examined at two points in time); and (b) the results of the action research – how student teachers coped with challenges as they attempted to systematically implement SGW in their preschool field placements during their third year of studies.

Attitudes Toward and Perceptions of SGW and its Implementation

Attitudes toward SGW – initially more positive than a belief in its feasibility

Data about the teachers' attitudes toward small group work in early childhood education (Figure 4) revealed a significantly more positive perception of SGW than a belief that it can be implemented. A two-tailed test for paired samples showed that the mean of the attitudes that favor SGW in ECE is significantly higher than the mean evaluation of the feasibility of implementing it ($t(28)=4.06$, $p<.0004$; $M1=9$; $SD1=1.40$; $M2=7.36$; $SD2=2.17$). Significant differences between positive attitudes toward SGW and evaluation of its feasibility were also found when the attitudes of the twenty students enrolled in the SGW course were analyzed (two-tailed, paired sample t-test: $t(18)=2.22$, p,04; $M1=8.9$; $SD1=1.64$; $M2=7.7$; $SD2=1.98$). Interestingly, although most of the data show this same pattern, two teachers gave the opposite response, stating that although it is possible to implement SGW in ECE, they do not favor or appreciate it. One of these cases will be presented below.

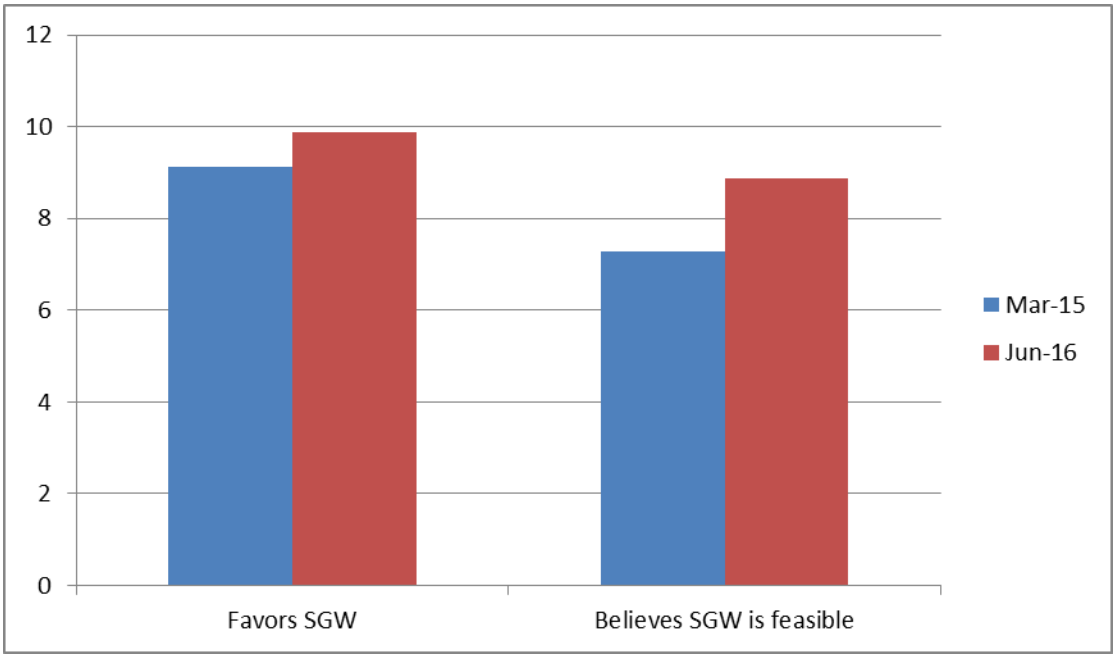

Figure 4. Means of attitudes toward SGW vs. evaluation of possibility of its implementation
Attitudes: Agreement (0 = least; 10 = most)
(March 2015 and June 2016)

Likelihood of implementing SGW – higher 15 months after the course ended

Figure 4 shows that the teachers who responded to the follow-up 15 months after completion of the small group course have significantly more faith in its feasibility than they had at the beginning of the small group course (a two-tailed t-test for paired samples was performed comparing mean attitudes at the beginning of the course and at follow up time, $t(8)=2.42$, $p<.05$; $M1=7.29$, $SD1=2.21$; $M2=8.86$; $SD2=1.07$). Figure 4 also shows more favorable attitudes toward SGW at the follow-up compared to the beginning of the course, in addition to the greater belief in its feasibility, though the t-test did not reach statistical significance. The statistical significance of the more favorable attitudes towards SGW and its feasibility at the follow-up compared to the beginning of the course suggests a possible connection with the coursework, and this is supported by the responses to the open questions. However, the number of respondents is low (ten out of twenty), and may reflect the self-selection of respondents based on successful SGW implementation. Nevertheless, I consider the effective implementation of SGW by each teacher to be important as it means that in more (of course, not all) preschool classes of teachers who participated in the SGW course, SGW was instituted.

To substantiate this, the quantifiable evaluations of two teachers are presented in Table 1, as well their replies to the open questions 15 months after the end of the course. These teachers were selected as they show different patterns of improved ratings from the first to the second measurement of attitudes. Yael, a preschool teacher whose initial rating bucked the common trend, rated the feasibility of SGW higher (9), but was not convinced it was a good idea (a rating of 5). Galit, the other student teacher, gave a more typical high rating to the benefits of SGW (9) and a relatively low rating to its feasibility (7). At follow-up, both student teachers gave a maximum rating of 10 to the importance of SGW in ECE as well as its feasibility.

Table 1
Two Teachers' Evaluations of Perceived Benefit and Feasibility of SGW in ECE (March 2015 and June 2016)

	Perceived benefit of SGW		**Perceived feasibility of SGW**	
	March 2015	**June 2016**	**March 2015**	**June 2016**
Yael	5	10	9	10
Galit	9	10	7	10

Yael and Galit's comments about what happened following the course shed light on factors that may impact the willingness of teachers to implement SGW and the quality of its implementation:

> Yael: SGW was not part of my daily planning. The preparation I got was lacking in this respect and it was not clear to me how to do the work. Therefore, the change this year [2015-16] was substantial. The first thing I learned was that the subject you teach does not matter, but what matters is the added educational value… [After the course] I understood what small groups are and their goals – to form relationships among children and between adults and children…In preschool there is more than learning. Children have a lot to tell us, but they're not allowed to engage in discourse (follow-up questionnaire, June 2016).

> Galit: The course did not provide me with new knowledge about SGW nor did it contribute to my sticking to this approach, as I was already convinced of its benefits. It did help with the classroom management and improved my leading of the learning process…it led to more flexible divisions of the children into groups…It contributed to greater clarity about what homogeneous and heterogeneous groups are and when to employ each of them (most subjects, heterogeneous groups; math, either homogeneous or heterogeneous) when specific children have a hard time with math, I consider individual work with them (follow-up questionnaire, June 2016).

Yael's and Galit's summaries suggest that teachers' views of SGW and its implementation can be changed and that what is needed is both a sound understanding of the rationale of SGW as well as a discourse concentrated on the classroom management aspects of its implementation. The two teachers attribute the changes they experience to the coursework. In both cases, we witness inferences made by the teachers themselves based on the learning conditions in their own environments and decisions on how to better serve the children's best interest. In Yael's case, she displays an understanding of discourse and the importance of listening to children and forming meaningful relationships with and for them. In Galit's case, she better understood how to use homogeneous versus heterogeneous groups in preschool work, and when to combine group and individual work.

SGW – commonly based on positivist thinking

Analysis of the teachers' responses to the open questions at the beginning of the course (March 2015) revealed that their use of group work was mostly inspired by a positivist epistemology: They tended to focus their group work with children on measurable skills (e.g., their

acquaintance with letters, worksheets focused on numbers), and reported that children were frequently divided according to some mapping of academic skills or homogeneous age groups. While many teachers were initially aware of the advantages of the small group in getting better acquainted with each child and forming deeper relationships with the children, virtually none of the respondents mentioned the contribution of the children's discourse to their learning. Most teachers perceived the work in small groups to be an effective strategy.

However, all teachers who participated in the course reported that they never dedicated more than two learning encounters to the same topic. SGW was mostly used as a means to enhance specific skills. Group membership was not always fixed, but rather teachers formed groups of children in an ad hoc manner. In addition, the motivation to implement SGW was in most (but not all) cases extrinsic, i.e., teachers engaged in group work because of external demands rather than their own belief and interest in group work (Ryan & Deci, 2017, p. 180). One of the most cited reasons in this study for implementing small group work was the demand by the superintendent, rather than a deep understanding of its benefits to children's learning and well-being. In preschools in which superintendents seemed more consistent about implementing SGW, it was employed more systematically, and was based on fixed groups and integrating SGW into the daily schedule.

Lack of an ecological perspective and of proper planning of SGW

Analysis of the open questions also revealed that not enough systematic and reflexive thinking had initially been given to the classroom management aspects of implementation, such as assigning a fixed time, finding a suitable place, or agreeing upon a division of labor with colleagues. While some teachers (approximately a third of the group) reached agreements with the assistant about the coordination required to perform SGW, in virtually no case was the substitute teacher (who complements the teacher's work) taken into consideration. Lacking was a more ecological perception of the preschool, its entire staff, and the resources that could be used to effectively implement the work in small groups.

Coping with Challenges Encountered While Implementing SGW

To better grasp the meaning of implementing SGW, data from two cases of action research are shown. The difficulties encountered by the student teachers who planned and performed action research were similar in many ways to the difficulties reported by the teachers in their questionnaires. What is special about these cases is that they advance our understanding of the processes of change necessary for the effective implementation of SGW by teachers, thanks to systematic documentation and reflection included in their studies.

Case 1. Redistributing power between the teacher and the children, and organizing group work to ensure the children's participation

This case shows how Michal, a third-year student teacher enrolled in a Classroom Management seminar, dealt in her third year with the question, "How can the participation of all the children be ensured in guided small groups?"

Michal noticed that in all four small, fixed, heterogeneous groups of 3- to 4-year-olds that she created and guided in her fieldwork, a few children regularly did not participate. She decided to thoroughly study the discourse of one of the groups to explore what was preventing some children from participating in the group discussions. The topic she chose to teach was the Bible story dealing with the creation of the world.

After reading the transcript of the discourse of one of the encounters, Michal realized that while she was engaged in a continuous discussion with one of the children,

two other children were not participating. Retrospectively, she defined this as a problem related to her self-regulation, as she allowed herself to act in an automatic manner without reflecting upon what was happening during the encounter itself. Analysis of the transcript revealed a further problem: Michal noticed that she tended to be dominant in defining concepts, rather than allowing for discussion among the children as the basis for deepening their understanding of concepts such as formlessness in the creation story. Despite these initial insights, the group dynamics did not change, and Michal sought counseling from the author of this paper who taught the Classroom Management seminar. Counseling was based on Michal's and the lecturer's joint observation of the video of a group encounter guided by Michal. Figure 5 is a still from this video, which helped Michal come up with possible factors that prevented the children's participation. Two main issues arose while viewing the video – identifying and defining them led to the action plan. One was Michal's tendency to control the situation and discourse by holding the book close to her chest, preventing the children from actively exploring it, and the other was the distance between her and the children and among the children due to the arrangement of the tables: Five 3- to 4-year-olds and the student sat around two tables. The reason for placing two tables between Michal and the children was not clear at that point in time. However, it was obvious that the overall seating arrangement arranged by Michal did not encourage the children's participation.

The main goal of the action plan was to catalyze the participation of all the children in the discourse. To attain this goal, Michal sought to create more intimacy in the group by removing one table and sitting around the other. She also wrote that she needed to be more attentive to the children during the discourse in order to identify the children's leads that had the potential to raise and maintain discussion among them. She also thought she might need to meet the quiet children individually before the group encounter, and prepare them for the group work, which might enable these children to feel more comfortable participating. She wanted to find additional ways to encourage the children's participation without putting pressure on them. Michal noted that her action plan reflected a proactive approach based on ecological thinking as well as self-regulation throughout the discourse.

Figure 5. Small Group Setting as a Basis of Action Research (May 13, 2013)
Photo: Michal Solomon

Michal proceeded to implement the action plan. Part of that was having an individual discussion with the girl who did not participate just before the group session, which was planned around the subject of how the children spent the weekend with their families. In addition, Michal asked the girl to invite the other children to the group encounter, thereby empowering her. As a result, the girl felt confident; she not only participated, she took the lead in the discussion (about two weeks after institution of the action plan). Michal also stepped back in this encounter and enabled the group discourse among the children to unfold for about 14 minutes without participating verbally in the discussion. Michal also noticed in real time that one of the girls did not share her experiences; in a pleasant voice, she invited the girl to share her weekend experiences with the group, which the girl eventually did. Thus, Michal not only planned the group encounter in a way that invited discourse among the children, she also acted in real time, during the session, to encourage the quiet children to fully participate. Michal was thrilled with the change she wrought, and wrote in her journal, "I could not foresee in any way, and it is unbelievable, how one small action – getting rid of a table and sitting closer around one table – can so significantly impact the dynamics of the group and the children's participation" (March 25, 2013). As evident in Figure 6 below, another major change in the seating arrangement was the location of the book in the center of the table, rather than being held in her hands as in Figure 5. This way of arranging the seating served to invite the active exploration of the book; and indeed, the children jumped in and explored. Michal wrote that after observing the video of the encounter shown in Figure 6, she understood that enabling the children to touch the book not only increased their participation, but also allowed her to adapt herself to which parts of the text drew the children's attention and how they were interested in exploring them. "I realized that 'how' I do things in the group – such as how I present materials and how I organize things – is no less important than 'which' subjects I choose to present in the small group session."

Figure 6. Active Exploration of the Book Following the Action Plan (June 6, 2013)
Photo: Michal Solomon

As reported by Michal, implementation of the action research brought about a change in her perception of the division of power between the teacher and the pupils, no matter what their age.

> My initial worldview was that I was the supplier of knowledge and my job was to teach. Following this research, I now understand that I was wrong. And that learning is enhanced when the children are not passive, but rather emerges from thinking and doing, when the child is active. Learning is a process in which the child contributes to its success as much as the teacher. [Michal is referencing Vygotsky (1978) when she writes that fulfilling the potential of learning and development depends on the existence of full, reciprocal relations/interactions within a group.] Following the action research, I modified the extent of my control of the group discourse and allowed the children to take the lead and set the pace of discussion [when to stop and discuss and when to continue], and to be

> involved in the discussion of the subject as much or even more as I am involved…what is needed is for me to be aware and balance my control and the children's control. Thus, change was possible only when I was ready to take one step back and allow for children's participation (seminar paper submitted September 1, 2013).

The action research was, as expected, action-oriented and included changing the seating, meeting individually with the children, and allowing for their participation both by placing the book in the middle of the table and abstaining from verbal feedback. Genuine reflections throughout teaching helped her fully grasp the concepts and their powerful impact on practice and people's lives. In the paper she submitted, Michal wrote that she was aware that the action research performed by her as a third-year student was only the beginning of her professional path and that real challenges are to be expected as she becomes a teacher in the real world. An informal discussion with Michal in July 2017 revealed that, as a first and second grade teacher, she feels fully committed to performing SGW. When teaching first graders and hence working with an assistant, she reported that she regularly performs SGW in her class. However, when teaching second graders, she did not succeed in implementing SGW as she was teaching 32 children by herself. She noted that she regularly asked her school principal for additional help that would allow her to implement SGW in her second-grade class.

Case 2. Integrating SGW as a permanent component of preschool work[1]

The crisis that led Noa, a third-year student teacher, into conducting action research about the implementation of small group work stemmed from the difficulty she encountered in systematically and thoroughly engaging in small group work with more than one small group in her placement. Like the other student teachers at the Levinsky College of Education, Noa was responsible during her first two years of study for the guidance and documentation of learning and social processes of one small group at a time. Third-year studies brought greater responsibility – guiding two to three small groups (including half the preschool children so that all the children in their preschool placement would be covered by the two student teachers). Furthermore, as the preschool director in her placement had been ill, Noa occasionally served as a substitute teacher there. The experience of being the leader of the preschool who did not fulfill her duties as a "good" teacher frustrated her and motivated her to perform action research aimed at removing the stumbling blocks that were preventing the effective implementation of SGW.

In the process of examining her own and the preschool's implementation of small group work, Noa discovered that her field mentor did not routinely perform systematic small group work. She learned that although the children were divided into heterogeneous groups, the teacher would typically create small groups in an ad hoc manner so that the group composition had nothing to do with the initial declared division into groups. Furthermore, small group work was not performed at a prescheduled, fixed time and place. No effort to bring about sustained learning had been done as participants, topics, time, and place would vary. Noa's description of how SGW was implemented in her field placement was very similar to what had been reported by the teachers participating in the first study.

One of the insights reached by Noa related to how she and her field mentors led small groups, and the need to differentiate between teaching small groups and teaching plenary sessions. This insight informed the analysis of her own practice and ultimately the plan of action she delineated at the end of the first cycle of inquiry. The need to differentiate between

small-group and plenary teaching led to the following features of her plan of action (developed in late February 2013):

1. Establishing group work as a permanent routine involving all children in the preschool. Thus, Noa assumed a leadership role in planning group work for all the children, not only for the three groups she was assigned as a student teacher. This goal led to the need to set an agreed upon timetable and agenda for the fieldwork day with her fellow student teacher, which would include defining the time and place for the operation of six groups – and this received the field mentor's wholehearted consent.
2. Establishing and maintaining behavior rules to guide the group encounter and discourse; these rules will differ from those governing plenary sessions. One of the rules, besides talking in turn and not interrupting a peer, was to refrain from raising one's hand to be allowed to talk in the group, thereby developing the ability to integrate into the flow of the discourse. These rules entail giving up power as a group leader and encouraging collaboration among the children.
3. Choices about the subject and activity plans must be based on inquiry, discourse, and cooperation among the children.

A week after establishing the plan, Noa decided with her fellow student to rely on the mentor's initial division into the six small groups established at the beginning of the school year, but not systematically implemented. They formed a plan that included coordinated hours and space for the six groups during the fieldwork day, taking into consideration the children's daily activities, and they obtained the field mentor's approval.

Noa next considered how to cope with the children's difficulty in complying with the new rules – convening the group on a regular basis at a set time. Initially, she would address individual members and invite them to join, but some resisted. Children tended to oppose entry into groups as they were unwilling to discontinue their free-play activities. As a result, Noa started to announce at the beginning of each fieldwork day the time and subjects to be learned in each group. She further decided to delegate authority, give up power, and establish the routine by appointing a different child each week to take charge of preparing the setting of the group work and gathering the children for the group encounter. She decided with the children the order of those in charge.

Another crucial aspect of SGW deals with the creation of learning conditions for all the participants. Noa was well aware of this as she related that she wanted to create conditions for inquiry and discourse among the children as opposed to drills or having them perform memory tasks by rote. She chose to discuss with the children the biblical story of creation. Noa would teach them the creation verse relevant to each day and encouraged them to make drawings that represented how they understood and imagined each day. As the original biblical verses do not include any illustrations, children had to rely solely on their imagination to draw the contents of the creation each day. At the beginning, Noa asked all the children in the group to draw a picture of "formlessness" following a short discussion that defined its use in the Bible. The results can be seen in Figures 7 (by Noga) and 8 (by Eden) – these are quite similar depictions of the first day of creation, showing light as the first step from formlessness to order.

Figure 7. Formlessness (by Noga)

Figure 8. Formlessness (by Eden)

The similarity in the children's drawings, revealing the absence of a deep understanding of the subject and a lack of creativity, troubled Noa and motivated her to formulate a different plan of action for the group – implemented a few weeks later. This plan meant to encourage the children to discuss among themselves the meaning of the verses Noa read, and to stimulate their imagination in an attempt to represent the content in a creative way that uniquely expressed their conceptualization. To that end, following repeated, joint read-alouds of the verses, Noa asked the children to divide the days of creation among themselves, each child to depict one day. She deliberately wanted the children to decide how to divide the days of creation among themselves. In addition, she brought to the encounter a variety of art materials – paper, old newspapers, and magazine pages that could be included in the children's creative work, as well as colors, clay, glue, and scissors.

The discourse among the children initially focused on matters of procedure – discourse that uncovered "problems" formulated by the children themselves. For example, they realized that the group had six children, but that there were seven days of creation – so who would do the seventh day? Noa encouraged them to find solutions for themselves. The children managed to divide the days of creation among themselves, and after Noa refused to draw the seventh day herself, they approached Ofek, a boy who did not initially belong to their group and asked him to join them.

Upon reaching agreement on procedural matters, the children began to perform the artwork related to their biblical interpretation of the creation. The artwork performed by the children following the discussions in the small

Figure 9. The First Day (by Noga)

Figure 10. The Sixth Day (by Eden)

group reflected their creativity: Each made use of different materials, colors and positioning on the paper. Figures 9 and 10 show Noga's and Eden's drawings of the first and sixth day of creation…in contrast with the similarity of the girls' initial drawings (Figures 7 and 8).
In addition, the casual discussions among the children throughout their artwork led to one of the most interesting and fruitful parts of the entire project. The discussion about the fourth day of creation – the day in which the stars were said to have been created – led the children guided by Noa to an extended scientific inquiry into stars.

Noa's analysis of the processes involved in her classroom management seminar led to an understanding of how competencies in Moral Classroom Management (MCM) play a role in the successful inclusion of small group work in the overall leadership and management of a classroom.

> In the daily operation of classrooms, one can expect difficulties and clashes among members of the staff [proactive thinking] regarding both the importance of learning in small groups and the time and space devoted to this activity [ecological thinking]. In particular, clashes can be expected when small group learning is a new initiative that casts doubt upon the more traditional modes of teaching and impacts the division of labor among staff members [ecological and proactive thinking]. As a result, assistants are likely to oppose small group work. Successful coping with difficulties is often guided by proactive thinking and the formation of good relations with the staff. The teacher should aspire to create sustained, cooperative relationships [relationships] with her staff and to think in advance of how the small group work might interfere with the regular activity of each particular classroom. She should operate ecologically and plan activities

for the children not engaged in group learning at any given moment in the different classroom centers. In addition, the teacher should guide the small groups in the space shared by all children [not in an isolated room – ecological thinking] so she can see all the other children [leadership] and they are aware of her presence. (Components of the MCM model were added in square brackets by the author.)

Noa also perceives group work as a developing and learning enterprise, thus inadvertently citing the self-regulation involved in the process of classroom management.

Throughout the group work, processes of change and improvement are needed. This is because the group, like any person or organization, needs to always learn, grow, and improve.

It is interesting to note that Michal arrived at far-reaching conclusions related to the nature of productive cooperative group work and its relationship to her own classroom management competencies "bottom-up" – from the analysis of discourse processes in one group. Noa on the other hand, felt competent about her guidance of the small group discourse and started her action research by looking at the preschool "top down." Eventually, she analyzed the quality of the small group work, but that was not her starting point. Thus, it is vital to notice the importance of action research planned and implemented in each setting following observation, analysis, and planning so that the plan fits the people and the environments of each site.

Discussion

This paper was inspired by a belief in the importance of cooperative small group work, in general, and in early childhood education, in particular, combined with the evidence-based impression that this strategy is not implemented in preschools in Israel in ways that are helpful to children's learning and well-being. The findings presented here help cast light on the processes involved in implementing SGW and are informative as to what can and must be done in teacher preparation and in-service training to reduce the gap between theory and practice.

The finding of the significant difference between the positive attitude toward group work, but the lack of belief in its feasibility, indicates that in teacher education at both the preparation and post-graduate (in-service training) levels, we must find ways to convince teachers of the feasibility of this approach.

As demonstrated by the change in attitudes of the teachers in the first part of the findings section, it seems possible to persuade teachers to implement SGW. To convince teachers to systematically perform SGW with fruitful discourse among the children, the training of teachers must encompass both theoretical and empirical knowledge as well as an active inquiry into the practice of group work itself.

The commitment of teachers to the children's learning and well-being and a willingness to be reflective and self-critical about their practice are the engine that drives the perpetual search for ways to improve practice in educational settings (Tal, 2016). The findings of this study show that effective implementation takes intentional effort. First, it needs to be explored and practiced at the preparation level, not only "taught," because it takes both knowledge and competency to implement. Students need to repeatedly experience SGW and learn how to cope with difficulties encountered in its implementation. Student teachers and teachers need to develop "perceived self-efficacy" about their ability to implement SGW. "Perceived self-efficacy" is defined as "people's beliefs about their capabilities to produce designated levels of performance that exercise influence over events that affect their lives" (Bandura 1994). Bandura (1994) indeed proposed that a principal source of perceived self-efficacy is the experience of

mastery – of successfully dealing with challenges.

Noa's action research, supported by the data obtained from analysis of the responses to the open questions of teachers participating in the first study, demonstrates that being proficient in guiding discourse in small groups is not enough. In order to perform SGW effectively, one also needs to look at and understand the class from a classroom management perspective, i.e., from a bird's eye view. The implementation of SGW must be thoroughly planned and be the product of coordination and collaboration with staff. Joint agreement of the time, place, and division of labor among the staff is needed. There also needs to be a deliberate way to divide the class in groups, and children must learn rituals of small group learning and participation that are different from plenary session learning, as indicated by Noa in her research. Ultimately, the subjects to be taught must be carefully chosen.

The two action-research studies emphasize the need to both establish real discourse in the group by allowing and encouraging children's participation, and ensuring classroom management that enables the implementation of SGW. The findings of the first study corroborated by Michal's action research indicate that the teachers' initial perceptions often tend to be positivist and that it takes intentional effort and willingness to give up power in order to allow a discourse among the children to unfold.

The two action-research studies presented in the second part of the results section show that the issues and difficulties to be dealt with in order to institute SGW are likely to be different for various classes and teachers. Therefore, an action-research approach to practice both at preparation and post-graduate level is needed. Teachers always need to be reflective and self-critical about implementing SGW as well as other aspects of their practice. The inquisitive approach needs to be led by values, by the commitment to social justice. Action research as social justice is founded upon an underlying, inclusive epistemology reflected in collaborative practices and actions (Griffiths, 2009, p. 95). Action research for social justice defines social justice issues as outcomes, such as recognition and/or the redistribution of voice or power. Implementation of the MCM model, in general, and particularly for the sake of implementing SGW, calls for a combination of action-research approaches – both as and for social justice – as the goal of MCM consists of creating well-being and learning conditions for all those involved, children and adults alike (Tal, 2016). Furthermore, MCM assumes diversity among children and staff along various dimensions, and the social-moral plan – as a central component of the model – prescribes inclusivity in whatever educational practices are involved. Thus, the effectiveness of interventions based on MCM is measured by the degree of equity in the distribution of resources – the most expensive of which, in the context of early childhood education, is the adult's time and attention. Time and attention are devoted by educators for the sake of social-emotional empowerment and to enhance learning conditions for all the children. SGW was shown, when implemented faithfully, to attain these goals.

To sum up, the good news provided by the findings of this research is that implementation of SGW is possible. The bad news is that it can never be perceived in either preschool practice or teacher preparation as something that can be performed en masse, assembly-line style. SGW is a value-laden enterprise, and moreover teachers need to gradually develop proficiency in guiding groups. Guiding small groups in ways that are conducive to fulfillment of their goals – meaningful learning and the well-being of all the children in a class – necessitates thoughtful planning, the leading of dialogue in the group, and classroom management competencies, some

of which are relatively fixed after their establishment (such as routines and timetable) and others that take continual thoughtful attention and effort. Therefore, teacher education needs to include at all levels values and theory-guided practice. Adopting an action-research, ideological, and practical approach may be helpful in this regard.

Note

1. Case 2 was also presented in Tal, 2016, pp. 71-85.

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