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Student Perceptions in Temporary and Cohort Groups

David Miedema

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Abstract

This research study described student perceptions towards learning and participation for temporary groups and cohort groups. The participants were 101 eighth grade social studies students. For five weeks, students were assigned to regularly work in groups of three to four students. Two classes worked in temporary groups, and two other classes worked in cohort groups. Students completed a pretest-posttest survey and a group work survey after each learning activity to describe group participation and learning. Six students participated in a semi-structured interview to elaborate on their experiences after the study. Results showed that students in cohort groups had a more positive attitude towards group learning and greater development of trust and community. The study showed the importance of using strategically formed groups in cooperative learning.

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Action Research Report Submitted in Partial Fulfillment Of the Requirements for the Degree of Master of Education

Student Perceptions in Temporary and Cohort Groups

by

David Miedema

B.A. Dordt College, 2012

Action Research Report
Submitted in Partial Fulfillment
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Department of Education
Dordt University
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Abstract

This research study described student perceptions towards learning and participation for temporary groups and cohort groups. The participants were 101 eighth grade social studies students. For five weeks, students were assigned to regularly work in groups of three to four students. Two classes worked in temporary groups, and two other classes worked in cohort groups. Students completed a pretest-posttest survey and a group work survey after each learning activity to describe group participation and learning. Six students participated in a semi-structured interview to elaborate on their experiences after the study. Results showed that students in cohort groups had a more positive attitude towards group learning and greater development of trust and community. The study showed the importance of using strategically formed groups in cooperative learning.

Keywords: cooperative learning, community, cohort groups, student groups

Social studies education, particularly at the middle school level, is under some pressure. For example, less than one third of eighth graders earned a score of proficient or better on the National Assessment of Education report (Kent et al., 2018). Similarly, Wanzek et al (2014) noted that only 12% of high school seniors scored on a proficient level on this assessment, which is unchanged from student scores in 1994. Such scores have revealed a need for a shift in pedagogical practice for social studies educators. Kent et al. (2018) found that social studies teachers cited textbook-based and lecture-based as their preferred instructional method with a focus on passive student learning and rote memorization of content. Adeyami (2008) similarly identified this trend finding that conventional methods of instruction, such as lecturing, do not help students retain knowledge nor stimulate student inquiry and innovation. With outdated practice and underwhelming student achievement scores in social studies education, new teaching practices must be embraced.

As a result, there is a focused effort to transform social studies education away from rote memorization and traditional methods of instruction towards an inquiry-based education that fosters higher level critical thinking skills. This shift is evidenced by the standards developed by the National Council of Social Studies (2013) in their C3 Framework. This framework seeks to prepare students for college, career, and civic life by enhancing the rigor of social studies education through inquiry. Specifically, the framework emphasizes student learning "to know, analyze, explain, and argue about interdisciplinary challenges in our social world" (National Council of Social Studies, 2013, p. 6). These skills allow students to solve problems more effectively and to apply personal meaning to their learning in the world around them.

Compared to traditional instruction, such as lecture-based and textbook-based teaching, student-centered and constructivist learning activities produce greater student outcomes and

achievement. There are many instructional practices social studies educators can use besides lecture and textbook-based teaching. One such practice is cooperative learning. Adeyami's study (2008) found that student groups who utilized a cooperative learning and problem-solving strategy scored higher than the lecture-based student group. Hoorani's (2014) study found similar results, as students scored 9% higher with cooperative learning compared to traditional instruction. Cooperative learning also allows students to build relationships, to raise self-esteem, and to increase their levels of engagement and ownership in learning. This is described by Lerma (2007) as creating a homefield advantage for students to achieve greater success.

Cooperative learning, however, is not the same as simply allowing students to work in pairs or small groups. According to Igel and Urquhart (2012), cooperative learning has three key principles for teachers to employ: teach group processing and interpersonal skills, establish cooperative goal structures within groups, and provide mechanisms for individual accountability. Structured cooperative learning is much more effective than unstructured student group work. Gillies (2004) discovered in his study that structured cooperative learning has higher rates of cooperative behavior and fewer disruptive behaviors. For examples, students reported higher scores of being free to talk (4.31 to 4.06), listening to each other (4.35 to 3.67) and opportunities to share ideas (4.23 to 3.67). Simply allowing students to work with other students is not the same as the structured design and implementation of cooperative learning.

One mode of structured cooperative learning is the use of team-based learning. Team-based learning contains four primary elements according to Michaelsen and Sweet (2011) including permanent teams that are strategically formed, readiness assurance, application activities that promote critical thinking and team development, and peer evaluation. Team-based learning is predicated on the value of group cohesion in the learning process. Group cohesion is

the idea of togetherness and community within a group (Steen et al., 2014). This idea of group

cohesion can be found in cohort groups, which are groups of students that move forward in their

learning together instead of moving forward in random groupings (Greenlee & Karanxha, 2010).

It is the idea of cohort groups that foster group cohesion that is the primary interest of

this study, particularly their use in a middle school social studies classroom. Students at the

middle school level experience a significant amount of social and academic development, which

cooperative learning helps support. Many schools today are adopting the cohort approach due to

COVID-19 regulations and protocols to help keep students in school. The cohort model,

however, could lead to significant increases in student perceptions and levels of participation in

cooperative learning beyond the current pandemic situation. Therefore, more research must be

done to describe the effects of cooperative learning in cohort groups at the middle school level.

Purpose of the Study

The purpose of this study is to describe student perceptions towards learning and group

participation regarding the use of cohort groups versus temporary groups in social studies.

Research Questions

1. Does student participation in group work increase or decrease using cohort groups versus

   temporary groups?

2. Do students perceive higher or lower levels of learning and participation in cohort groups or

   temporary groups?

Definition of Terms

For the purpose of this study, the following definitions will be used. The provided definitions are

the researcher's work unless noted otherwise.

Cohort Groups are student groups that are permanent and remain together over time.

Cooperative Learning is "the instructional practice of placing students into small groups or teams to work together towards a common goal" (Lerma, 2007, p.14).

Group Cohesion is the level of togetherness and community within a group ((Steen et al., 2014).

C3 Framework is a set of standards developed by the National Council of Social Studies (2013) emphasizing the importance of critical thinking and collaboration for college, career, and civic life readiness.

Team-Based Learning is "a structured form of small-group learning that emphasizes student preparation out of class and application of knowledge in class" (Brame, 2020).

Temporary Groups are student groups that rotate and do not remain permanent over time.

Literature Review

In 2010, the National Council for Social Studies (NCSS) published a new initiative and standards framework known as the C3 Framework. Griffin (2013) noted that many states have standards that follow "an outdated and unimaginative model" (p. 13) of listing and memorizing dates, people, and events in history. Consequently, the NCSS (2013) created a framework focused on critical thinking skills beneficial towards civic participation, college preparation, and career readiness. Along with the NCSS, other organizations such as the Interstate New Teachers Assessment and Support Consortium (INTASC), have adopted a framework that emphasis active construction of knowledge and understanding historical issues and topics from multiple perspectives (Bolinger & Warren, 2007).

Adeyemi (2008) advocated for a social studies curriculum that embeds cooperative learning instead of a more traditional curriculum centered on lecture and textbook-based instruction. Adeyemi (2008) conducted a study in which students that engaged in cooperative learning scored an 11.891 compared to only 6.901 for students engaged in traditional lecture and

textbook-based learning on the Multiple Classification Analysis of Social Studies Achievement

Test. Cooperative learning also produced equitable achievement scores between boys and girls,

which was not the case when students engaged in both traditional and problem-solving learning

activities (Adeyemi, 2008). Hoorani (2014) similarly discovered an increase in student

achievement scores as well as greater ability to understand at the higher levels of Bloom's

taxonomy in his research. After implementing cooperative learning, Hoorani (2014) noted that

cooperative learning created a learning environment that "helped in maximizing student

learning" (p. 153). Before the study, students scored under 50%, but after implementing both

cooperative learning and reflection surveys, student achievement scores rose to over 80%

(Hoorani, 2014). Using cooperative learning strategies is an effective pedagogical tool for

teaching students in today's classroom.

Cooperative learning also engages the brain more fully than traditional instruction, which

results in both stronger achievement scores and improved student perceptions towards learning

(Willis, 2007). Erdogan's study (2019) confirmed this by noting that cooperative learning was

used to improve students' reflective and critical thinking scores using journaling, group

discussions, and reflective dialogue. Using the Cornell Critical Thinking Test, Level X, students

engaged in cooperative learning activities improved their score from 27.36 in the pretest to 33.97

in the posttest (Erdogan, 2019). The control group in Erdogan's study (2019) only improved their

score from 27.32 to 28.41 in their pretest-posttest. Other research has found that team-based

learning increased middle school students' ability to elaborate and recall historical content

compared to traditional lecture-based forms of instruction (Roberts et al., 2014). Using the ASK

Content Knowledge Subtest, fewer students scored below the 25th percentile from 10% to 8.5%.

(Roberts et al., 2014). With cooperative learning, students can go both deeper and wider with their understanding of material.

Cooperative and team-based learning can improve student achievement, but it also can develop stronger feelings of community and belonging. Middle school especially is a time of significant growth, not just academically but socially as well. Akos et al. (2007) identified that peer interactions are crucial in both cognitive growth and identity development for middle schoolers. Early adolescent students naturally gravitate towards peers and groups based on common interests, orientations, and behaviors to gain acceptance and feel a strong sense of belonging (Akos et al., 2007). Therefore, it is important to create strong group trust and interdependence in cooperative learning activities. This concept of group trust and interdependence, known as group cohesion, has been well-researched and received much attention (Greer, 2012). Steen et al. (2014) explain that group cohesion takes time, and student bonds grow during moments of struggle and difficulty. However, when strong group cohesion is developed, cooperative learning can help provide the belonging and inclusion middle schoolers crave, as identified in a meta-analysis consisting of forty-six studies that showed positive effects on team performance (Greer, 2012). Another study by Greenlee and Karanxha (2010) found trust and cohesion to be crucial components towards the success of cooperative learning at the middle school. The study found that "true collaboration, with a focus on common goals and sincere desire to benefit all members, promotes trust among group members" (Greenlee & Karanxha, 2010, p. 360).

Effective cooperative learning, however, does not happen incidentally. Instead, it occurs through careful design and purposeful implementation. This is especially true today with students who are simultaneously more digitally engaged yet less socially connected than ever

before. Igel and Urquhart (2012) identified three main principles of effective cooperative

learning for students in Generation Z: teaching group processing and interpersonal skills,

establishing cooperative goal structures with groups, and providing mechanisms for individual

accountability. Cooperative learning at the middle school level must consist of intentional

student groupings, clearly established and taught expectations for group dynamics, and

opportunities to practice student-to-student explanation and critiquing (both providing and

receiving). When group learning is structured, there are fewer instances of interrupting or off-

task behavior compared to structured cooperative learning. Student perceptions towards learning

also improve with structured compared to unstructured group work (Gillies, 2004). It is

important to carefully consider how cooperative learning can be best designed and implemented

in the middle school classroom.

One of many considerations for cooperative learning is how to group students. Lafont et

al. (2017) conducted a study of cooperative learning and peer-assisted learning's effects on

student outcomes in physical education. The study found that clear training is needed for

students to understand their roles in peer-assisted learning, and that girls favored cooperative

learning when groups changed every three weeks (Lafont et al., 2017). Wanzek and associates'

study (2014) found that creating permanent, heterogenous groups increased student achievement

scores and critical thinking skills identified by the National Council for Social Studies.

Students will gravitate towards others who share similar backgrounds and academic

abilities that provide a safer environment for academic growth and social development (Akos et

al., 2007). However, although students may feel more comfortable with peers that share similar

interests and backgrounds, creating diverse student groups is important as well, as evidenced by

the INTASC Standards' focus on using different viewpoints in acquiring, comprehending, and

discussing socials studies content (Bolinger & Warren, 2007). Through collaborative problem-solving, peer feedback, and group consensus, these diverse groups experienced significant increases in content knowledge (Wanzek et al, 2014). Students working in these groups outscored the control group by 1.92 raw score points on the Assessment of Social Studies Knowledge test with a growth of 6.83 items correct from pretest to posttest for high-performing students (Wanzek et al, 2014). Similarly, students in the medium-performing experimental group outscored the control group by 3.88 raw score items (Wanzek, et al, 2014). Dowdy and Dore (2017) discovered that diverse groups also foster students' ability to overcome challenges and make positive social change. In a project titled "Be the Change," they grouped students from two middle schools with starkly different socioeconomic student populations together to share perspectives, identify community issues, and work to address social inequalities. After presenting projects to the community at a local library, Dowdy and Dore 2017) described the project experience as creating "fertile ground" (p. 71) to empower students and classrooms.

One approach towards cooperative learning is the idea of team-based learning Four key elements are identified in team-based learning: permanent and strategically formed teams, readiness assurance through formative assessment checks, application of material with critical thinking, and peer evaluation (Michaelsen & Sweet, 2011). Using this approach, students also perceive greater learning outcomes. On a junior high version of the Motivated Strategies for Learning Questionnaire, students' responses of "very true of me" increased for all Likert-scale items focused on student confidence and ability to extensively recall content (Roberts et al., 2014).

Lerma's study (2007) had similar findings. The study demonstrated how cooperative study groups that met regularly in and out of class in groups of three or four led to a boost in

student confidence, retention, and perceptions towards his math classes. He found that students

felt more closely bonded together in a learning community, similar to a sports team getting a

boost as a result of the "homefield advantage." This led to more consistent scores for the

experimental group, which only had a standard deviation of 2.85 compared to the control group's

standard deviation of 6.10 on his algebra test (Lerma, 2007). The increased consistency was

"attributed to the fact these students spent more time working problems and studying together,"

(Lerma, 2007, p. 18). This was supported by student comments that reported improvements in

study skills, confidence in asking questions, and feelings of support and encouragement in

staying focused from group members (Lerma, 2007).

Like team-based learning, "home groups" or cohort groups allow students to remain in

the same group for an extended period. Stahler (1997) implemented "home groups" for her

courses. The study used student data to create diverse groups and asked them to meet formally

(test review, etc.) and informally (catching up on absentee work, supporting each other's

extracurricular activities, etc.). Students in her classes reported the home groups being one of

their main positive takeaways and consequently experienced a more caring, patient, and

interdependent learning environment (Stahler, 1997).

These studies point towards the effectiveness of permanent groups at the collegiate level,

but there is less research on its effectiveness for younger students. Greenlee and Karanxha's

more recent study (2010) did find increased student perceptions towards group cohesion and

trust for students in cohort groups compared to non-cohort groups. Students in the cohort groups

gave their level of satisfaction a score of 4.78 compared to 2.98 for the non-cohort group. 76% of

students in the cohort group gave a higher score towards trust than their non-cohort group peers

as well (Greenlee & Karanxha, 2010).

Cooperative learning, team-based learning, and cohort groups clearly benefit the academic and social development of students, particularly at the young adolescent age. Middle school students desire community and identity, both of which can be positively impacted by cooperative learning. This learning, however, must be structured and implemented purposefully. Cooperative learning that contains permanent groupings, diversity within the student group, structured and practice group dynamics and learning activities, and the opportunity for students to share responsibility has shown benefits. Cohort groups may be an effective approach within cooperative learning to increase student achievement and increase student participation and perception by improving group cohesion and interdependence.

Methodology

Participants

The participants in this action research experiment consisted of 101 eighth grade students ages thirteen or fourteen from a Christian school in the Midwest. The study included fifty-one female and fifty male students. The control group is made up of forty-nine students, and the experimental group is made up of the fifty-two students. Student participants are from middle or upper middle class socio-economic backgrounds. The student population is predominantly white, with less than 6% being non-white.

Materials

The study used a pretest-posttest Google Form survey created by the researcher. Questions focused on group dynamics, communication, problem solving, decision-making, trust, and satisfaction using a four-point Likert scale (see Appendix A). The survey was piloted with a group of seventh grade students. These students stated that the survey was clear and effective. The researcher also created a short Google Form survey consisting of four questions on a four-

point Likert scale that students completed weekly (see Appendix B). Questions focused on

student perceptions towards student engagement, participation, and productivity during the group

work. The researcher also created a semi-structured interview (see Appendix C) that was

conducted at the conclusion of the study.

Design

This quasi-experimental design measured student perceptions towards learning,

engagement, and participation in the eighth-grade social studies classroom. A cluster sampling

method was used with two classes using temporary groups and the other two classes using cohort

groups. Temporary groups were created using an online random simulator, and cohort groups

were designed purposefully to create diversity in gender and ability. Each class completed the

same group activities with the same group expectations. In both temporary and cohort group

classrooms, student group size was three to four students.

The study collected data using a pretest-posttest survey using Likert scale questions on a

four-point scale. Each student completed the survey. Throughout the study, each student

completed a short Likert scale survey identifying their perceptions and attitudes towards the

engagement, participation, and productivity of the group work. At the conclusion of the study,

six students were purposefully chosen to complete a semi-structured interview explaining their

perceptions towards the group work and whether their attitudes changed throughout the study.

The interview lasted around fifteen minutes. Data was collected and compared between the

pretest-posttest survey across the four classes and between the classes using temporary and

cohort groups. Interview responses were used to provide further detail and explanation towards

students' experiences in both temporary and cohort groups.

Procedure

      Students in four eighth grade social studies classes participated in this study. Two of these classes take place before lunch in the morning, and the other two are after lunch in the afternoon. Two classes, one before and one after lunch, were chosen to complete group work using a cohort model for student group selection in which student groups are permanent. The other two classes used temporary student groups that consistently changed using an online random simulator. Students in all classes were given expectations for group work and survey completion. Students in classes using the cohort group model were given their cohort groups, and students using the temporary group model were told that an online random simulator would be used to create groups.

      All four classes participated in the same group activities, and students completed short weekly surveys identifying their perceptions towards the engagement, participation, and productivity of their group. The study lasted for five weeks. This data was recorded to determine what, if any, changes in student perceptions and attitudes took place throughout the study. Group work took place multiple times per week.

      At the conclusion of the study, six students were purposefully chosen to conduct a semi-structured interview. Each of the four classes had at least one student chosen for the interview. Students were asked to explain their perceptions towards and personal experiences with the group work. These interviews were recorded and analyzed carefully with the data collected from the pretest-posttest and weekly surveys to provide a deeper and richer understanding of student perceptions and attitudes towards learning, engagement, and participation in their groups. Data from the surveys and interviews were destroyed at the conclusion of the study to protect anonymity.

Results

The purpose of this study was to describe student perceptions towards learning and group participation in cohort groups and temporary groups in social studies. Data was collected by giving students a pretest-posttest survey consisting of eight statements. Also, students were given a group work survey after various group learning activities during the study. The survey addressed four statements. Students who were absent for certain activities did not complete the survey for that activity. To conclude, data was collected with a semi-structured interview after the completion of the study.

Pretest-Posttest Survey

Students completed a pretest-posttest survey on their perceptions towards group work. Statements were designed on a four-point Likert scale with response of 1 for a statement being "less true" and a response of 4 meaning "more true." Statements were organized into three main themes: general attitudes, trust and community, and multiple perspectives. Table 1 displays the statements and themes in the pretest-posttest survey.

Table 1

Pretest-Posttest Survey Questions on Group Work

Question Category	Survey Questions on Group Work
General Attitudes	I enjoy working in groups.
	Group work helps me learn.
Trust and Community	Having a strong relationship with my group members makes group work more effective.
	Keeping the same people in my group makes group work more effective.
	Getting to know the people who work in my group matters to me.
	The amount of trust I have in my group members influences how much I participate with my group.
Multiple Perspectives	Switching who is in my group makes group work more effective.
	Getting to hear different perspectives often in group work matters to me.

For each category, an ANOVA test was conducted to determine whether a statistically significant difference could be inferred between pretest and posttest survey responses. The p-value for each ANOVA test was calculated, and a value less than 0.05 determined whether a statistically significant difference could be concluded. Mean scores were also calculated to determine whether student perceptions increased or decreased between the pretest and posttest surveys.

Pretest-Posttest Survey for Temporary Groups

For classes with temporary groups, forty-eight students responded to the pretest and posttest survey. There were two statements that focused on general attitudes towards group learning, four statements centered on the idea of trust and community within group learning, and two statements for multiple perspectives in group learning. The mean score for each category was calculated on both the pretest and posttest survey. Figure 1 displays the mean scores for temporary groups for statements regarding general attitudes, trust and community, and multiple perspectives in group learning.

Figure 1

Pretest-Posttest Mean Scores for Temporary Groups

Pretest-Posttest Group Work Survey
Temporary Group Mean Scores
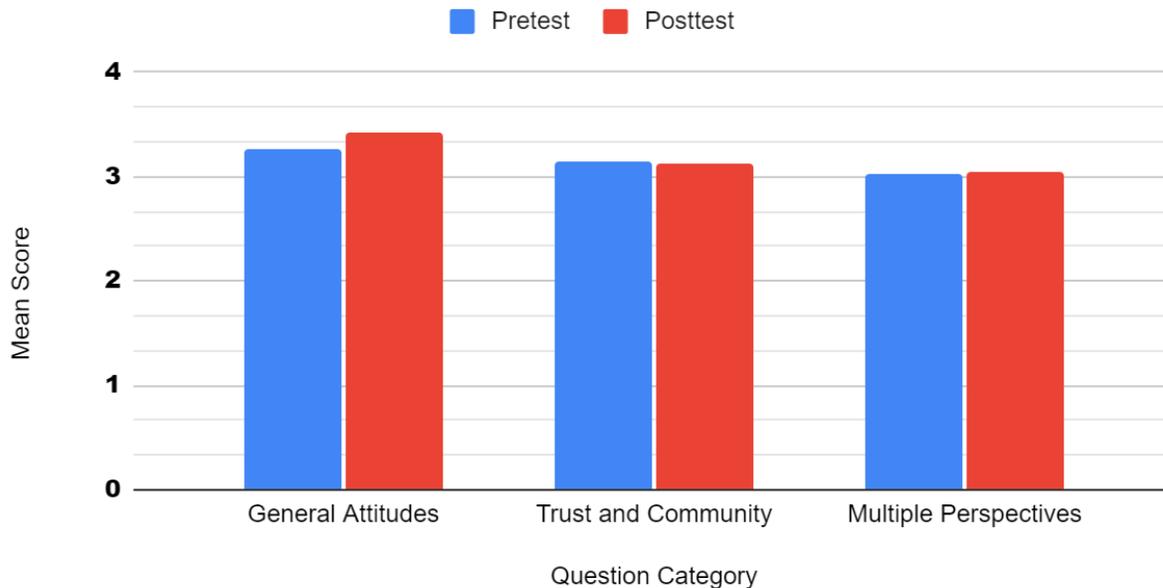
The mean score from the pretest survey statements on general attitudes was 3.26, and the

posttest mean score was 3.43. This results in a p-value of 0.2907. This shows that there was a

noticeable improvement in students' general attitudes towards group learning from the beginning

to the end of the study. However, the difference cannot be interpreted as statistically significant.

Regarding the category of trust and community, the pretest mean score was 3.15, and the

posttest mean score was 3.12. Student perceptions towards trust and community in temporary

groups slightly decreased from the start to the end of the study. The p-value for this ANOVA test

was 0.6956. As a result, there was no statistically significant difference between the pretest and

posttest mean scores.

For multiple perspectives in group learning, the pretest survey mean score was 3.02, and

the posttest mean score was 3.04. Only a slight increase in student perceptions towards the value

of multiple perspectives in group learning occurred. The p-value was 0.8824, and a statistically

significant difference did not exist between the pretest and posttest survey.

Pretest-Posttest Survey for Cohort Groups

In classes with cohort groups, fifty students responded to the pretest survey and fifty-two

students responded to the posttest survey. Figure 2 shows the mean score for the statement

categories on both the pretest and posttest survey for cohort groups.

Figure 2

Pretest-Posttest Mean Scores for Cohort Groups
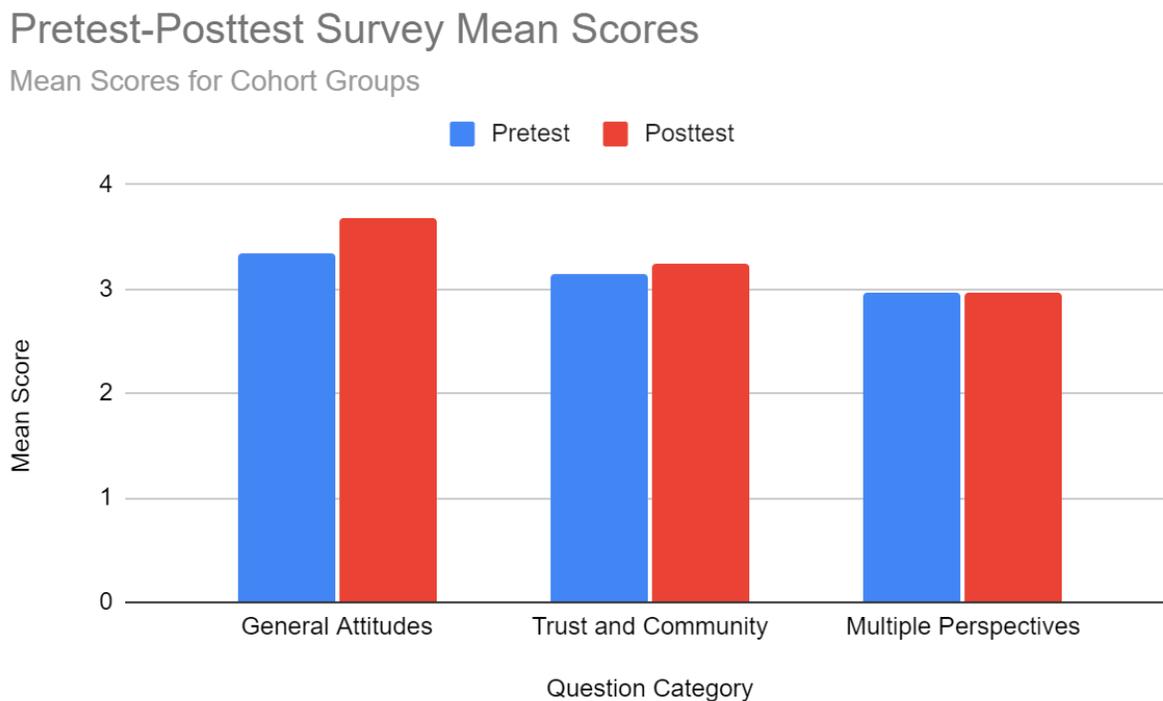
On statements regarding general attitudes, the pretest survey mean score was 3.35, and

the posttest mean score was 3.68 for students in cohort groups. This results in a p-value of

0.0135. Therefore, it can be concluded that the difference between the pretest and posttest survey

was statistically significant for students who worked in cohort groups, and the cohort groups

resulted in improved student attitudes and perceptions towards group learning.

Cohort group students had a mean score of 3.15 on the pretest survey. Their posttest mean score was 3.25, which showed an improved perception towards trust and community in student groups. The p-value for this test was 0.3811, which does not indicate a statistically significant difference.

Cohort group students had a mean score of 2.96 on the pretest survey and the same exact score on the posttest survey for the question category of multiple perspectives in group learning. With a p-value of 1, there was no statistical difference or change in student perceptions towards multiple perspectives in cohort groups.

Group Work Survey

Students engaged in various group learning activities throughout the study. After each activity, students completed a survey with four statements. This survey is shown in Appendix B. Students who were absent from certain activities did not complete the survey for that activity. There was a total of five hundred eight responses from students in temporary groups. The total for cohort groups was 549. The same survey was given for temporary and cohort groups. Statements were designed to describe student perceptions towards group participation and group productivity.

Students responded using a four-point Likert scale with a score of 1 representing "disagree" and a score of 4 meaning "agree." The mean scores were calculated for each statement for students in temporary and cohort groups, which is displayed in Figure 3.

Figure 3

Group Work Survey Mean Scores

Group Work Survey Mean Scores
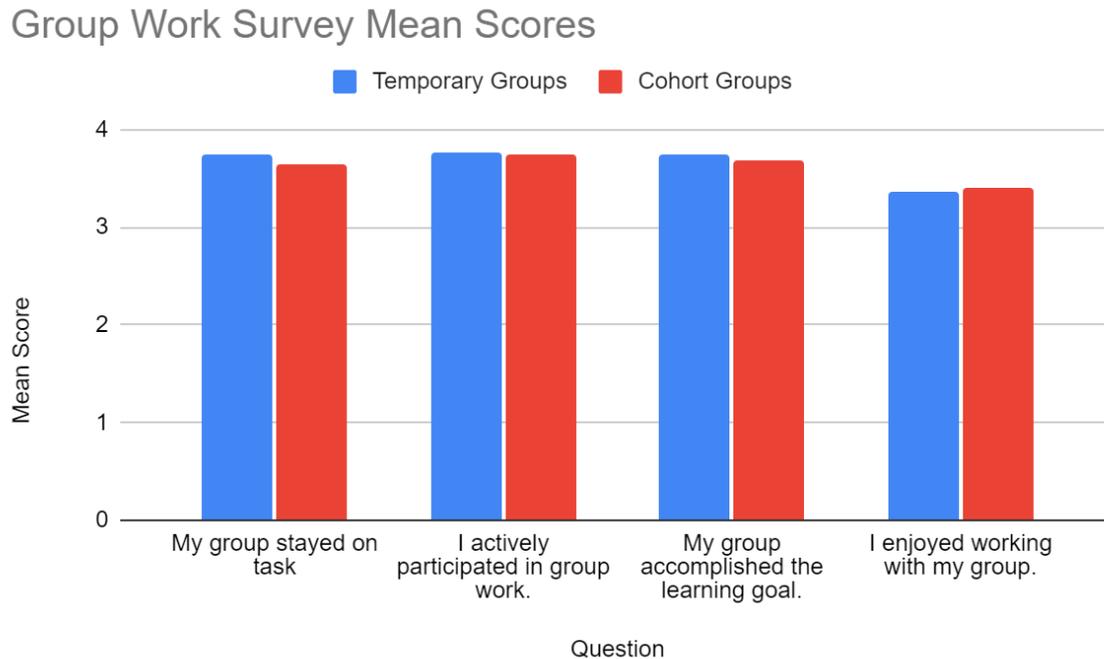
Each statement focused on student perceptions towards group learning and participation. The mean score for each individual survey response was calculated for temporary and cohort groups. Another ANOVA test was performed to compare student perceptions towards group learning and participation between temporary and cohort student groups.

Results from the ANOVA test showed a mean score of 3.65 for students in temporary groups. The cohort mean score was 3.62. This shows that students in both temporary and cohort groups perceived a high level of group participation and productivity in their learning activities. The mean score for temporary groups was slightly higher than that of the cohort groups. The p-value was a 0.1918, which means we cannot find a statistically significant difference in perceptions of group participation and productivity between temporary and cohort groups.

Student Interviews

Six students were selected to participate in an interview the week following the study completion. These students were chosen based on gender and on whether they participated in cohort groups or temporary groups. The interviews provided deeper insight for the researcher regarding student perceptions towards learning and group participation in temporary and cohort groups. The interview also allowed students to engage in further reflection and greater elaboration on their surveys and group learning experiences. The questions from the interview are identified in Appendix C. The interview was recorded and transcribed for the researcher to code and find key themes and patterns. The main themes that emerged were the following: general attitudes towards group work and groupmates, development of trust and community within student groups, and the ability to acquire multiple perspectives and insights from other students in group learning activities. For the sake of anonymity, students were assigned the following pseudonyms: Greta, Lisa, Sara, Paul, Vernon, and Victor.

General Attitudes towards Group Work and Group Learning Experiences

Each student was asked questions about their general thoughts and feelings towards group learning in the study. Each student described an overall positive and beneficial experience learning in small groups. Vernon described the experience as being "just good overall" and that he liked "to keep switching off the groups because there's a lot more fun" (Personal communication, 3-12-21). Lisa said she liked working in groups "because you don't need to do as much work" (Personal communication, 3-12-21). Both were in temporary groups. Paul was in a cohort group. He appreciated that "every time we come in the class, we always have a group that we go to so we don't waste any time" (Personal communication, 3-12-21).

One key observation was students' perceptions towards individual groupmates. Multiple students claimed that who their groupmates were affected their general attitudes towards group learning activities. If students viewed the classmates in their groups positively, then the general attitude towards the group learning was favorable. If certain students were not close friends or were known for slacking off, then their view worsened. For example, Victor, who was in a cohort group, noted that "it's good if you like your group, but if you don't really like the people in your group then it can be tough" (Personal communication, 3-12-21). Towards the end of the interview, Sarah pointed out how in temporary groups if she had "at least a few of my friends in my group, then I'll be fine" (Personal communication, 3-12-21).

Development of Trust and Community

Interview questions also focused on how effective their group types were at developing feelings of trust and community. Students expressed a mostly positive experience with the development of trust and community, especially in cohort groups. In cohort groups, multiple students enjoyed getting to know their groupmates more throughout the 5 weeks. Greta remarked "it did make it a lot easier to talk to them and kind of get to know them more when you had the same groups" (Personal communication, 3-12-21). Paul really enjoyed learning in cohort groups and the community that developed from it. He expressed how "it's just like a lot more fun when we get to know each other," that he "liked the same groups a lot more too because you just got to know them better and it was just like a lot more easy to communicate with them," and "it worked a lot better because you start to know them and understand and just kind of reach out to them" (Personal communication, 3-12-21). Greta felt an increased sense of comfort and trust with her cohort group. She stated "it's easier to say I'm confused or I don't understand. You kind of felt like they'd help you a bit more than laugh at you" (Personal communication, 3-12-21).

Students who worked in temporary groups described more complications with how trust and community developed. Although Lisa felt she was able to trust others more by the end of the study, she also bemoaned that "it was kind of harder because we switched our groups and you weren't as comfortable as you were with like the people who stayed with their same group." She also remarked "it would be nice to stay with one group to stay with one group to get to know them and you could, like, work better with them" (Personal communication, 3-12-21). Sarah overall appreciated her experience in temporary groups, but she noted that a downside was "you can't express your feelings to the people more because you're switching all the time" (Personal communication, 3-12-21). Vernon had similar concerns, but he also noted that he did not actually experience that mistrust and discomfort and "it was just the thought that came to my mind" (Personal communication, 3-12-21).

Ability to Acquire Multiple Perspectives

Other interview questions encouraged students to consider how their groups encouraged the sharing of multiple perspectives to bolster learning. Students in both types of groups expressed appreciation for how group learning allows for more perspectives and ideas. This was expressed more often and more clearly, however, in students working in temporary groups. For example, Sarah appreciated that she "got to hear other people's perspectives on the topic and you got to hear other people's ideas so that made you think about it and come up with your own ideas too" and how in one of her groups "they just kind of like opened up my mind to different ideas about things" (Personal communication, 3-12-21). Sarah also agreed that "it was easier for me too because it was not just my own ideas" (Personal communication, 3-12-21). Vernon echoed how he enjoyed "different variety in your group," and that switching group made it possible to "go with like three girls or you can go with like a boy group" (Personal communication, 3-12-

21). Students in cohort groups found value in how group work in general allowed for more points of view too. In the last activity of the study, Paul noted "it was a lot better" because "you got to hear people's different perspectives on stuff. So, like together you can make a conclusion" (Personal communication, 3-12-21).

Discussion

Overview of the Study

The purpose of this study was to describe students' perceptions of and participation in group learning. Specifically, the study was designed and implemented to answer the questions: Does student participation in group work increase or decrease using cohort groups versus temporary groups? Do students perceive higher or lower levels of learning and participation in cohort groups or temporary groups? To answer these questions, the researcher conducted a mixed-methods study and organized two social studies classes into temporary groups and two other social studies classes into cohort groups. Students completed a pretest-posttest Google Form survey identifying their perceptions regarding general attitudes, trust and community, and multiple perspectives in group learning. For five weeks, students regularly participated in group learning activities. After each learning activity, students completed another Google Form survey on their perceptions towards group learning and participation. After the completion of the study, six students were chosen to participate in a semi-structured interview. The interviewees were asked open-ended questions that provided further detail towards student perceptions towards and experiences in cohort and temporary group learning.

Summary of Findings

Research indicates that cooperative learning can help foster a learning environment for students that maximizes student learning and improves student achievement (Hoorani, 2014), as

well as increase student perceptions and attitudes towards learning (Erdogan, 2019). The group

work survey utilized in this study demonstrated this for temporary and cohort groups, and

student perceptions towards group learning and participation were high. On a four-point Likert

scale, students in temporary groups recorded a mean score of 3.65, which was similar for cohort

groups that averaged a score of 3.62 (Figure 3). These mean scores measured students'

perceptions towards their group's focus and ability to reach the learning target for that activity.

Students felt confident that they participated positively in productive group work and learning.

Regarding general attitudes towards group learning, the interview made it clear to the

researcher how important intentional group assignments are. Students in temporary and cohort

groups identified in the interview how important it was to have group members they respected

and liked. As Victor mentioned, "if you don't really like the people in your group then it can be

tough" (Personal communication, 3-12-21). Victor worked in a cohort group. However, students

in temporary groups made similar observations from their experiences. This was apparent to

Sarah, who said that if there was "at least a few of my friends in my group, then I'll be fine"

(Personal communication, 3-12-21). Regardless of whether students worked in cohort or

temporary groups, it was important to students that they respected their group members and

wanted teachers to carefully consider how groups were formed.

This idea of strategically formed groups was identified by Michaelsen and Sweet (2011)

as a key element in team-based learning, a specific type of cooperative learning that uses cohort

groups. Cooperative learning can be most advantageous when using team-based learning or

cohort groups. Lerma (2007) noted in his research that students who regularly work in the same

groups develop more positive attitudes and learning experiences. Data from the pretest-posttest

survey and interview indicated increased positive attitudes for both temporary and cohort groups.

For temporary groups, the mean score towards general attitudes increased from 3.26 to 3.43 between the pretest and posttest survey (Figure 1). Similarly, the mean score in cohort groups for general attitudes rose from 3.35 to 3.68 (Figure 2). Although both types of groups experienced a noticeable improvement, only the cohort group mean score difference proved to be statistically significant with a p-value of 0.0135. This suggested that learning in cohort groups can enhance general attitudes more than temporary groups.

One area explored by the researcher was student perceptions towards the development of trust and community in group learning. The study conducted by Greenlee and Karanxha (2010) indicated greater feelings of trust and community for students in cohort groups than non-cohort groups. This was confirmed in pretest-posttest survey data. Mean scores on trust and community for temporary groups decreased slightly from 3.15 to 3.12 (Figure 1). On the other hand, students in cohort groups recorded an increased mean score from 3.15 to 3.25 (Figure 2). Although this cannot be interpreted as a statistically significant difference, it is notable that only the cohort group student mean score increased from the pretest to the posttest. The interview provided further insight on feelings of trust and community for students in both groups. Although students from both groups did sense at least some development of trust and community, Lisa worked in temporary groups and described a harder and more awkward group learning experience because "she wasn't as comfortable" with changing groups regularly (Personal communication, 3-12-21). In contrast, Paul described how the development of trust and community in his cohort group helped him get "to know them better" making it "a lot more easy to communicate with them" (Personal communication, 3-12-21). In this study, students in cohort groups experienced and perceived greater development of trust and community compared to their peers in temporary groups.

Although the development of trust and community proved to be a key advantage for cohort groups compared to temporary groups, there were advantages for temporary groups as well. Through the pretest-posttest survey and interview, it became apparent that switching groups allowed for broader student interactions and greater ability to use multiple perspectives to enhance learning. In cohort groups, there was no difference between the mean scores (2.96) for multiple perspectives in the pretest-posttest survey (Figure 2). On the other hand, the temporary groups experienced a slight improvement from pretest to posttest. Although the increase was minor and not statistically significant (p-value of 0.8824), the mean score did increase from 3.02 to 3.04 (Figure 1). The researcher gained increased insight on multiple perspectives in group work from the interview. Students from temporary groups were more willing to point out the value of working with different classmates on a regular basis. Vernon commented that he appreciated the different variety provided by temporary groups (Personal communication, 3-12-21). Sarah showed great interest in the value of multiple perspectives in temporary groups. She stated that it was easier for her to learn "because it was not just my own ideas," and that getting to work with different students regularly "opened up my mind to different ideas about things" (Personal communication, 3-12-21). One advantage of cooperative learning is getting to share and exchange ideas from different viewpoints, but this study showed it was more perceivable for students in temporary groups compared to cohort groups.

Recommendations

Group learning has become a highly valued technique in instruction as evidenced by standards such as C3 Framework developed by the National Council of Social Studies (2013). In an increasing globalized and connected world, there is tremendous value in teaching students how to learn with others through group work. This is particularly valuable in Christian education,

in which students and teachers are encouraged to learn as a body of Christ and as relational

image bearers of God. A primary recommendation for group learning is to make sure teachers

intentionally form student groups. Most students responded favorably to group learning in the

surveys, but students in the interview consistently highlighted an improved perception when able

to work with classmates they respected and liked. Therefore, it is important to group students

with similar interests and values to ensure a group cohesion. Group cohesion is the idea of trust

and community in a group, as highlighted in research done by Steen et. al (2014). This concept

of group cohesion is especially important when forming cohort groups, in which students are

working together for longer periods.

Also, the researcher recommends teachers implement cohort and temporary groups

together in their classrooms. Instead of working separate from each other, the advantages for

both group types can supplement and complement each other effectively. Data showed that

cohort groups help develop stronger bonds of trust and community in the classroom. Meanwhile,

temporary groups allow for increased use of multiple perspectives and increased breadth in

student interactions. The ability to use both group types together can provide an environment of

interdependence while still allowing for the entire classroom population to interact and learn

both from and with each other. Christians schools and teachers should embrace how cohort and

temporary group learning can celebrate individual diversity and develop meaningful community.

With this in mind, more research can be done to determine how cohort and temporary

groups can best be used together. If one type of group is used too much or too little, it could limit

the benefits that both offer. Cohort groups take time to build the depth of trust and community

that make it so advantageousness. Using them too frequently can prevent students from gaining

greater insight from other peers they would not be working with. There must be a balance between the two group types.

Another area for further research is providing student voice in how groups are formed and when they are used. This study focused on student perceptions towards group learning and participation. Students, however, did not get to choose their cohort group, and the temporary groups were determined through an online random simulator. Although the teacher has a primary responsibility to design and implement all forms of cooperative learning, students did express the importance of working with classmates they liked. It would be advantageous for more research to be done to determine how to incorporate greater student voice and choice in group selection and implementation in classroom learning.

Limitations

One limitation to this study was the COVID-19 pandemic. Many schools have implemented cohort group learning by necessity instead of choice. This inherently creates bias against cohort group learning and limits how the teacher can choose student groups. COVID-19 also placed extraordinary stress and pressure for students and teachers. When asked about switching groups regularly, Sarah appreciated how temporary groups allowed her to get to talk to more people because it had "been really hard to that kind of this year, the last year, is just talk to people" (Personal communication, 3-12-21). This sentiment may be less apparent under more normal circumstances.

Another limitation was that the researcher was also the teacher for the students who participated in the study. It is possible that student responses on surveys and the semi-structured interview were influenced by an already existing relationship between the teacher and students.

Also, snow days and student absences provided a limitation. There were a few snow days during the five-week study. This interrupted group learning for both temporary and cohort groups. Snow days can disrupt the continuity of a learning activity. Student absences from sickness or other personal reasons interfere with the develop of group cohesion and acquisition of multiple perspectives.

A final limitation was the limited sample size and time for this study. The study only lasted five weeks, and it is likely that group dynamics, perceptions, and experiences would change over a longer duration of time. In a smaller, less diverse school, student relationships already exist compared to larger schools with greater diversity.

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Appendix A

Pretest-Posttest Survey

Please provide honest responses to this survey.

1. I enjoy working in groups.

Almost never   Sometimes   Often   Almost always

2. Group work helps me learn.

Almost never   Sometimes   Often   Almost always

3. Having a strong relationship with my group members makes group work more effective.

Almost never   Sometimes   Often   Almost always

4. Switching who is in my group makes group work more effective.

Almost never   Sometimes   Often   Almost always

5. Keeping the same people in my group makes group work more effective.

Almost never   Sometimes   Often   Almost always

6. Getting to know the people who work in my group matters to me.

Almost never   Sometimes   Often   Almost always

7. Getting to hear different perspectives often in group work matters to me.

Almost never   Sometimes   Often   Almost always

8. The amount of trust I have in my group members influences how much I participate with

   my group.

Almost never   Sometimes   Often   Almost always

Appendix B

Group Work Survey

Please provide honest responses to this survey.

1. My group stayed on task.

| **1** | **2** | **3** | **4** |

Disagree   Agree

2. I actively participated in group work.

| **1** | **2** | **3** | **4** |

Disagree   Agree

3. My group accomplished the learning goal.

| **1** | **2** | **3** | **4** |

Disagree   Agree

4. I enjoyed learning with my group.

| **1** | **2** | **3** | **4** |

Disagree   Agree

Appendix C

Semi-Structured Interview

1. What did you enjoy about the group work we did?

2. What didn't you enjoy about the group work we did?

3. Did using temporary / cohort groups help you learn more or less?

4. What worked best about the group(s) you were in?

5. Do you think learning is best done in temporary or cohort groups? Which would you prefer?