

EFFECTIVENESS OF COOPERATIVE LEARNING IN SECONDARY SOCIAL STUDIES OF DEPARTMENT OF EDUCATION DIVISION OF ZAMBALES

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ABSTRACT: This study assessed the effectiveness of the utilization of Cooperative Learning (CL) in Secondary Social Studies instruction, in Zone 2, Department of Education, Division of Zambales during the 3rd quarter of the school year 2018-2019. A descriptive research design and survey questionnaire were the main data-gathering instruments. The researcher concluded that the teacher-respondents are female, in their early adulthood, specializing in Social Studies, Teacher I, holders of Bachelor Degrees with Master's units, quite new in the teaching profession and have attended few seminars. The level of performance of high school students in Social Studies using Cooperative Learning Methods and Activities improved from Pre-Test which is Approaching Proficiency to Proficient in the Post Test, increased chances for students' conflict, noise and limited techniques in maintaining students' motivation were the challenges sometimes encountered when cooperative learning was utilized in teaching Social Studies lesson and contents. There is a significant difference in the perceived effectiveness of cooperative learning to students of the elements of Individual Accountability, Small Group and Interpersonal Skills, and Group Processing when attributed to teachers' age. There are no significant differences in the perceived effectiveness of cooperative learning to students for Face to Face Interaction when attributed to teachers' profile and the perception of the extent of occurrence of problems/challenges in the utilization of cooperative learning when grouped according to teachers' profile variables, and there is a highly significant difference on the result of pre-test and a post-test score of the high school students in Social Studies using cooperative learning method and learning activities was established. Teachers may plan ahead cooperative learning activities and tasks in which students work together on specific roles and materials (Positive Interdependence); learn how to strengthen communication skills (Individual Accountability); encourage each other to learn and perform the task (Face to Face Interaction); develop more sensitivity and appreciate with others (Small Group and Interpersonal Skills), and reflect on the feedback they receive (Group Processing).

KEYWORDS: *Cooperative Learning, Positive Interdependence, Individual Accountability, Promotive Interaction, Small Group, and Interpersonal Skills, Group Processing*

I. RELATED LITERATURE AND STUDIES

The Cooperative Learning (CL)

The term cooperative learning (CL) refers to students working in groups on a task or project when certain requirements are met, such as that each team member is responsible for the entirety of the task or project's content (Felder & Brent, 2007).

Cooperative learning is a term used to describe a number of teaching strategies in which pupils work in groups and are each responsible for their own learning while supporting one another and exchanging knowledge to learn academic material (Xuan, 2015).

Positive Interdependence

This is a component of cooperative learning where members of a group with similar goals believe that working together is advantageous both personally and collectively, and that participation from all members is necessary for success. Cooperative learning is built on positive interdependence. If there is no constructive dependency, cooperation cannot exist (Johnson, Johnson & Holubec, 1998). When students think they can only succeed academically if other students in their cooperative group also succeed, they have positive dependency (Johnson and Johnson, 1987 as cited in Akhtar, Perveen, Kiram, Rashid & Satti, et al., 2012).

Individual Accountability

Cooperative groups are designed to strengthen each member as an individual. Each member of the team should be able to demonstrate mastery of the prescribed material and demonstrate how they have contributed to the team. The concept of "equal participation" is also the foundation of individual accountability (Johnson & Johnson 1998 Model, as quoted in Felder & Brent, 2007). Individual accountability is the practice of holding each student in a group responsible for completing their fair share of the assigned tasks and demonstrating mastery of all required curriculum (Johnson & Johnson, 1998 Model as cited in Laguador, 2014).

Promotive Interaction

The third basic element of Johnson, Johnson & Holubec, 1998 Model Cooperative Learning is Promotive Interaction, preferably face-to-face. Each activity can be structured into group task directions and procedures. Learners are expected to help each other and share resources and explain and teach what they know to other group members (e.g. orally explaining how to solve problems, sharing one's knowledge, checking for understanding, discussing concepts, and connecting present with past learning (Felder & Brent, 2007). Face-to-face promotive interaction wherein although some of the group work may be parceled out and done individually, some must be done interactively, with group members providing one another with feedback, challenging reasoning and conclusions, and perhaps most importantly, teaching and encouraging one another (Johnson & Johnson, 1998 Model as cited in Laguador, 2014).

Small Group and Interpersonal Skills

In the cooperative learning process, students are required to learn academic knowledge. Also, they learn interpersonal and small-group skills required to function as part of a team. In view of Johnson, Johnson & Smith (2000).

By working in teams, they learn skills in how to listen to and tolerate others' viewpoints, build trust, and provide mutual support and encouragement (Xuan, 2015).

Group Processing

The fifth basic element of Johnson, Johnson & Holubec (1998) Cooperative Learning Model. According to Felder & Brent (2007), group processing explains how a teacher gets students to reflect on their group's work. To what extent were students able to reflect on their work before you introduced group processing? To what extent are they able to reflect now? Sheehy (2009) stated that in group processing, cooperative team members think and discuss in a group. This is often referred to as reflection, debriefing, or processing. There are various ways to promote group processing. The purpose of group processing is to clarify and improve the effectiveness of the members in contributing to joint efforts to achieve the group's goals (Tran, 2014).

II. METHODOLOGIES

The researcher used a descriptive design for the research. The descriptive method of research is a purposive process of gathering, analyzing, classifying, and tabulating data about prevailing conditions, practices, beliefs, propounded issues, and effectiveness of relationships (Riel, 2015).

The total population of teacher-respondents was one hundred thirty-two (132) Social Studies (Araling Panlipunan) teachers from Junior and Senior High Schools and Integrated Schools at Zone 2, Division of Zambales such as Rofulo Landa National High School, Locloc National High School, Zambales National High School, JESMAG National High School, Amungan National High School, Botolan National High School, Panan National High School, New Taugtog National High School, Loob-Bunga National High School, Beneg National High School, Bancal Integrated School, San Juan Integrated School.

A survey questionnaire and test questions were the main tools in gathering the necessary data for the research study.

The survey questionnaire has four (4) parts. The first part gathered information on teacher-respondent profiles. The second part solicited perception on the effectiveness of Cooperative Learning in teaching Social Studies at the secondary level. A total of 25 indicators were distributed to five (5) aspects such as Positive Interdependence, Individual Accountability, Face to Face Interaction, Small Group and Interpersonal Skills, and Group Processing, with the corresponding four-point scale of 4 (Strongly Agree) to 1 (Strongly Disagree). The third part is concerned with the problems in CL of students. The last part concerned the problems in CL of students with the corresponding four-point scale of 4 (Always) to 1 (Never). The last part focused on determining the student's academic performance (pre-test and post-test) in Social Studies.

The researcher administered survey questionnaires to the respondents personally.

Data that were collected from the survey questionnaire were tabulated, analyzed, interpreted, and summarized accordingly with the aid of (1) descriptive statistical techniques such as frequency counts, simple percentage and mean; and (2) t-Test and Analysis of Variance (ANOVA).

III.

RESULTS AND DISCUSSIONS

1. Profile of the Teacher - Respondents

Table 2
Frequency, Percentage and Mean Distribution of the Respondents' Profile

Age	Frequency	Percent
61 - 65	8	6.06
56 - 60	2	1.52
51 - 55	3	2.27
46 - 50	9	6.82
41 - 45	23	17.42
36 - 40	27	20.45
31 - 35	38	28.79
26 - 30	18	13.64
25 - below	4	3.03
Total	132	100.00
Mean	38.45 or 38 years old	
Sex	Frequency	Percent
Male	24	18.20
Female	108	81.80
Total	132	100.00
Field of Specialization	Frequency	Percent
History	9	6.82
Social Science	19	14.39
Political Science	9	6.82
Social Studies	94	71.21
Biological Science	1	0.76
Total	132	100.00

Table 2
Frequency, Percentage and Mean Distribution of the Respondents' Profile
(Continuation)

Academic Rank/ Position	Frequency	Percent
Master Teacher	6	4.55
Teacher 3	15	11.36
Teacher 2	33	25.00
Teacher 1	78	59.09
Total	132	100.00
Highest Educational Attainment	Frequency	Percent
Doctorate Degree	1	0.76
Masters' w/ Ed.D. Units	3	2.27
Masters' Degree	18	13.64
Bachelor w/ Master Units	63	47.73
Bachelor	47	35.61
Total	132	100.00
Number of Years Teaching	Frequency	Percent
36 & above	6	4.55
31 - 35	2	1.52
26 - 30	4	3.03
21 - 25	2	1.52
16 - 20	5	3.79
11 - 15	10	7.58
6 - 10	21	15.91
0 - 5	82	62.12

Total	132	100.00
Mean	8.23 years	
Number of Seminar Attended in Social Studies	Frequency	Percent
13 above	11	8.33
10 - 12	6	4.55
7 - 9	13	9.85
4 - 6	30	22.73
0 - 3	72	54.55
Total	132	100.00
Mean	4.41 or 4 seminars	

Age. The mean age was 38.45 or 38 years old.

Sex. 24 or 18.20% are male and 108 or, 81.80% are female.

Field of Specialization. An overwhelming majority (94 or 71.21%) of the 132 respondents specialize in Social Studies; followed by 19 (14.39%), in Social Science; 9 teachers specializing ed History and Political Science respectively; and 1 (0.76%) in Biological Science.

Academic Position. Seventy-eight (78 or 59.09%) respondents are Teacher 1; 33 or 25.00% are Teacher 2; there are 15 or 11.36%, Teacher 3 and 6 or 4.55% are Master Teachers. As for the resultofn teachers' present academic position in the present study, more than half (59.09%) are Teacher I.

Highest Educational Attainment. Most (63 or 47.73%) of the teacher-respondents are Bachelor w/ Masters units; followed by 47 or 35.61%, who are Bachelor's degree holders; 18 or 13.64%, Master's degree holders; 3 or 2.27%, Master's degree w/ Ed. D. units; and 1 Doctorate Degree holder (0.76%). The result suggests that the majority (67 or 62.04%) of the Social Studies teacher-respondents Bachelor'selor Degree holder with Master's units.

A number of Years Teaching. The number of services was 8.23 or 8 years.

Number of Seminars Attended in Social Studies. As for the number of seminars attended by the teacher-respondents, most (72 or 54.55% attended seminars ranging from 0-3 times; followed by 30 teachers (22.73%) who attended 4-6 times; 13 (9.85%) for 11-15 times; 11 (8.33%) times; and 6 (4.55%) teachers for 10-12 seminars. The mean of seminars attended in Social Studies was 4.41 or 4.

The Pre-Test and Post-Test Performances of High School Students in Cooperative Learning

Table 3: Pre-Test and Post-Test Performances of High School Students in Cooperative Learning

Descriptive Value	Numerical Value	Frequency	Percent	Frequency	Percent
Advanced	90 & above	78	20.16	185	47.80
Proficient	85 - 89	86	22.22	137	35.40
Approaching Proficiency	80 - 84	121	31.27	49	12.66
Developing	75 - 79	60	15.50	15	3.88
Beginning	74 & below	42	10.85	1	0.26
	Total	387	100.00	387	100.00
	Mean	83.18 Approaching Proficiency		89.05 Proficient	

For the pre-test, most or 121 students (31.27%) gained a performance of 80-84 described as approaching proficiency; 86 (22.22%), Proficient; and 78 (20.16%) Advanced. The computed mean score was 83.18 interpreted as Approaching Proficiency. The level of performance of high school students in pre-test was Approaching Proficiency. For the post test, most or 185 students (47.80%) gained a performance of 90-and above described as advanced; 137 (35.40%), Proficient; and 49 (12.66%) Approaching Proficiency. The computed mean score was 89.05 interpreted as Proficient.

2. Perception on the Effectiveness of Cooperative Learning Elements to Students

3.1 Positive Interdependence

Table 4: Mean Rating on the Effectiveness of Cooperative Learning for Students in terms of Positive Interdependence

Indicators	WM	DE	Rank
1. Students work together on specific roles and one specific materials	3.27	Strongly Agree	10
2. Students recognize that students' individual success is linked to the success of every member of the group	3.50	Strongly Agree	1
3. Students develop appreciation on others work and contribution to the task	3.40	Strongly Agree	5
4. Students develop confidence in their abilities as well as other's	3.42	Strongly Agree	3
5. Students brainstorm and plan for more effective and efficient procedure/process	3.37	Strongly Agree	6
6. Students work on more effective strategy to accomplish group goals	3.33	Strongly Agree	7
7. Students gain greater self-knowledge of how and when they learn something new	3.42	Strongly Agree	3
8. Students gain some skill of assessing one's potentials and capabilities	3.31	Strongly Agree	9
9. Students willingly work on shared goals, outcomes, and rewards	3.33	Strongly Agree	7
10. Students learn to promote relationships that is encouraging rather than inhibit learning	3.45	Strongly Agree	2
Overall Weighted Mean	3.38	Strongly Agree	

The Overall Weighted Mean (OWM) for the Effectiveness of Cooperative Learning in terms of Positive Interdependence was 3.38 with the descriptive equivalent of Strongly Agree. The Social Studies teachers strongly agreed on the effectiveness of cooperative learning specifically in developing Positive Interdependence skills in incidents.

2.1 Individual Accountability

Table 5: Mean Rating on the Effectiveness of Cooperative Learning for Students in terms of Individual Accountability

Indicators	WM	DE	Rank
1. Students are empowered to draw up arguments based on evidence	3.29	Strongly Agree	9
2. Students are empowered to give views to presented arguments	3.39	Strongly Agree	4
3. Students learn how to respect the views of their peers	3.45	Strongly Agree	2
4. Students practice being good conversationalists in a polite manner	3.43	Strongly Agree	3
5. Students develop sense of responsibility to share toward the group goal	3.34	Strongly Agree	5
6. Students learn how to strengthen their communication skills	3.22	Agree	10
7. Students accept some amount of obligation/s	3.33	Strongly Agree	7
8. Students are invested with task of searching and finding evidences/data	3.33	Strongly Agree	7
9. Students look forward for the result/s of feedbacks	3.52	Strongly Agree	1
10. Students are users of assessment feedbacks	3.33	Strongly Agree	6
Overall Weighted Mean	3.36	Strongly Agree	

The Overall Weighted Mean (OWM) for the Effectiveness of Cooperative Learning in Individual Accountability was 3.36 with the descriptive equivalent of Strongly Agree. The Social Studies teachers strongly agreed on the effectiveness of cooperative learning, specifically increasing students' sense of Individual Accountability.

2.2 Face to Face Interaction

Table 6: Mean Rating on Effectiveness of Cooperative Learning for Students in terms of Face to Face Interaction

Indicators	WM	DE	Rank
1. Students produce a level of engagement that other forms of learning cannot	3.26	Strongly Agree	4
2. Students produce a level of discussion/arguments that other forms of learning cannot	3.17	Agree	8
3. Students produce a level of interactions that other forms of learning cannot	3.29	Strongly Agree	2
4. Students encourage each other to study, learn and perform the task	3.11	Agree	10
5. Students help and support each other to learn the task.	3.17	Agree	8
6. Students praise other's efforts to learn	3.26	Strongly Agree	4
7. Students develop some positive behaviors	3.27	Strongly Agree	3
8. Students prefer to maintain/sustain interaction	3.34	Strongly Agree	1
9. Students prefer to maintain desirable relationship	3.18	Agree	7
10. Students remain together until they have experienced success	3.24	Strongly Agree	6
Overall Weighted Mean	3.23	Agree	

The Overall Weighted Mean (OWM) for the Effectiveness of Cooperative Learning in terms of Face-to-Face Interaction was 3.23 with the descriptive equivalent of Agree. The Social Studies teachers strongly agreed on the effectiveness of cooperative learning specifically on students benefiting from Face-to-Face Interaction.

2.3 Small Group and Interpersonal Skills

Table 7: Mean Rating on the Effectiveness of Cooperative Learning for Students in terms of Small Group and Interpersonal Skills

Indicators	WM	DE	Rank
1. Students are accountable for what they contribute with each other	3.14	Agree	9
2. Students are also accountable for how they contribute with each other	3.33	Strongly Agree	2
3. Students are accountable for what they interact with each other	3.34	Strongly Agree	1
4. Students are also accountable for how they interact with each other	3.25	Strongly Agree	7
5. Students develop further composure, confidence and positivity	3.27	Strongly Agree	5
6. Students learn more appropriate individual attitudes and skills	3.30	Strongly Agree	3
7. Students develop further team interaction skills	3.19	Agree	8
8. Students develop further team productivity skills	3.29	Strongly Agree	4
9. Students develop further social skills	3.27	Strongly Agree	6
10. Students develop more sensitivity and appreciate with others	3.13	Agree	10
Overall Weighted Mean	3.25	Strongly Agree	

The Overall Weighted Mean (OWM) for the Effectiveness of Cooperative Learning in terms of Small Group and Interpersonal Skills was 3.25 with the descriptive equivalent of Strongly Agree. The Social Studies teachers strongly agreed on the effectiveness of cooperative learning specifically in developing students' small group and interpersonal skills.

2.4 Group Processing

Table 8: Mean Rating on Effectiveness of Cooperative Learning for Students in terms of GROUP PROCESSING

Indicators	WM	DE	Rank
1. Students contribute effectively to the efforts of the group	3.26	Strongly Agree	4
2. Students as member of the group accept responsibility	3.28	Strongly Agree	2
3. Students help each other in setting achievable target goals	3.30	Strongly Agree	1
4. Students discuss how to improve the quality of their work.	3.20	Agree	8
5. Students help each other to achieve goals to improve the quality of their work.	3.25	Strongly Agree	5
6. Students analyze on the feedback they receive.	3.20	Agree	7
7. Students reflect on the feedback they receive.	3.15	Agree	10
8. Students follow procedures for effective group discussion	3.27	Strongly Agree	3
9. Students share on their experiences in working with each other.	3.18	Agree	9
10. Students reflect on their experiences in working with each other.	3.25	Strongly Agree	5
Overall Weighted Mean	3.23	Agree	

The Overall Weighted Mean (OWM) for the Effectiveness of Cooperative Learning in terms of Group Processing was 3.23 with the descriptive equivalent of Agree. The Social Studies teachers agreed on the effectiveness of cooperative learning specifically in developing students' group process skills.

Table 9: Summary of Rating of Benefits of the Five Elements of Cooperative Learning

KNOWLEDGE DOMAINS	OWM	DE	Rank
1. Positive Interdependence	3.38	Strongly Agree	1
2. Individual Accountability	3.36	Strongly Agree	2
3. Face to Face Interaction	3.23	Agree	4.5
4. Small Group and Interpersonal Skills	3.25	Strongly Agree	3
5. Group Processing	3.23	Agree	4.5
Grand Mean	3.29	Strongly Agree	

The grand mean of the benefits of the Elements of Cooperative Learning was 3.29, Strongly Agree as descriptive equivalent.

3. Extent of Occurrence of Problems/ Challenges in the Utilization of Cooperative Learning

Table 10: Mean Rating on the Extent of Occurrence of Problems/ Challenges in the Utilization of Cooperative Learning

PROBLEMS CHALLENGES	WM	DE	Rank
1. Students may become more passive and lack focus on the task.	2.98	Sometimes	14
2. Students may simply not have the skills to help one another	2.98	Sometimes	15

3. Students may chose not to work as hard as others	3.20	Sometimes	3
4. Students may have increased chances for conflict and noise	3.24	Sometimes	1
5. Group sizes may complicate communication and division of work	3.17	Sometimes	5
6. Limited techniques in maintaining motivation among students	3.23	Sometimes	2
7. Difficulty of choosing authentic performance tasks	3.12	Sometimes	9
8. Demand significant time from teachers in terms of guidance	3.14	Sometimes	6
9. Demand significant time for planning learning activities	3.20	Sometimes	3
10. Unclear instructions which may lead to unnecessary student behaviors	3.10	Sometimes	11
11. Adjustment in utilizing alternative assessment tools	3.14	Sometimes	7
12. Not communicating in advance the assessment criteria	3.14	Sometimes	7
13. Limited time in the preparation of rubrics, rating scales, and rating sheets	3.11	Sometimes	10
14. Communicating the result of an assessment of group task is done irregularly	3.08	Sometimes	12
15. Make anecdotal notes of observations during group work	3.01	Sometimes	13
Overall Weighted Mean	3.12	Sometimes	

The Overall Weighted Mean (OWM) on the extent of occurrence of problems/ challenges in the utilization of Cooperative Learning was 3.12 with the descriptive equivalent of Sometimes. The teacher-respondents sometimes encountered challenges in the utilization of cooperative learning in teaching Social Studies.

4. Analysis of Variance (ANOVA) to Test the Difference in Effectiveness of Cooperative Learning Elements

Table 11: Analysis of Variance to Test the Difference on Effectiveness of Cooperative Learning in terms of POSITIVE INTERDEPENDENCE when grouped according to profile Variables

Source of Variation		Sum of Squares	df	Mean Square	F	Sig.	Decision/ Interpretation
Age	Between Groups	4.38	8	0.55	3.37	0.00	Reject Ho Significant
	Within Groups	19.96	123	0.16			
	Total	24.34	131				
Sex	Between Groups	0.57	1	0.57	3.10	0.08	Accept Ho Not Significant
	Within Groups	23.77	130	0.18			
	Total	24.34	131				
Specialization	Between Groups	0.95	4	0.24	1.29	0.28	Accept Ho Not Significant
	Within Groups	23.39	127	0.18			
	Total	24.34	131				
Highest Educational Attainment	Between Groups	1.39	4	0.35	1.92	0.11	Accept Ho Not Significant
	Within Groups	22.95	127	0.18			
	Total	24.34	131				
Academic Rank/ Position	Between Groups	1.40	3	0.47	2.60	0.05	Reject Ho Significant
	Within Groups	22.94	128	0.18			
	Total	24.34	131				
Number of Years Teaching	Between Groups	0.74	7	0.11	0.56	0.79	Accept Ho Not Significant
	Within Groups	23.59	124	0.19			
	Total	24.34	131				
Number of Seminar Attended in Social Studies	Between Groups	0.81	4	0.20	1.09	0.37	Accept Ho Not Significant
	Within Groups	23.53	127	0.19			
	Total	24.34	131				

Age and academic status both had significant values below the (0.01) alpha level of significance (significant values: 0.00 and 0.05, respectively). The null hypothesis is therefore disproved. When the age and academic

standing of the teachers are taken into account, there is a highly substantial difference in how effectively cooperative learning is seen by the students as having the aspect of positive dependency.

Table 12 : Analysis of Variance to Test the Difference in the Effectiveness of Cooperative Learning in terms of Individual Accountability when grouped according to Profile Variables

Source of Variation		Sum of Squares	df	Mean Square	F	Sig.	Decision/ Interpretation
Age	Between Groups	3.90	8	0.49	3.15	0.00	Reject Ho Significant
	Within Groups	19.07	123	0.16			
	Total	22.97	131				
Sex	Between Groups	0.30	1	0.30	1.72	0.19	Accept Ho Not Significant
	Within Groups	22.67	130	0.17			
	Total	22.97	131				
Specialization	Between Groups	0.51	4	0.13	0.72	0.58	Accept Ho Not Significant
	Within Groups	22.46	127	0.18			
	Total	22.97	131				
Highest Educational Attainment	Between Groups	0.70	4	0.18	1.00	0.41	Accept Ho Not Significant
	Within Groups	22.27	127	0.18			
	Total	22.97	131				
Academic Rank/ Position	Between Groups	1.06	3	0.35	2.07	0.11	Accept Ho Not Significant
	Within Groups	21.91	128	0.17			
	Total	22.97	131				
Number of Years Teaching	Between Groups	1.17	7	0.17	0.95	0.47	Accept Ho Not Significant
	Within Groups	21.80	124	0.18			
	Total	22.97	131				
Number of Seminar Attended in Social Studies	Between Groups	0.62	4	0.15	0.88	0.48	Accept Ho Not Significant
	Within Groups	22.36	127	0.18			
	Total	22.97	131				

There is no significant difference in the perceived effectiveness of cooperative learning among students as to the element of Individual Accountability when attributed to teachers' sex, the field of specialization, highest educational attainment, academic position, years of teaching, and the number of seminars attended in Social Studies. Finding also shows that the teachers have the likeness of perceived effectiveness of Individual Accountability, a cooperative learning element when features of this element are considered and utilized in Social Studies classroom even if they vary in terms of sex, the field of specialization, highest educational attainment, academic position, years in teaching and number the of the seminar attended in Social Studies. The significant values for age (0.00) were lower than the (0.01) alpha level of significance. The null hypothesis is therefore disproved. There is a highly significant difference in the perceived effectiveness of cooperative learning to students of the element of Individual Accountability when attributed to teachers' age.

Table 13: Analysis of Variance to Test the Difference in the Effectiveness of Cooperative Learning in terms of Face-to-Face Interaction when grouped according to Profile Variables

Source of Variation		Sum of Squares	df	Mean Square	F	Sig.	Decision/ Interpretation
Age	Between Groups	2.17	8	0.27	1.36	0.22	Accept Ho Not Significant
	Within Groups	24.58	123	0.20			
	Total	26.76	131				
Sex	Between Groups	0.33	1	0.33	1.64	0.20	Accept Ho Not Significant
	Within Groups	26.42	130	0.20			
	Total	26.76	131				
Specialization	Between Groups	0.83	4	0.21	1.02	0.40	Accept Ho Not Significant
	Within Groups	25.92	127	0.20			
	Total	26.76	131				
Highest Educational	Between Groups	1.59	4	0.40	2.00	0.10	Accept Ho Not
	Within Groups	25.17	127	0.20			

Attainment	Total	26.76	131				Significant
Academic Rank/ Position	Between Groups	1.44	3	0.48	2.42	0.07	Accept Ho Not Significant
	Within Groups	25.32	128	0.20			
	Total	26.76	131				
Number of Years Teaching	Between Groups	0.35	7	0.05	0.23	0.98	Accept Ho Not Significant
	Within Groups	26.41	124	0.21			
	Total	26.76	131				
Number of Seminar Attended in Social Studies	Between Groups	1.30	4	0.33	1.62	0.17	Accept Ho Not Significant
	Within Groups	25.45	127	0.20			
	Total	26.76	131				

There is no significant difference in the perceived effectiveness of cooperative learning to students of the element Face to Face Interaction when attributed to teachers' profiles. This particular result means that the teachers have the likeness of perceived effectiveness and usefulness of Face-to-Face Interaction, a cooperative learning element when features of this element are considered and utilized in the planning and teaching of Social Studies lessons even if they vary in terms of age, sex, the field of specialization, highest educational attainment, academic position, number of years in teaching and number of the seminar attended in which topics are Social Studies/Sciences.

There is no significant difference in the perceived effectiveness of cooperative learning to students of the element Small Group and Interpersonal Skills when attributed to teachers' sex, the field of specialization, highest educational attainment, academic position, years of teaching, and the number of seminars attended in Social Studies.

Table 14: Analysis of Variance to Test the Difference in the Effectiveness of Cooperative Learning in terms of Small Group and Interpersonal Skills when grouped according to Profile Variables

Source of Variation		Sum of Squares	df	Mean Square	F	Sig.	Decision/ Interpretation
Age	Between Groups	4.31	8	0.54	3.17	0.00	Reject Ho Significant
	Within Groups	20.94	123	0.17			
	Total	25.25	131				
Sex	Between Groups	0.28	1	0.28	1.47	0.23	Accept Ho Not Significant
	Within Groups	24.97	130	0.19			
	Total	25.25	131				
Specialization	Between Groups	0.33	4	0.08	0.43	0.79	Accept Ho Not Significant
	Within Groups	24.92	127	0.20			
	Total	25.25	131				
Highest Educational Attainment	Between Groups	1.32	4	0.33	1.76	0.14	Accept Ho Not Significant
	Within Groups	23.93	127	0.19			
	Total	25.25	131				
Academic Rank/ Position	Between Groups	0.56	3	0.19	0.97	0.41	Accept Ho Not Significant
	Within Groups	24.69	128	0.19			
	Total	25.25	131				
Number of Years Teaching	Between Groups	1.29	7	0.18	0.95	0.47	Accept Ho Not Significant
	Within Groups	23.96	124	0.19			
	Total	25.25	131				
Number of Seminar Attended in Social Studies	Between Groups	1.06	4	0.26	1.39	0.24	Accept Ho Not Significant
	Within Groups	24.19	127	0.19			
	Total	25.25	131				

The age-related significant values (0.00) were less than the significance level (0.01) at the alpha level. The null hypothesis is therefore disproved. When the age of the teachers is taken into account, there is a highly significant variation in the perceived effectiveness of cooperative learning to pupils of the elements Small Group and Interpersonal Skills.

Table 15: Analysis of Variance to Test the Difference in the Effectiveness of Cooperative Learning in terms of Group Processing when grouped according to Profile Variables

Source of Variation		Sum of Squares	df	Mean Square	F	Sig.	Decision/ Interpretation
Age	Between Groups	5.85	8	0.73	2.29	0.03	Reject Ho Significant
	Within Groups	39.31	123	0.32			
	Total	45.16	131				
Sex	Between Groups	0.27	1	0.27	0.77	0.38	Accept Ho Not Significant
	Within Groups	44.89	130	0.35			
	Total	45.16	131				
Field of Specialization	Between Groups	1.56	4	0.39	1.14	0.34	Accept Ho Not Significant
	Within Groups	43.60	127	0.34			
	Total	45.16	131				
Highest Educational Attainment	Between Groups	2.63	4	0.66	1.96	0.10	Accept Ho Not Significant
	Within Groups	42.53	127	0.33			
	Total	45.16	131				
Academic Rank/Position	Between Groups	1.29	3	0.43	1.25	0.29	Accept Ho Not Significant
	Within Groups	43.87	128	0.34			
	Total	45.16	131				
Number of Years Teaching	Between Groups	1.89	7	0.27	0.77	0.61	Accept Ho Not Significant
	Within Groups	43.27	124	0.35			
	Total	45.16	131				
Number of Seminar Attended in Social Studies	Between Groups	2.60	4	0.65	1.94	0.11	Accept Ho Not Significant
	Within Groups	42.56	127	0.34			
	Total	45.16	131				

There is no significant difference in the perceived effectiveness of cooperative learning to students of the element Group Processing when attributed to teachers' sex, the field of specialization, highest educational attainment, academic position, years of teaching, and the number of seminars attended in Social Studies.

Finding also shows that the teachers have the likeness of perceived effectiveness of Group Processing, a cooperative learning element when features of this group processing are considered and utilized in Social Studies classroom even, though they vary in term of sex, the field of specialization, highest educational attainment, academic position, years in teaching and number of seminars attended in Social Studies.

There is a significant difference in the perceived effectiveness of cooperative learning to students of the element Group Processing when attributed to teachers' age.

6. Analysis of Variance (ANOVA) to Test the Difference on the Extent of Occurrence of Problems/Challenges in the Utilization of Cooperative Learning

Table 16**Analysis of Variance to Test the Difference in Extent of Occurrence of Problems/Challenges in the Utilization of Cooperative Learning when grouped according to Profile Variables**

Source of Variation		Sum of Squares	df	Mean Square	F	Sig.	Decision/ Interpretation
Age	Between Groups	1.02	8	0.13	0.98	0.45	Accept Ho Not Significant
	Within Groups	15.95	123	0.13			
	Total	16.97	131				
Sex	Between Groups	0.05	1	0.05	0.39	0.53	Accept Ho Not Significant
	Within Groups	16.92	130	0.13			
	Total	16.97	131				
Field Specialization	Between Groups	0.51	4	0.13	0.99	0.42	Accept Ho Not Significant
	Within Groups	16.45	127	0.13			
	Total	16.97	131				
Highest Educational	Between Groups	0.33	4	0.08	0.62	0.65	Accept Ho Not Significant
	Within Groups	16.64	127	0.13			

Attainment	Total	16.97	131				
Academic Rank/ Position	Between Groups	0.15	3	0.05	0.37	0.78	Accept Ho Not Significant
	Within Groups	16.82	128	0.13			
	Total	16.97	131				
Number of Years Teaching	Between Groups	0.61	7	0.09	0.66	0.70	Accept Ho Not Significant
	Within Groups	16.35	124	0.13			
	Total	16.97	131				
Number of Seminar Attended in Social Studies	Between Groups	0.92	4	0.23	1.82	0.13	Accept Ho Not Significant
	Within Groups	16.05	127	0.13			
	Total	16.97	131				

There is no significant difference in the perception of the extent of occurrence of problems/challenges in the utilization of cooperative learning when grouped according to Profile Variables. Finding also shows that the teachers have likeness observed and experienced challenges and difficulties when cooperative learning approaches and strategies are utilized in teaching Social Studies lessons even though the respondents vary in terms of age, sex, the field of specialization, highest educational attainment, academic position and years in teaching.

7. t-Test of Difference on the Pre-Test and Post-Test Performance of Students in Cooperative Learning

Table 17 : Difference between the Pre-test and Post-test Performances of Students in Cooperative Learning

	N	Mean	t value	Sig.	Decision/ Interpretation
Pre - Test	387	83.18	1.97	0.00	Reject Ho Highly Significant
Post - Test	387	89.05			

The sig. value computed was 0.00 which is lower than the 0.01 alpha level of significance. The null hypothesis is rejected. There is a highly significant difference in the result of the pre-test and the post-test scores of the high school students in Social Studies using cooperative learning methods and learning activities.

V. CONCLUSION

In light of the foregoing conclusions of the study, the following recommendations were Teachers have to address challenges in the utilization of cooperative learning specifically students' conflict and noise, limited students motivation, students' unwillingness to work harder, the time required for planning learning activities; Teachers have to continue to utilize cooperative learning approach and methods in Social Studies lessons to enable the pupil to gain maximum benefits from the elements of positive interdependence, individual accountability, face to face interaction, small group, and interpersonal skills and group processing; and Conduct follow up study that would include a wider scope (e.g., High Schools in other Zones in the Division of Zambales for validation purpose.

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