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## **Students' Leadership Skills, Social Skills, and Decision-Making Skills towards Collaborative Learning Environment**

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### **ABSTRACT**

*The main purpose of this study was to investigate the level of students' leadership skills, social skills, and decision-making skills toward collaborative learning in the Inorganic Chemistry laboratory, as well as to determine the relationship between students' leadership skills, social skills, and decision-making skills. The participants of the study were first-year BSED Sciences students who experienced collaborative learning from the College of Education, Central Mindanao University. Total enumeration was the technique used to select the participants of the study. With a total population of seventy-seven (77) students, comprised of two sections. This quantitative study used a descriptive- correlational design, utilizing descriptive statistics and Pearson  $r$  correlations in interpreting the data. The study revealed that in collaborative learning the level of both students' leadership and social skills was high and decision-making skills were neutral indicating moderate decision-making skills. Only the students' leadership and social skills have a significant relationship, thus,  $H_{01}$  was rejected.  $H_{02}$  was accepted which states that students' leadership skills and decision-making skills have no significant relationship. Future researchers may use multiple regression analysis to predict which independent variables are known to predict the value of a single dependent variable.*

**KEYWORDS:** *leadership skills, social skills, decision-making skills, collaborative learning, inorganic chemistry laboratory, science education*

### **INTRODUCTION**

Globalization brought rapid changes in development in many areas, especially in the field of education. The effects of globalization are constantly changing the way that education is provided. As a result of globalization's effects on education, communication technology is developing quickly, and school systems around the world are anticipating changes to concepts, values, and knowledge as well as the roles of students and teachers [1]. In order for students to live and work in the evolving information environment of the 21st century, educators around the world are looking for strategies to prepare and develop the skills they will need. Developing 21st-century skills can be best administered in a collaborative learning environment wherein it allows students to use their individual assets while they work together on 21st-century learning skills. The ability of students to learn how to operate as a team and become involved in learning activities is developed through collaborative learning [2].

Leadership skills for students in collaborative learning are important as they actively participate in academic activities and by using this talent in various learning contexts, students can build leadership qualities. Leadership entails the ability to inspire others to work together to achieve common goals and to inspire ordinary people to undertake remarkable feats. In recent years, cognitive skills have garnered increased emphasis and have become significant in molding leaders' performance [3].

Students can build their leadership skills by actively engaging in any group or by participating in leadership training. It has been demonstrated that students with strong leadership skills in collaborative learning not only improve higher-level thinking abilities but also increase their self-assurance and self-esteem. On the other hand, “social skills form the backbone of an individual’s success”. Social skills for students are essential in collaborative learning as students develop and maintain positive interactions with others [4]. Good social skills are necessary for a person's successful functioning in life; by developing these skills, a person learns how to make good decisions, make good choices, and behave in a variety of situations. In addition, the ability to make decisions is widely regarded as the most crucial aspect of people's lives since it plays a crucial role in problem-solving and aids in helping people adapt to their environment. A recent study [5] explores the critical role of communication competence in managerial decision-making. This underscores the importance of developing communication skills among new college graduates to enhance their decision-making capabilities in professional settings.

The intention of this study was to investigate the level and correlate the variables; students' leadership skills, social skills, and decision-making skills, as these skills are necessary and vital to succeed in today's world.

This study discusses the level of students' leadership skills, social skills, and decision-making skills towards collaborative learning environment among BSED Sciences freshmen students. Students acquire these skills as early as feasible will have successful future professions.

## **METHODOLOGY**

The study was conducted using a descriptive- correlational research design, since it was attempted to examine the level of student’s leadership skills, social skills, and decision-making skills in collaborative learning. Moreover, it attempts to correlate the following variables: leadership skills and social skills, and leadership skills and decision-making skills. Upon gathering the data from the participants, the study utilized survey questionnaires adapted from different study namely: Student’s Leadership skills [6], Student’s Social skills [7] and Student’s Decision-making Skills [8]. This study was conducted within the premises of Central Mindanao University. Specifically, at the College of Education, Science Department. There were seventy-seven(77) participants which are 1st-year BSED Sciences students who experienced collaborative learning in doing their laboratory activities. After the data collection, data underwent descriptive statistics analysis by determining the mean, and standard deviation to interpret the students’ level of leadership skills, social skills, and decision-making skills. Furthermore, Pearson correlation coefficient (r) statistical analysis was utilized to determine the strength of the correlation between students’ leadership skills, social skills, and decision-making skills.

## RESULTS AND DISCUSSION

This chapter contains the presentation, analysis, and interpretation of data relative to the problems posited. The corresponding analysis and interpretation of data are incorporated in this portion of the study.

### Level of Student's Leadership Skills

Table 1 reveals the summary of the students level of Leadership skills. This variable consists of three (3) constructs namely: Administrative, Interpersonal, and Conceptual skills. The result of all the constructs obtained an overall rating of "Somewhat true" and a qualitative of "High Leadership Skills" Based on the result of the table, the overall mean is 3.59. This implies that 1st-year BSE Sciences students have high leadership skills in terms of administrative, interpersonal, and conceptual skills. The results show leaders have core leadership skills, such as administrative, interpersonal, and conceptual skills [6]. When students are actively engaged in academic activities and practice their leadership abilities in various learning environments, they may also improve these talents [9]. Leadership may also be seen in interactions when there is a strong sense of ownership and great awareness of the activity [10]. In addition, the results show that a collaborative learning environment doesn't only develop higher-order thinking skills, self-esteem, and confidence, hence it also develops leadership skill [11].

Table 1. Summary of the Student's Level of Leadership Skills

Dimensions	Mean	Descriptive Rating	Qualitative Interpretation
Interpersonal Skills	3.81	Somewhat True	High Leadership Skills
Administrative Skills	3.51	Somewhat True	High Leadership Skills
Conceptual Skills	3.44	Occasionally True	High Leadership Skills
<b>Overall Mean</b>	<b>3.59</b>	<b>Somewhat True</b>	<b>High Leadership Skills</b>

### Level of Student's Social Skills

Table 2. Summary of the Student's Level of Social Skills

Dimensions	Mean	Descriptive Rating	Qualitative Interpretation
Clarifying	3.96	Often	High Social Skills
Complimenting	3.91	Often	High Social Skills
Listening	3.91	Often	High Social Skills
Problem-Solving	3.63	Often	High Social Skills
<b>Overall Mean</b>	<b>3.86</b>	<b>Often</b>	<b>High Social Skills</b>

Table 2 presents the summary of the student's level of Social skills. This variable consists of four (4) constructs namely: listening, complimenting, clarifying, and problem-solving. The result of all the constructs has obtained an overall rating of "Often" indicating a "High Social Skills". Based on the result of the table, the overall mean is 3.86. This implies that 1st-year BSE Sciences students often have high social skills in terms of listening, complimenting, clarifying, and problem-solving. The result conforms to the study of [12] which stipulated that social skills are essential in collaborative learning as students develop and maintain positive interactions with others, as well as pay attention to the person who is communicating

which makes them active listeners, and they perceived conflict resolution in which they find a workable solution to any problem arise.

Table 3. Summary of the Students' Level of Decision-Making Skills

Dimensions	Mean	Descriptive Rating	Qualitative Interpretation
Vigilance	3.95	Agree	High Decision Making Skills
Hypervigilance	3.59	Agree	High Decision Making Skills
Procrastination	2.88	Neutral	Moderate Decision Making Skills
Buck-Passing	2.85	Neutral	Moderate Decision Making Skills
<b>Overall Mean</b>	<b>3.32</b>	<b>Neutral</b>	<b>Moderate Decision Making Skills</b>

Correlation Analysis Showing the Significant Relationship Between Students' Leadership Skills, Social Skills and Decision- making Skills

Table 4. Correlation Analysis shows the significant relationship between the independent variables and dependent variables.

Independent Variables	Correlation Coefficient	Significance
Social Skills	.684**	.000
Listening	.524**	.000
Complimenting	.502**	.000
Clarifying	.661**	.000
Problem-Solving	.517**	.000
Decision-Making Skills	-.127	.271NS
Vigilance	.553**	.000
Buck-passing	-.343**	.002
Procrastination	-.364**	.001
Hypervigilance	.018	.878NS

Legend:

\*\*Correlation is significant at the 0.01 level (2-tailed)

\*Correlation is significant at the 0.05 level (2-tailed)

NS- not significant

As can be gleaned, the result revealed that the variable social skills including its constructs are found to have a positive relationship with students' leadership skills. The social skills comprise a correlation coefficient of .648\*\* and a p-value of .000. The constructs listening, complimenting, clarifying, and problem-solving which has a correlation coefficient of .524\*\*, .502\*\*, .661\*\*, and .517\*\* respectively, and all of them have a p-value of .000. This implies that social skills and leadership skills interrelated. This is true to the idea of [12], which states that in a collaborative learning environment social skills were manifested as students were able to experience interaction with their peers through sharing their ideas, and knowledge as well as being given an opportunity to present their ideas into a group which improves their skills in leadership. In addition, [15] emphasizes listening which is one the fuel of social skills, the most effective method for leaders to be successful.

The decision-making variable overall found no significance with leadership skills which only have a correlation coefficient of .127 and a p-value of .271. However, all of its sub-variables except hypervigilance are found to be significant. Vigilance has a correlation coefficient of

.553\*\* and a p-value of .000 which implies a positive relationship between leadership skills. Meanwhile, the sub-variable buck-passing and procrastination have a negative correlation between leadership skills having a correlation coefficient of -.343\*\* and -.364\*\* respectively, and a p-value of .002 and .001 accordingly.

Not all leaders are decision-makers as there are different leadership styles, this was true of laissez-faire leaders in which leaders give members as much flexibility as possible and offer little to no direction, transferring all decision-making and problem-solving responsibility to the team members. On a contrary, leaders should be vigilant in decision-making in which according to Janis and Mann's (1977) construct of vigilance, a leader must be a decision-maker who clearly states goals, weighs alternatives, assesses repercussions, and determines how to implement selected solutions [16]. In addition, [17] states that great leaders don't pass the buck, a leader is willing to take the responsibility for the decisions and actions they made. They must be accountable for the mistakes made by the team. This shows that they are acknowledging their own mistakes and learning from them. Moreover, a leader must be proactive and not procrastinate in decision-making as procrastinating leaders will have a detrimental impact on the organization at all levels and foster a status quo mentality. They encourage other employees and members of their team to think in a way that maintains the status quo. In fact, leaders who postpone decisions or necessary steps typically have lower success rates [18].

## CONCLUSION

The following conclusions were drawn based on the findings of the study:

The students' level of leadership skills exposed to a collaborative learning environment in the Inorganic Chemistry laboratory was found to be high obtaining an overall mean of 3.59, proving that exposing students to a collaborative learning environment develops their leadership skills.

In addition, the result in social skills found that level of student's social skills exposed to a collaborative learning environment is significantly high with an overall mean of 3.59 indicating that 1st- year BSE Sciences students in terms of listening, complimenting, clarifying, and problem-solving have high social skills.

The level of students' decision-making skills towards collaborative learning in Inorganic Chemistry in terms of vigilance, buck-passing, procrastination, and hypervigilance was neutral obtaining an overall mean of 3.32 signifies that they are moderate in decision-making skills.

Only the student's leadership skills and social skills have a significantly relationship. It means that in a collaborative learning environment, leadership skills are well developed when you have high social skills. On the other hand, decision-making skills were found to have no significant relationship with leadership skills, however, some of its sub-constructs have a significant negative relationship. Therefore, H01 has been rejected and H02 has been accepted.

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## RECOMMENDATIONS

The following recommendations are hereby drawn from the research investigation:

In the collaborative learning environment of the Inorganic Chemistry Laboratory, students exhibit strong leadership skills. To further develop or strengthen leadership skills, students may join different organizations such as leadership training, Youth for Christ organization, and student organizations or simply being a volunteer. Teachers and facilitators may also use activities that will help students to come out of their comfort zone such as giving them chances to become a leader in a small group activity.

Based on the result of students' level of social skills among 1st-year BSE Sciences students, the level of their social skills was significantly high. Thus, in order to maintain this level, teachers and administrators may expose students to other environments or make activities outside the four corners of the classroom such as team-building activities, seminars, and programs that help students engage, communicate, and interact with different kinds of people.

The results show that the level of students' decision-making skills was moderate. Thus, teachers and administrators may conduct research on how they are going to improve the student's decision-making skills. Teachers may use different teaching strategies that will help students to improve their skills in decision-making.

Teachers and facilitators of teaching and learning encourage to develop 21st-century skills of students such as leadership skills, social skills, and decision-making skills as these skills are very important in competing in the contemporary world.

Future researchers may use multiple regression analysis to determine which variable is best suited, which factors can be ignored and how these factors enhance each other, and/or which independent variables are known to predict the value of a single dependent variable. We also suggest that you may further study other skills in the 21st century aside from leadership skills, social skills, and decision-making skills.

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