

Learning Style Preferences in Learning Social Science Among Grade 12 Senior High School Students of Sulu College of Technology (SCT)

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Abstract. The study identified learning style preferences in learning social science among Grade 12 Senior High School students with specialization in Humanities in Social Science strand of Sulu College of Technology Incorporated. The study assessed the extent of students' attitudes toward social science in terms of auditory, kinesthetic, group learning, and individual learning. It also determined the significant differences in learning style preferences when grouped according to gender, section, parents' highest educational attainment, and parents' average monthly income. Furthermore, the study examined the significant correlation among the subcategories of learning bright style preferences. Descriptive-correlational study was conducted among 100 students through simple random sampling from School Year 2025–2026. Instruments gauged the level of agreement of students about their attitude towards learning social science whether they prefer auditory, kinesthetic, group learning, and individual learning. Results revealed that majority of the respondents were females and were almost evenly distributed according to their section. Students whose parents with the highest educational attainment as college graduate and whose family can receive 20,001 pesos and above per month were also the predominant. Learners agree with their attitude towards auditory, kinesthetic learning, and individual learning. There was moderate level of agreement with group learning. Learners' preferences did not significantly differ when grouped according to their gender, section, parents' highest educational attainment, and parents' monthly income. Findings of the study revealed that there is a statistically significant positive correlation between auditory learning and kinesthetic learning, auditory learning and group learning, kinesthetic learning and group learning. The rest of the combinations of variables are not significantly correlated. Teachers are advised to use different strategies in delivering lessons which can incorporate auditory learning, kinesthetic learning, collaborative learning, and independent learning. Administrators can also provide seminars and trainings that would promote learner-centered and multimodal approach in teaching.

Introduction

Learning style preferences play a vital role in student academic performance and attitudes towards social science in which it helps the students to enhance their learning in understanding the importance of Social Science. Therefore, the goal of this research was to explore various of Grade 12 senior high student of SCT in learning social science. Learners' academic performance and attitudes toward social science were greatly affected by their preferred learning styles. The main goal of social science education is to help students better understand people, societies, and institutions. However, learning styles may affect how well they do and understand the social science concept and how much they participated inside the class. How students comprehend and analyze information significantly influences their academic performance and attitudes towards social science. Some studies have shown that students have different and unique ways of learning, which can be grouped into sensory modalities such as visual, auditory, reading/writing, and kinesthetic learning. Additionally, De Guzman (2016) contended that a teacher's capacity to recognize and accommodate each student's unique learning style is crucial to the success of social science education. According to his research, adaptive instruction not just enhanced students' academic performance but also fosters their active engagement and critical

thinking. According to Santibanes -Salgado et al. (2025), learning outcomes were improved for students with multimodal and kinesthetic preferences, highlighting the significance of accommodating various styles.

Research conducted in Ghana (2019) and Turkey (2018) also showed that while avoidant learning styles or incompatibility between teaching methods and how students learn and applied their preferred learning styles could affect learning, participative and visual learning styles were linked to better academic performance. In a similar vein, Delos Santos and Ramos (2020) investigated the connection between social studies academic achievement and learning styles among Laguna students in Grade 11. According to their findings, students who were conscious of their preferred learning styles demonstrated increased levels of engagement and enhanced academic performance, indicating that self-awareness of learning preferences leads to better learning outcomes. Marquez (2021) investigated the learning preferences of the strand students from (Humanities in Social Sciences) in a Davao City private school. In relation to their research, visual learners performed well on written tests, while auditory learners gained the most from class discussions. To be able to meet different kinds of educational requirements and necessities in social science classes, Marquez stressed the significance of differentiated instruction. Tomas, 2024; Almazan (2024) These studies' main recommendations are as follows: (1) using diagnostic tools like VARK or Kolb assessments to determine students' learning preferences; (2) integrating multimodal activities into social science instruction, such as debates, simulations, timelines, and visual organizers; and (3) monitoring changes in student achievement after these interventions, since effectiveness may vary by context and implementation. Magulod, 2019; Sison, 2022; Lajera, 2023; Tomas, 2024; Almazan, 2024) These results offer useful, local evidence for developing instructional strategies that incorporate learning-style assessment and multimodal approaches in social science education. Meshanu and Esia-Donkor (2023), junior high school students in Ghana frequently employed a various styles of learning strategies, with the independent style considered as the most prevalent, and these preferences create an impact on their compete in knowing social studies. Shahzadi, Ahmad Shah, and Fatima (2020) found that postgraduate social science students preferred auditory learning, which was associated with improved academic performance.

According to a study by Clavido and Macalisang (2024), contextual elements like teaching style, cognitive ability, and socioeconomic or demographic backgrounds also show up as important moderators. On teaching-learning style alignment discovered that when a teacher's approach takes into account the learning preferences of their students, academic performance improves. Another study by Escabusa & Luzano (2024) among IP learners demonstrated that effective strategies must be culturally sensitive and that learning styles may differ within marginalized communities. Gamiao (2021); Moneva, Arnado, & Buot (2020). While learning styles by themselves might not ensure better performance, when paired with motivation and good study habits, they can lead to better results, according to studies conducted with freshmen and senior high school students.

Therefore, the goal of this research was to explore various of Grade 12 senior high student of SCT in learning social science. These anchored directly with SDG 4, Good Quality Education that aimed to ensure inclusive and equitable quality education and promote lifelong learning opportunities for all (United Nations, 2015). Through identifying the diverse learning style preferences of learners, the research has a huge contribution in inclusive and equitable education, preparing students to learn on their own learning style preferences and ensuring that teaching strategies and technique may be used and tailored to basically meet the demands of the pupils. Understanding various and diverse learning style preferences helped the educators to mold and create student centered approaches that foster participation, enhance in academic outcomes and prepare learners for higher education and future employment. Furthermore, the study also indirectly supported SDG 10: Reduced Inequalities, that aimed to address the diverse learning that need to ensure that no students is left behind due to their differences and how they process the information. Lastly, this study also supports SDG 8: One of its goals is to support and foster quality jobs to reduce the percentage of unemployment and create sustainable development livelihood with full assistance, support with productive and competitive employment and decent work for everyone. It also emphasized to create better opportunities to everyone to have a fair job, safe, and labor rights, and to make sure economic progress and development benefits to both.

Research Questions:

The researcher identified the difficulties students encounter in learning the English language in Talipao National High School - Main. Specifically, this study answered the questions below.

Specifically, this study sought to answered the questions:

1. What is the demographic profile of the respondents in terms of:
 - a. Gender;
 - b. Section;
 - c. Highest Educational attainment, and
 - d. Parents average monthly income?

2. What is the extent of student's attitudes towards social science in the case of senior high school students in SCT terms of:
 - a. Auditory;
 - b. Kinesthetic;
 - c. Group Learning, and
 - d. Individual Learning?
3. Is there a significant difference in the Learning Style Preferences of student's attitude towards social science among senior high school students at Sulu College of Technology (SCT) when grouped according to their demographic profiles concerning:
 - a. Genders;
 - b. Year Level;
 - c. Parent's highest educational attainment, and
 - d. Parent's average monthly income?
4. Is there a significant correlation among the sub categories subsumed under learning style preferences and its relationship to students' attitude towards social science?

Methodology

Within this chapter, details were provided of the research design, research location, research participants, sampling design, data collection method, research instrument, validity and reliability, statistical analysis of the data collected, and ethical considerations.

Research Design

Descriptive-correlational design method was applied in this study. Cresswell (2014), research design involves selecting a research approach, identifying a population, and determining data collection and analysis methods. Moreover, Kumar (2019) Research design was the blueprint for the collection, measurement, and analysis of data, created to answer the research questions and test the hypotheses. Thus, this study described quantified, and inferred also discovered distinction and relationship among the two variables and to predict the future events from current knowledge or phenomenon of students of Social Science at selected HUMSS student in Sulu College of Technology.

Research Locale

The students of different section under the HUMSS Strand were the participants of this study who are currently enrolled during 2025-2026 despite the respondent's marital status, religious preference and faith tradition, ethnicities, and place of origin. The study was conducted at Sulu College of Technology, Inc. A private higher institution located in Jolo, Sulu. This Institution was under Private Education Assistance Committee (PEAC). This institution offered basic and tertiary education programs. SCT, Inc. was selected as the locale due to its unique context in Sulu Province.

Respondents of the Study

The respondents were randomly chosen from different section of Grade 12 HUMSS students of Sulu College of Technology School Year 2025-2026. The total representative of one hundred (100) samples were chosen based on the availability of the HUMSS students.

Distribution of the target Samples among students of HUMSS Strand at Sulu College of Technology, Inc (Tanjung Extension).

	HUMSS Students at selected Section	Frequency
1.	HUMSS 12- Aristotle	10
2.	HUMSS12-Socrates	9
3	HUMSS 12 -Plato	9
4.	HUMSS 12- Confucius	8
5.	HUMSS 12-Foucault	9
6.	HUMSS 12-Emerson	9
7.	HUMSS 12-Dewey	9

8.	HUMSS 12-Karl Marx	9
9.	HUMSS 12-Hereclitus	9
10	HUMSS 12-Jhon Locke	9
11	HUMSS 12-Immanuel	10
Total		100

Figure 1. Below shows the distribution of the respondents of the study

Sampling Design

The simple random method was used to ensure that the respondents were directly relevant to the research objectives and adequately represented the target population.

Data Gathering Procedure

Before the research was conducted, the following guidelines was adopted through the process of data gathering, permission to conduct study was sought from the school administration of Sulu College of Technology, Inc. The checklist-questionnaires were personally launched, administered, and retrieved by the researcher. Surveys were distributed to the selected students, and the collected data was tabulated and analyzed using appropriate statistical methods. This approach ensured proper authorization, systematic data collection, and accurate data processing for the study.

The respondents were assured that their responses would be kept confidential and that they could withdraw at any time. After completing the task, the questionnaire was gathered and reviewed for completeness accuracy before the statistical analysis. After the completion of components, Descriptive and inferential statistical tools was appropriately adopted in the treatment of data that was gathered for this study.

Research Instrument

The primary tool used in the study for data gathering were a checklist-survey questionnaire for quantitative approach. The checklist-questionnaires were personally launched, administered, and retrieved by the researcher. Surveys were distributed to the selected students, and the collected data was tabulated and analyzed using appropriate statistical methods. This approach ensured proper authorization, systematic data collection, and accurate data processing for the study. The survey questionnaire consisted of two parts. The first part deals with the respondent's demographic profile such as gender, Age, Parent's Educational Attainment, Parent's Average Monthly Income and year level. The second part deals in obtaining data on the extent of learning preferences such as auditory, kinesthetic learning, group learning, individual learning. Each question used a five-point Likert- scale, allowing the respondents to indicate the degree of their agreement.

Before administering the questionnaire, experts validated and ensured the reliability of the tool. Two experts validated the questionnaire, they validated the questionnaire for the purpose of content validity, the feedback was used in finalizing the questionnaire. For the quantitative study, checklist- survey questionnaire was designed to determine the learning style preferences of the students.

Validity and Reliability

This study utilized checklist-questionnaires of the study). With that, it did not need for revalidation and retesting for the reliability. But still, it was checked by the panel experts and the adviser.

Statistical Treatment of Data

The data gathered from the study was processed, analyzed and interpreted using the descriptive and inferential statistics through the use of SPSS version 17, Descriptive statistics such as frequency, percentage, and median were employed to describe the demographic profile of the respondents to indicate the extent to which learning style preferences influenced students' academic performance towards social science. The five- point Likert scale was employed to measure the extent to which the respondents felt effect of learning style preferences of each statement.

Ethical Considerations

The researcher adhered to all the ethical standards for research involving human subjects. Before gathering data. Ethical considerations are important insuring the reliabilities and validities of this research. The data collection, analysis, and interpretation adhered to established ethical standards, ensuring the protection of participant's right and integrity of the study. Specifically, the following ethical principles were observed: Participants were given a chance to informed and get consent form while explaining the purpose, risk, and benefits of the study. The consent form was written in English to ensure participants understand the information. Participants were required to sign the consent form before participating in the study. All information collected was kept confidential and was disclosed to anyone and remain anonymous.

Results and Discussion

This presented, analyzed, and interpreted the results based on the data gathered in this study.

1.1 In terms of Gender

Table 1.1 presented the demographic profile of the Grade 12 Senior High School student respondents under the HUMSS strand at Sulu College of Technology (SCT), Inc. in terms of gender. The data showed that out of 100 respondents, 51 students (51.0%) were female, while 49 students (49.0%) are male. It indicates that most of the grade 12 respondents were females, comprising slightly more than half of the total sample, whereas male students represent a slightly smaller proportion of the respondents

Gender	Number of respondents	Percent
Male	49	49.0%
Female	51	51%
Total	100	100 %

Table 1.1. Summary of the Demographic profile of the respondents

Table 1.1. Demographic Profile of Grade 12 Senior High School Students under HUMSS Strand at Sulu College of Technology, Inc. with regards to their Gender

1.2 In terms of Section

Table 1.2 presents the demographic profile of the Grade 12 Senior High School student respondents under the HUMSS strand at Sulu College of Technology, Inc. in terms of section. The data show that out of 100 respondents, 10 students (10.0%) are from Aristotle and another 10 students (10.0%) are from Immanuel. Meanwhile, 9 students (9.0%) each are from the sections Socrates, Plato, Emerson, Dewey, Karl Marx, Hereclitus, Jhon Locke, and Foucault. The section Confucius has 8 students (8.0%). This indicates that the respondents are almost evenly distributed across the different sections, with only slight variations in the number of students represented in each section.

Section	Number of respondents	Percent
Aristotle	10	10.0%
Socrates	9	9.0%
Plato	9	9.0%
Confucius	8	8.0%
Immanuel	10	10.0%
Emerson	9	9.0%
Dewey	9	9.0%
Karl Marx	9	9.0%
Hereclitus	9	9.0%
Jhon Locke	9	9.0%
Foucault	9	9.0%
Total	100	100%

Table 1.2 Demographic Profile of Grade 12 Senior High School Students under HUMSS Strand at Sulu College of Technology, Inc. in Terms of Section

1.3 In terms of Parents Highest Educational level of Attainment

Table 1.3 presented the Grade 12 Senior High School student demographic profile were respondents under the HUMSS strand at Sulu College of Technology, Inc. in relation of parents' highest educational attainment. The data show that out of 100 respondents, 33 students (33.0%) have parents who are college graduates, while 29 students (29.0%) have parents who attained elementary education. Meanwhile, 25 students (25.0%) have parents who are high school graduates, 10 students (10.0%) parents with no formal education, only 3 students (3.0%) parents who achieved the Advanced Degree. This signifies that 'mostly of the respondents' parents were college graduates, while only a small proportion have attained postgraduate education.

Parents' Highest Educational Attainment	Number of respondents	Percents
No formal education	10	10.0%
Elementary education	29	29.0%
High school graduate	25	25.0%
College graduate	33	33.0%
Master degree	3	3.0%
Totals	100	100%

Table 1.3 Demographic Profile of Grade 12 Senior High School Students under HUMSS Strand at Sulu College of Technology, Inc. When classify in relation to Parents' Highest Educational level

1.4 In terms of Parents Monthly Income

Table 1.4 presents the demographic profile of the Grade 12 Senior High School student respondents under the HUMSS strand at Sulu College of Technology, Inc. in terms of parents' average monthly income. The data gathered display the result which show that out of 100 respondents, 38 students (38%) have parents with an average monthly income of 20,001 pesos and above, while 37 students (37.0%) have parents earning 1,500 pesos and below. Meanwhile, 13 students (13.0%) have parents with a monthly income ranging from 10,001 to 15,000 pesos, 9 students (9%) have parents earning between 15,001 and 20,000 pesos, and only 3 students (3.0%) have parents with a monthly income ranging from 5,001 to 10,000 pesos. This indicates that the largest proportion of respondents comes from families who earned worth of 20,001 pesos and above, while the smallest proportion belongs to the income group of 5,001 to 10,000 pesos.

Parents Average Monthly Income	Number of respondents	Percent
1,500 pesos and below	37	37.0%
5,001 - 10,000 pesos	3	3.0%
10,001 - 15,000 pesos	13	13.0%
15,001 - 20,000 pesos	9	9.0%
20,001 pesos and above	38	38.0%
Totals	100	100%

Table 1.4 Demographic Profiles of Grade 12 Senior High School Students under HUMSS Strand at Sulu College of Technology, Inc. when classified through f Parents Monthly Income

2.1 According to Auditory

Table 2.1 presents the extent of students' attitudes toward social science among Senior High School students at Sulu College of Technology, Inc. in the context of auditory learning. The results show a weighted mean of 3.8500 with a standard deviation of 0.47514, which corresponds overall ratings of Agree. This indicates that the respondents generally prefer learning social science through listening activities such as lectures, verbal explanations, and oral instructions provided by the teacher.

Among the indicators, the highest mean score is observed for the statement "when instructor gave me a lecture, I learned better in class" ($\bar{x} = 4.23$), followed by "I understand better, When the teacher tells me the directions." ($\bar{x} = 4.19$) and "I learn better, when someone tells me how to do something inside the class" ($\bar{x} = 3.87$), all interpreted as Agree. These revealed and suggest that students tend to understand social science lessons more effectively when teachers provide clear verbal

explanations and guidance during classroom instruction. Meanwhile, slightly lower mean scores are noted for “I remembered things I heard in class than things I read” ($\bar{x} = 3.53$), interpreted as Agree, and “when I listened to someone I learn better in class” ($\bar{x} = 3.43$), interpreted as Moderately Agree, indicating that although students generally favor auditory learning, some learners may still rely on other learning approaches.

The results imply that auditory learning plays an important role in helping students comprehend social science concepts. This finding is supported by Shahzadi, Ahmad Shah, and Fatima (2020), who reported that auditory learning is a dominant preference among students and contributes to improved academic engagement

	Research Questions	Means	S.D	Ratings
1	I understand better, When the teacher tells me the instructions.	4.19	.692	Agree
2	when the instructor gave a lecture, I learned better in class.	4.23	.839	Agree
3	I learn better When someone tells me how to do something in class.	3.87	.787	Agree
4	I remember things I have heard in class than things I have read	3.53	.858	Agree
5	when I listened to someone, I learn better in class	3.43	.946	Moderately Agreed
Total Weighted Mean		3.8500	.47514	Agree

Legend: (5) 4.50-5.00=Strongly Agree; (4) 3.50-4.49=Agree; (3) 2.50- 3.49=Moderately Agreed; (2) 1.50- 2.49=Disagree; (1) 1.00-1.49=Strongly Disagree

Table 2.1 Extent of Student's Attitudes Towards Social Science in the Case of Senior High School Students at SCT based on their Auditory

2.2 In terms of Kinesthetic Learning

In this table, it presents the scope and range of students' attitudes toward social science among Senior High School students at Sulu College of Technology (SCT) , Inc. in the context of kinesthetic learning. The results show a weighted mean of 3.8520 with a standard deviation of 0.51532, which corresponds to an overall rating of Agree. This indicates that the respondents generally prefer learning social science through hands-on activities, participation, and experiential tasks in the classroom. Among the indicators, the highest mean score is observed for the statement when I participated related in some activities I learn best in class” ($\bar{x} = 4.17$), followed by “By doing experiments I enjoy learning in class” ($\bar{x} = 3.98$) and “when participating in role-playing, I understand things better inside the class” ($\bar{x} = 3.87$), all interpreted as Agree. The findings suggest that students tend to understand social science lessons more effectively when they are actively involved in classroom activities that allow them to apply concepts through participation and practical engagement. Meanwhile, slightly lower but still agreeable mean scores are observed for “When I do many things in class, I learned better” ($\bar{x} = 3.74$) and “I prefer to learn by doing something in class” ($\bar{x} = 3.50$), indicating that students value active participation as part of their learning experience.

The results imply that kinesthetic learning strategies contribute positively to students' understanding of social science concepts. This finding supports the work of Kolb (2015), who emphasized that learning occurs effectively when students engage in experiential activities and active experimentation. Similarly, Santibanes-Salgado et al. (2025) noted that students with kinesthetic or activity-based learning preferences tend to demonstrate improved learning outcomes when instruction incorporates interactive and participatory tasks.

	Statements	Mean	S.D	Rating
1.	when I'm engaging related in some activities, I learn best in class.	4.17	.697	Agree
2.	By executing experiments, I enjoy learning in class.	3.98	.738	Agree
3.	when I collaborate in drama series, I understand things better in class.	3.87	.800	Agree
4.	When I do things in class, I learn better	3.74	.906	Agree
5.	I prefer to learn by doing something in class.	3.50	.893	Agree
Total Weighted Mean		3.8520	.51532	Agree

Legend: (5) 4.50-5.00=Strongly Agree; (4) 3.50-4.49=Agree; (3) 2.50- 3.49=Moderately Agreed; (2) 1.50- 2.49=Disagree; (1) 1.00-1.49=Strongly Disagree

Table 2.2 Extent of Student's Attitudes Towards Social Science in the Case of Senior High School Students at SCT with regards to Kinesthetic

2.3 In the context of Group Learning

Table 2.3 presents the extent of students' attitudes toward social science among Senior High School students at Sulu College of Technology, Inc. in the context of group learning. The results show a total weighted mean of 3.4620 with a standard deviation of 0.61870, which corresponds to an overall rating of Moderately Agree. This indicates that the respondents somewhat prefer learning social science through collaborative activities and interaction with classmates.

Among the indicators, the highest mean score is observed for the statement "I learned more when I study with group" ($\bar{x}$ = 3.60), followed by "I enjoy doing on assignments with two or three classmates" ($\bar{x}$ = 3.54) and "I get more works done when I work with others" ($\bar{x}$ = 3.50), all interpreted as Agree. The findings of the study, suggest that students recognized the importance of collaboration in completing academic tasks and understanding social science concepts. Meanwhile, slightly lower mean scores are noted for "I easily learn when I am with the group discussion" ($\bar{x}$ = 3.50), interpreted as Agree, and "I prefer to study with others" ($\bar{x}$ = 3.17), interpreted as Moderately Agree, indicating that although students acknowledge the benefits of group learning, some may still prefer independent learning approaches.

The results imply that collaborative learning plays a supportive role in enhancing students' understanding of social science lessons. This finding aligns with the work of Ramos (2018), who emphasized that interactive and cooperative learning strategies such as discussions and group activities help develop students' analytical thinking and deeper understanding of social issues. Similarly, Magulod (2019) reported that Filipino students often demonstrate a preference for group-based learning activities, which can enhance engagement and academic performance when incorporated into classroom instruction.

	Statements	Mean	S.D	Rating
1.	I learn more when I study with a group.	3.60	.932	Agree
2.	I enjoy working on assignments with two or three classmates.	3.54	.926	Agree
3.	I get more work done when I work with others.	3.50	.927	Agree
4.	I prefer to study with others.	3.17	.865	Moderately Agree
5.	I easily learn when I am with the group discussion.	3.50	.916	Agree
Total Weighted Mean		3.4620	.61870	Moderately Agree

Legends: (5) 4.50-5.00=Strongly Agree; (4) 3.50-4.49=Agree; (3) 2.50- 3.49=Moderately Agree; (2) 1.50- 2.49=Disagree; (1) 1.00-1.49=Strongly Disagree

Table 2.3 Extent of Student's Attitudes Towards Social Science in the Case of Senior High School Students at SCT classified as a Group Learning

2.4 In the context of Individual Learning

Table 2.4 Presents the students' attitudes toward social science among Senior High School students at Sulu College of Technology, Inc. in the context of individual learning. The results show a total weighted mean of 3.9600 with a standard deviation of 0.52877, which corresponds to an overall rating of Agree. This indicates that the respondents generally prefer learning social science independently through self-directed study and individual work.

Among the indicators, the highest mean score is observed for the statement "When I study alone, I remembered things better" ($\bar{x}$ = 4.22), followed by "When I worked alone, I learned better" ($\bar{x}$ = 4.02) and "I preferred to work by myself" ($\bar{x}$ = 3.96), all interpreted as Agree. These findings suggest that many students feel more comfortable and productive when completing tasks independently, allowing them to concentrate and process information at their own pace. Meanwhile, slightly lower but still agreeable mean scores are noted for "In class, I worked better when I worked alone" ($\bar{x}$ = 3.81) and "I prefer working on projects by myself" ($\bar{x}$ = 3.79), indicating that while students value collaboration, they also recognize the benefits of independent learning.

The results imply that individual learning plays an important role in helping students understand social science concepts. This finding supports the observation of Thomas Edison State College (2014), which noted that studying alone helps minimize distractions, improves concentration, and allows learners to progress at their own pace.

Statements	Mean	S.D	Rating
1. When I study alone, I remember things better.	4.22	.760	Agree
2. When I work alone, I learn better	4.02	.791	Agree
3. I prefer to work by myself.	3.96	.852	Agree
4. I prefer working on projects by myself.	3.79	.844	Agree
5. In class, I work better when I work alone.	3.81	.825	Agreed
Total Weighted Mean	3.9600	.52877	Agreed

Legend: (5) 4.50-5.00=Strongly Agree; (4) 3.50-4.49=Agree; (3) 2.50- 3.49=Moderately Agree; (2) 1.50- 2.49=Disagree; (1) 1.00-1.49=Strongly Disagree

Table 2.4 Extent of Student's Attitudes Towards Social Science in the Case of Senior High School Students at SCT in Terms of Individual Learning

3.1 According to Gender

In this table 3.1 presents the difference in the learning style preferences of students' attitudes toward social science among Senior High School students at Sulu College of Technology (SCT) when the data are grouped according to gender. The table shows the computed t-values and corresponding significance (Sig.) values for the four domains, namely auditory, kinesthetic, group learning, and individual learning.

For auditory learning style, result as 0.229 computed t-value with a significance of 0.819, which is greater than 0.05 level of significance. This indicates that there is no significant difference in the auditory learning style preferences of students when grouped according to gender.

In terms of kinesthetic learning style, t-statistic is 0.175 with a significance value of 0.862, is also higher than the 0.05 level of significance. This result revealed that there is no significant difference in kinesthetic learning style preferences when students are grouped according to gender.

For group learning style, the t-statistic is -0.528 with a significance value of 0.599, is higher than the 0.05. This indicates that there is no significant difference in group learning preferences when students are grouped according to gender.

Similarly, for individual learning style, the total t-value is -1.31 with a significance value of 0.195, which is considered as greater than 0.05. This suggests that there is no significant difference in individual learning preferences when learners were cluster according to gender.

The findings reveal that gender does not significantly affect and influence the learning modes of students' attitudes toward social science across the domains of auditory, kinesthetic, group learning, and individual learning. Thus, statistical hypothesis stated in relations to the findings that "There is no significant difference in the learning style preferences in learning social science among Grade 12 senior high school students in Sulu College of Technology (SCT) are categorized with regards to their genders" is "approved and accepted"

Variables	Grouping	Mean	S.D	Mean Difference	T	Sig.	Description
Auditory	Male	3.861	.5357	.02201	.229	.819	Not Significant
	Female	3.839	.4138				
Kinesthetic	Male	3.861	.5247	.01809	.175	.862	Not Significant
	Female	3.843	.5112				
Group Learning	Male	3.429	.5972	-.06555	-.528	.599	Not Significant
	Female	3.494	.6429				
Individual Learning	Male	3.890	.5308	-1.3766	-1.31	.195	Not Significant
	Female	4.027	.5231				

Legendary: Significant at alpha 0.05

Table 3.1 Difference in the Learning Style Preferences of Student's Attitude Towards Social Science between Senior High School Students at Sulu College of Technology (SCT) When Grouped According to their Demographic Profiles in Terms of Gender

3.2 According to Section

Table 3.2 presents the differences in the learning style preferences of students' attitudes toward social science among Senior High School students at Sulu College of Technology (SCT) when the data are grouped according to section. The table shows the computed F-values and corresponding significance (Sig.) values for the four domains, namely auditory, kinesthetic, group learning, and individual learning.

For auditory learning style, 0.812 value computed with a significance value of 0.618, which is greater than the 0.05 level of significance. This indicates that there is no significant difference in the auditory learning style preferences of students when grouped according to section.

In terms of kinesthetic learning style, 0.744 is the calculated F-value with a significance value of 0.682, which is also greater than the 0.05 level of significance. This result shows that there is no significant difference in kinesthetic learning style preferences when students are grouped according to section.

For group learning style, the calculated F-value is 2.09 with a significance value of 0.034, which is less than the 0.05 significance. This indicates that there is a significant difference in group learning preferences when students are grouped according to section.

Lastly, for individual learning style, the F-ratio is 0.765 with a significance value of 0.662, which is higher than 0.05. This suggests that there is no significant difference in individual learning preferences when learners are sub grouped according to section.

The findings reveal that section does not significantly affect the learning modalities of students' attitudes toward social science in the domains of auditory, kinesthetic, and individual learning. However, a significant difference was found in the domain of group learning. Therefore, generally, hypothesis stated that "There is no significant difference in the learning style preferences in learning social science among Grade 12 senior high school students in Sulu College of Technology (SCT) when data collected were classify according to their section" is accepted.

Sources of Variation		Sum of squares	Df	Mean Square	F	Sig.	Description
Auditory	Between Groups	1.868	10	.187	.812	.618	Not Significant
	Within Groups	20.48	89	.230			
	Total	22.35	99				
Kinesthetic	Between Groups	2.027	10	.203	.744	.682	Not Significant
	Within Groups	24.263	89	.273			
	Total	26.290	99				
Group Learning	Between Groups	7.196	10	.720	2.09*	.034	Significant
	Within Groups	30.700	89	.345			
	Total	37.896	99				
Individual Learning	Between Groups	2.191	10	.219	.765	.662	Not Significant
	Within Groups	25.489	89	.286			
	Total	27.680	99				

Legends. * Significant at alpha 0.05

Table 3.2 Difference in the Learning Style Preferences of Student's Attitude Towards Social Science Among Senior High School Students at Sulu College of Technology (SCT) When Grouped According to their Demographic Profiles in Terms of Section

3.3 According to Parents Highest Educational Attainment

This presents the differences in the learning style preferences of students' attitudes toward social science among Senior High School students at Sulu College of Technology (SCT) when information was classified according to parents' highest academic attainment. The table shows the F statistic -value and corresponding significance (Sig.) values for the four domains, namely auditory, kinesthetic, group learning, and individual learning.

For auditory learning style, the ratio of mean square is 1.218 with a significance of 0.308, which 0.05 level of significance is considered as greater than the computed value. It shows that auditory learning style preferences of students when grouped according to parents' highest educational attainment. has no significant difference

In terms of kinesthetic learning style, the computed F-value is 1.388 with a significance value of 0.244, which is consider as higher than 0.05 level of significance. The result of this simply showed that “there is no significant difference in kinesthetic learning style preferences when students are grouped according to parents’ highest educational attainment.

For group learning style, computed F-value is 2.88 with a significance value of 0.027, which is less than the 0.05 level of significance. In this table, it present that there is a significant difference in group learning preferences when they are grouped according to their parents’ highest educational attainment.

Lastly, for individual learning style, the statistic F-value is 1.886 with a significance value of 0.119, is higher compared to 0.05. This suggests that there is no significant difference in individual learning preferences when students are grouped according to parents’ highest academic achievement The findings reveal that parent’s highest attainment in education does not significantly influence the learning style preferences of students’ attitudes toward social science in the domains of auditory, kinesthetic, and individual learning. However, a significant difference was found in the domain of group learning. Therefore, generally, the null hypothesis stating that There is no significant difference in the learning style preferences in learning social science among Grade 12 senior high school students in Sulu College of Technology (SCT) when categorized according to their parents’ highest attainment is accepted.

Sources of Variation		Total of squares	df	Mean Square	F	Sig.	Description
Auditory	Between Groups	1.090	4	.273	1.218	.308	Not Significant
	Within Groups	21.26	95	.224			
	Total	22.35	99				
Kinesthetic	Between Groups	1.452	4	.363	1.388	.244	Not Significant
	Within Groups	24.838	95	.261			
	Total	26.290	99				
Group Learning	Between Groups	4.103	4	1.026	2.88*	.027	Significant
	Within Groups	33.793	95	.356			
	Total	37.896	99				
Individual Learning	Between Groups	2.036	4	.509	1.886	.119	Not Significant
	Within Groups	25.644	95	.270			
	Total	27.680	99				

Note. * Significant at alpha 0.05

Table 3.3 Difference in the Learning Style Preferences of Students Attitude Towards Social Science Among Senior High School Students at Sulu College of Technology (SCT) When Grouped According to their Demographic Profiles in Terms of Parents’ Highest Educational Attainment

3.4 According to Parents Average Monthly Income

Table 3.4 presents the differences in the learning style preferences of students’ attitudes toward social science among Senior High School students at Sulu College of Technology (SCT) when data are grouped according parents average monthly income. The table shows the computed F-values and corresponding significance (Sig.) values for the four domains, namely auditory, kinesthetic, group learning, and individual learning.

For auditory learning style preferences, The F-value is 0.883 with a significance value of 0.477, which is greater than the 0.05 level of significance. This implies that there is no significant difference in the auditory learning style preferences of students when grouped according to monthly income of parents.

In terms of kinesthetic learning style, the computed F-value is 1.004 with a significance of 0.409, which is also deliberately greater than the 0.05 level of significance. This show that there is no significant difference in kinesthetic learning style preferences when students are grouped according to parents average monthly income.

For group learning style, F-value is 0.420 with a significance value of 0.794, exceeding than 0.05. This indicates that there is no significant difference in group learning preferences when students are grouped according to parents average monthly income.

Similarly, for individual learning style, F-value is 1.026 with a significance value of 0.398, is more than 0.05. This suggests that there is no significant difference in individual learning preferences when students are grouped according to parents average monthly income.

The findings reveal that parents average monthly income does not significantly affect the learning modalities of student's attitudes toward social science across the domains of auditory, kinesthetic, group learning, and individual learning. Hence, in null hypothesis it was stated that "There is no significant difference in the learning style preferences in learning social science among Grade 12 senior high school students in Sulu College of Technology (SCT) when data information is categorized with regards to their parents monthly earned is accepted.

Sources of Variation		Total squares of	Df	Mean Square	F	Sig.	Description
Auditory	Between Groups	.801	4	.200	.883	.477	Not Significant
	Within Groups	21.55	95	.227			
	Total	22.35	99				
Kinesthetic	Between Groups	1.066	4	.267	1.004	.409	Not Significant
	Within Groups	25.223	95	.266			
	Total	26.290	99				
Group Learning	Between Groups	.658	4	.165	.420	.794	No Significant
	Within Groups	37.237	95	.392			
	Total	37.896	99				
Individual Learning	Between Groups	1.146	4	.286	1.026	.398	Not Significant
	Within Groups	26.534	95	.279			
	Total	27.680	99				

Note. * Significant at alpha 0.05.

Table 3.4 Difference in the Learning Style Preferences of Student's Attitude Towards Social Science Among Senior High School Students at Sulu College of Technology (SCT) When Grouped According to their Demographic Profiles Concerning Parents' Average Monthly Income

Table 4

Table 4 presents the correlations among the sub-categories subsumed under learning style preferences and their relationship to students' attitudes toward social science among Senior High School students at Sulu College of Technology, Inc. The Pearson correlation coefficients (r) indicate relationships at the 0.01 and 0.05 levels of significance among some pairs of variables, based on a sample size of 100 respondents.

The degrees of correlation among the sub-categories are as follows:

A moderate positive significant correlation is observed between Auditory and Kinesthetic learning styles ($r = 0.361$, Sig. = 0.000), suggesting that students who prefer auditory learning also tend to demonstrate kinesthetic learning preferences.

A low positive significant correlation is found between Auditory and Group Learning ($r = 0.272$, Sig. = 0.000), indicating that students who prefer auditory learning also tend to engage in group learning activities.

No significant correlation is observed between Auditory and Individual Learning ($r = 0.151$, Sig. = 0.133), indicating that auditory learning preference does not significantly relate to students' preference for individual learning.

A low positive significant correlation is observed between Kinesthetic and Group Learning ($r = 0.224$, Sig. = 0.025), suggesting that students who prefer kinesthetic learning also tend to participate in group learning activities.

No significant correlation is found between Kinesthetic and Individual Learning ($r = 0.165$, Sig. = 0.101), indicating that kinesthetic learning preference is not significantly related to individual learning preference.

No significant correlation is observed between Group Learning and Individual Learning ($r = 0.005$, Sig. = 0.959), suggesting that preference for group learning does not significantly relate to preference for individual learning.

These findings indicate that some of the sub-categories of learning style preferences show significant relationships, particularly between auditory and kinesthetic learning, auditory and group learning, and kinesthetic and group learning. However, other pairs of variables do not demonstrate significant relationships.

Therefore, generally, hypothesis stated that, there is no significant correlation among the sub-categories subsumed under learning style preferences in learning social science in Sulu College of Technology, is fail to reject”

Variable		Pearson <i>r</i>	Sig.	N	Description
Outcome	Independents				
Auditory	Kinesthetic	.361**	.000	100	Moderate
	Group Learning	.272**	.000	100	Low
	Individuals Learning	.151	.133	100	Not Significant
Kinesthetic	Group Learning	.224*	.025	100	Low
	Individual Learning	.165	.101	100	Not Significant
Group Learning	Individual Learning	.005	.959	100	Not Significant

Note. **Correlations coefficient is relevant at alpha .01, *Correlation coefficient is significant at alpha .05

Correlation Coefficient Scales Adopted from Hopkins, Will (2002): = Nearly Zero; 0.1-0.3 = Low; 0.3-0.5 = Moderate; 0.5-0.7 = High; 0.7-0.9 = Very High; 0.9-1 = Nearly Perfect.

Correlations between the Sub Categories Subsumed Under Learning Style Preferences and Its Relationship to Students Attitude Towards Social Science

Summary of Findings

1. The majority of the Grade 12 Senior High School students under the HUMSS strand at Sulu College of Technology, Inc. are female. In terms of section, the respondents are almost evenly distributed across the different sections, with only slight variations in the number of students represented in each section. In relation to parents' highest educational attainment, the majority of the respondents have parents who are college graduates. Regarding parents' average monthly income, most respondents come from families earning 20,001 pesos and above
2. The findings reveal that students generally agree with the auditory, kinesthetic, and individual learning styles, indicating that they prefer learning social science through listening to explanations, participating in activities, and studying independently. Meanwhile, group learning is rated moderately agree, suggesting that although students recognize the benefits of collaborative learning, they still tend to rely more on individual and teacher-guided learning approaches.
3. The findings reveal that there is no significant difference in the learning style preferences of students' attitudes toward social science when grouped according to sex, section, parent' highest formal attainment, and parents' average monthly income. Hence, null hypothesis stating that there is no significant difference in the learning style preferences in learning social science among Grade 12 Senior High School students at Sulu College of Technology when information regarding the data were categorized according to their demographic profiles is accepted.
4. The findings reveal that there are significant correlations among some of the subcategories of learning style preferences, particularly between auditory and kinesthetic learning, auditory and group learning, and kinesthetic and group learning. However, no significant relationships were found between auditory and individual learning, kinesthetic and individual learning, and group learning and individual learning. In other words, null hypothesis and subcategories subsumed under learning style preferences in learning social science is rejected and has no significant relationship.

Conclusion and Recommendations

Conclusions

The study concluded that:

1. The findings indicated that the majority of the grade 12 Senior High School students under the HUMSS strand at Sulu College of Technology, Inc. are female, and the respondents are almost evenly distributed across the different sections. Most of the students have parents who are college graduates, and a large proportion who earn a monthly income above of 20,001 were come from families. These results suggested that the respondents come from varied educational and socioeconomic backgrounds, which may influence their learning preferences and educational experiences. This finding

is consistent with Bernardo (2017), who emphasized that Filipino learners exhibit diverse learning characteristics shaped by social, cultural, and educational backgrounds.

2. The respondents showed positive attitudes toward learning social science through different learning style preferences. It showed that learners agree with auditory, kinesthetic, and individual learning approaches, indicating that they learn effectively through listening to explanations, participating in activities, and studying independently. Meanwhile, group learning was only moderately preferred, suggesting that while students recognize the value of collaborative learning, they tended to rely more on teacher-guided instruction and individual learning. This implied that students possess varied learning style preferences that influence how they understand and engage with social science lessons.
3. The findings displayed that there was no significant difference in students' preferences and students' attitudes toward social science when they were classified with regards of their sex, section, highest attainment of their parents, and their parents' monthly earning. This implied that learning style preferences among students are relatively consistent regardless of their demographic background. This study was said to be supported the study of Lusa et al. (2025), which reported the learning style preferences among students are varied but do not necessarily differ significantly based on demographic factors.
4. The results showed that some subcategories of learning style preferences are the same and correlate with one another such as between auditory and kinesthetic learning, auditory and group learning, and kinesthetic and group learning. While, no significant relationships are found between auditory and individual learning, kinesthetic and individual learning, and group learning and individual learning. The study suggested that some various learning styles likely same with each other while others function independently. The study supported the idea that students have multiple learning preferences as emphasized by Kolb (2015) and Santibañez-Salgado et al. (2025).

Recommendations

This study recommended the following:

1. School administrators of Sulu College of Technology, Inc. may consider motivating teachers to integrate varied instructional materials and strategies in teaching social science, such as lectures, interactive activities, and collaborative tasks, to have an inclusive education and recognized the differences of the students with regards of their learning modalities.
2. Social science teachers may create a classroom activity that involved auditory, kinesthetic, and collaborative learning approaches, such as discussions, role-playing, simulations, and group tasks, to enhanced and improved students' engagement and comprehension about social science concepts.
3. Students may be encouraged and motivated to identified, recognized and utilized their preferred learning styles when studying social science to improved their comprehension and academic performance.
4. Future researchers may conduct additional further investigation about learning style preferences in other subject areas or educational levels to find out and provide broader insights into how learning styles influence and affect students' academic engagement and performance.

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Competing Interests Statement

The author does not have any financial or other relationships that could give rise to a conflict of interest with respect to presenting her findings or conclusions.

Data Availability Statement

The author's study relied exclusively on previously published literature cited within, creating a clear basis for not having data-sharing implications. No original datasets were generated or analyzed in the article.

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Appendices

No appendices are attached to this study.