



Sam Houston State University

**Office of Assessment**

Academic Affairs

College of Science and Engineering Technology  
A Report on the Teamwork Self-Reflection Instrument  
2025-2026

The Teamwork Self-Reflection Instrument (TSRI) was developed by the Office of Assessment at Sam Houston State University (SHSU) to assess teamwork, one of the six Core Objectives established by the Texas Higher Education Coordinating Board (THECB). The THECB (2018) defines teamwork as “the ability to consider different points of view and to work effectively with others to support a shared purpose or goal” (p. 4).

## Method

### Instrument

The TSRI was intentionally designed to assess students’ self-perceived actions, attitudes, and behaviors in team settings. It was piloted in Fall 2016, revised, then further tested in Fall 2017 and Spring 2018. The full implementation began in Fall 2018. The TSRI is administered each academic year to approximately 500 students. Over a three-year cycle, each academic college at SHSU participates. The TSRI schedule is available on the Office of Assessment’s Core Curriculum Projects [webpage](#), and the TSRI instrument is located in the Appendix of this report.

### Procedure

At the beginning of the semester, the Director of Assessment distributes an email to college leadership requesting participation in the TSRI process. The Associate Dean overseeing assessment within their college collaborates with department chairs to identify faculty members willing to allocate approximately ten minutes of class time for students to complete the TSRI. Participating faculty subsequently coordinate with the Office of Assessment to facilitate distribution of the instrument by posting a survey link within their course Blackboard site. Following completion of all TSRI administrations, the data are exported to Microsoft Excel and then imported into SPSS for statistical analysis.

### Participants

The Office of Assessment strives to elicit faculty and student participation from every department in participating colleges. Although the TSRI may be completed by students enrolled in face-to-face or online classes, face-to-face is the preferred modality as it typically yields higher participation rates.

For 2025-2026, 202 students from the College of Science and Engineering Technology completed the TSRI. Table 1 provides a breakdown of participants by student classification.

Table 1  
*TSRI Participants by Student Classification*

Classification	<i>n</i>
Freshman/Sophomore	58
Junior/Senior	144
Total	202

## Results

### Differences Across Teamwork Domains for All Students

Descriptive statistics indicated that students reported generally positive self-perceptions across the five TSRI teamwork domains. The highest mean score was observed for Interactions with Group Members, followed by Time and Task Management. Contributions to Group Activities and Contributions to Group Discussions had identical mean scores. The lowest mean score was observed for Responses to Inter-Group Conflict or Disagreement, suggesting that students perceived themselves least positively in this area compared to the other teamwork domains. Descriptive statistics are provided in Table 2.

Table 2  
*Descriptive Statistics for TSRI Domains – All Students*

Domain	<i>n</i>	<i>M</i>	<i>SD</i>
1-Contributions to Group Activities	202	3.05	.74
2-Contributions to Group Discussions	202	3.05	.67
3-Time and Task Management	202	3.07	.69
4-Interactions with Group Members	202	3.19	.54
5-Responses to Inter-Group Conflict or Disagreement	202	2.82	.90

A repeated-measures ANOVA was conducted to examine differences in students' self-perceived teamwork skills across the five domains of the Teamwork Self-Reflection Instrument (TSRI): Contributions to Group Activities (Domain 1), Contributions to Group Discussions (Domain 2), Time and Task Management (Domain 3), Interactions with Group Members (Domain 4), and Responses to Inter-Group Conflict or Disagreement (Domain 5). Domain 6 (Reflection on Teamwork Experience) was excluded from this analysis.

Mauchly's Test of Sphericity indicated that the assumption of sphericity had been violated; therefore, Greenhouse–Geisser-corrected results are reported. The repeated-measures ANOVA revealed a statistically significant difference in teamwork domain scores,  $F(3.65, 734.03) = 12.38, p < .001, \text{partial } \eta^2 = .058$ , indicating a medium effect size (Cohen, 1988). Bonferroni-adjusted pairwise comparisons indicated that scores for Interactions with Group Members were statistically significantly higher than those for Contributions to Group Discussions and Responses to Inter-Group Conflict or Disagreement. Additionally, scores for Contributions to Group Activities, Contributions to Group Discussions, and Time and Task Management were all statistically significantly higher than scores for Responses to Inter-Group Conflict or Disagreement, which was statistically significantly lower than all other domains. No other pairwise comparisons were statistically significant.

## Differences Across Teamwork Domains by Student Classification

Descriptive statistics indicated that Freshman/Sophomore and Junior/Senior students demonstrated a similar pattern of self-perceived teamwork skills across the five TSRI domains. Specifically, the two groups ranked the five domains in nearly the same order from highest to lowest. Both groups reported the highest scores for Interactions with Group Members and the lowest scores for Responses to Inter-Group Conflict or Disagreement. This pattern suggests that students in both classification groups perceived interpersonal interactions with group members as a relative strength, while responses to conflict or disagreement were comparatively weaker. Additionally, Junior/Senior students reported slightly higher mean scores than Freshman/Sophomore students across all five teamwork domains. Descriptive statistics for TSRI Domains by Freshman/Sophomore classification are provided in Table 3, and descriptive statistics by Junior/Senior classification are presented in Table 4.

Table 3

*Descriptive Statistics for TSRI Domains by Freshman/Sophomore Classification*

Domain	<i>n</i>	<i>M</i>	<i>SD</i>
1-Contributions to Group Activities	58	2.96	.71
2-Contributions to Group Discussions	58	2.92	.68
3-Time and Task Management	58	2.91	.82
4-Interactions with Group Members	58	3.13	.64
5-Responses to Inter-Group Conflict or Disagreement	58	2.60	.95

Table 4

*Descriptive Statistics for TSRI Domains by Junior/Senior Classification*

Domain	<i>n</i>	<i>M</i>	<i>SD</i>
1-Contributions to Group Activities	144	3.09	.75
2-Contributions to Group Discussions	144	3.11	.65
3-Time and Task Management	144	3.13	.62
4-Interactions with Group Members	144	3.22	.50
5-Responses to Inter-Group Conflict or Disagreement	144	2.90	.87

A mixed-design repeated-measures ANOVA was conducted to determine whether students' self-perceived teamwork scores differed by class group and whether the pattern of TSRI domain scores varied between Freshman/Sophomore and Junior/Senior students. Mauchly's Test of Sphericity indicated that the assumption of sphericity had been violated; therefore, Greenhouse-Geisser-corrected results were applied for interpretation of the within-subjects effects.

Results revealed a statistically significant main effect for teamwork domain,  $F(3.66, 731.81) = 12.65, p < .001$ , partial  $\eta^2 = .059$ , indicating a medium effect size. These findings suggest that students' self-perceived teamwork skills were statistically significantly different across the five TSRI domains. Bonferroni-adjusted pairwise comparisons indicated that scores for Interactions with Group Members were statistically significantly higher than those for Contributions to Group Discussions and Responses to Inter-Group Conflict or Disagreement. Additionally, scores for Contributions to Group Activities, Contributions to Group Discussions, and Time and Task Management were all statistically significantly higher than scores for Responses to Inter-Group

Conflict or Disagreement, which was statistically significantly lower than all other domains. No other pairwise comparisons were statistically significant. Results also revealed a statistically significant main effect for class group,  $F(1, 200) = 5.21, p = .024$ , partial  $\eta^2 = .025$ , indicating a small effect size. Overall, junior/senior students reported significantly higher teamwork domain scores than freshman/sophomore students. The interaction between teamwork domain and class group was not statistically significant, indicating that the pattern of teamwork domain scores was generally consistent across freshman/sophomore and junior/senior students, despite juniors and seniors reporting somewhat higher teamwork scores overall.

## Discussion

The purpose of this study was to examine students' self-perceived teamwork skills across the five domains of the Teamwork Self-Reflection Instrument (TSRI) and to determine whether these perceptions differed by student classification. Overall, the findings suggest that students perceived themselves more positively in interpersonal collaboration and task-management-related aspects of teamwork than in their ability to manage conflict or disagreement within group settings. The medium effect sizes observed in the repeated-measures analyses further suggest that these differences were not only statistically significant but also meaningful in practical terms.

Across analyses, students consistently reported the highest scores for Interactions with Group Members and the lowest scores for Responses to Inter-Group Conflict or Disagreement. These findings indicate that students generally perceived themselves as effective in working collaboratively with others, communicating appropriately, and maintaining positive interpersonal relationships within teams. In contrast, students appeared less confident in their ability to navigate disagreement, conflict, or challenging interpersonal dynamics that may arise during collaborative work. The pairwise comparisons further reinforced this pattern, as Responses to Inter-Group Conflict or Disagreement was rated significantly lower than all other teamwork domains. This finding may suggest that while students are generally comfortable participating in collaborative environments, they may experience greater difficulty when teamwork requires negotiation, conflict management, compromise, or the resolution of competing perspectives.

The findings also demonstrated that Freshman/Sophomore and Junior/Senior students exhibited a highly similar pattern of teamwork domain scores. Both classification groups identified Interactions with Group Members as a relative strength and Responses to Inter-Group Conflict or Disagreement as a comparatively weaker area. The nonsignificant interaction effect further supports the conclusion that the overall pattern of teamwork strengths and weaknesses remained generally consistent regardless of classification level. This consistency may suggest that students' perceptions of teamwork competencies develop in relatively similar ways across academic progression or that certain teamwork strengths and challenges persist throughout students' undergraduate experiences.

Although the overall pattern of domain scores was similar across classification groups, Junior/Senior students reported statistically significantly higher teamwork scores overall than Freshman/Sophomore students. This finding may indicate that teamwork-related confidence or perceived competence increases as students progress through their academic programs and accumulate additional collaborative experiences in coursework, extracurricular activities,

internships, clinical placements, or other group-based learning environments. Increased exposure to collaborative academic and professional contexts may contribute to greater familiarity with teamwork expectations and improved confidence in navigating team-based responsibilities.

One limitation should be considered when interpreting these findings. The study relied on students' self-reported perceptions of their teamwork skills rather than direct observations of actual teamwork behaviors, which may introduce response bias or social desirability effects. Because teamwork is generally viewed as a positive and desirable characteristic, some students may have rated their abilities more favorably than their actual behaviors or performance in group settings would suggest. Future research may benefit from incorporating direct measures of teamwork performance, peer or instructor evaluations, qualitative reflections, or longitudinal approaches to examine how teamwork skills develop over time.

### **Recommendations**

Based on the findings of this study, educators and academic programs may wish to provide more intentional opportunities for students to develop teamwork skills related to conflict resolution and managing disagreement within group settings. Although students generally perceived themselves positively in interpersonal collaboration and group interaction, Responses to Inter-Group Conflict or Disagreement consistently emerged as the lowest-rated teamwork domain across both classification groups. As a result, instructional practices that explicitly address communication during disagreement, negotiation strategies, problem-solving, and constructive conflict management may help strengthen students' confidence and effectiveness in this area.

Academic programs may also benefit from incorporating structured collaborative learning experiences throughout the curriculum. Repeated exposure to team-based assignments, peer collaboration, and reflective group activities may support the continued development of teamwork competencies as students progress academically. Because Junior/Senior students reported higher overall teamwork scores than Freshman/Sophomore students, providing early and sustained opportunities for teamwork engagement may help facilitate the gradual development of teamwork-related confidence and skills over time.

Additionally, educators may wish to incorporate guided peer feedback, team reflection activities, and clearly defined group roles into collaborative assignments. These practices may encourage greater student accountability, improve communication among team members, and provide students with opportunities to reflect on both effective and ineffective teamwork behaviors. Programs may also consider integrating instruction related to conflict management and collaborative problem-solving into coursework, co-curricular experiences, or professional development initiatives to better prepare students for team-based academic and professional environments.

## References

Cohen, J. (1988). *Statistical power analysis for the behavioral sciences* (2<sup>nd</sup> ed.). Lawrence Erlbaum Associates.

Texas Higher Education Coordinating Board. (2018). *Texas core curriculum*.  
<https://reportcenter.highered.texas.gov/agency-publication/miscellaneous/elements-of-the-texas-core-curriculum/>

## **Appendix**

### **Teamwork Self-Reflection Instrument**

Greetings!

The Teamwork Self-Reflection Instrument (TSRI) survey that you are about to take will help the Office of Assessment collect information regarding student teamwork skills at SHSU as part of our analysis of core learning objectives to help ensure students receive a quality core curriculum.

There is no foreseeable risk or harm to you for participating in this assessment, and all data collected will be used as a whole. Your participation is purely voluntary and will not affect your standing at SHSU in any way.

The TSRI reflects how you behave as a team member, preferably in classes at SHSU. If you have not yet participated in any group activities at SHSU, then respond as best you can based on any prior teamwork experiences. You are to reflect upon your experiences as a whole, not necessarily just one experience. The idea is to capture a sense of your general perceptions regarding your actions and behaviors in a team setting.

You will have a total of 20 multiple-choice selections regarding various aspects of teamwork. Please make the choice that you feel best identifies your behaviors - there are no wrong answers! This survey should take you no more than 10 minutes to complete.

Thank you for your participation!

The Office of Assessment  
Sam Houston State University

### **Domain 1: Contributions to Group Activities**

Select the statements that best describe how you **contribute to group activities**.

#1 Choose one from the list below.

- I only contribute what is required to complete the project or task.
- I may contribute some ideas and work to the group.
- I actively contribute ideas and work that advance the project.
- I help integrate the work and ideas of all group members to complete the project.

#2 Choose one from the list below.

- I always let others come up with ideas for completing the group project.
  - I generally allow others to come up with ideas for completing the group project, although I may contribute ideas on occasion.
  - I make sure that mostly my ideas are considered or used to complete the group project.
  - I make sure that all ideas are considered if they help complete the group project.
- 

### **Domain 2: Contributions to Group Discussions**

Select the statements that best describe how you **contribute to group discussions**.

#3 Choose one from the list below.

- I only participate in group discussions when required.
- I will participate in group discussions, though I do not like doing so.
- I like participating in group discussions, but generally don't start them.
- I like participating in group discussions and will start them.

#4 Choose one from the list below.

- I never lead the group discussion.
- I almost never lead a group discussion.
- I often find myself leading group discussions.
- I will lead group discussions, but don't mind if others do so.

#5 Choose one from the list below.

- I don't contribute to group discussions unless I'm asked a direct question.
- I'm usually quiet in group discussions but will speak up if I feel it's very important.
- I sometimes dominate the group discussion with my views and opinions.
- I notice when someone is not participating and invite them to engage in the conversation.

#6 Choose one from the list below.

- I don't feel that a lot of discussion is necessary to complete a group project.
- I'm willing to let others talk if it will get the project completed faster.
- I'm more interested in getting the work done than ensuring all group members are participating equally.
- I feel that it's important for group discussions to involve all group members.

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### **Domain 3: Time and Task Management**

Select the statements that best describe your **time and task management**.

#7 Choose one from the list below.

- I generally let my group members establish any timelines for completing work.
- I am involved with establishing timelines for completing work, but generally let others take the lead.
- I take the lead in determining timelines for completing work by the group and am willing to assign tasks to other group members.
- I work with my group members to determine timelines and to identify the best person to complete each task.

#8 Choose one from the list below.

- I complete the work that is assigned to me by the group, but don't really go beyond that.
- I may volunteer to complete certain tasks if no one else is willing to do them.
- I will volunteer for tasks that I see as being more difficult.
- I will volunteer for the tasks that I feel I am best suited to complete.

#9 Choose one from the list below.

- I usually do not complete my assigned work by established deadlines.
- I usually complete my assigned work by established deadlines, but sometimes I am late.
- I complete all my assigned work by established deadlines.
- I complete most or all of my assigned work before established deadlines.

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#### **Domain 4: Interactions with Group Members**

Select the statements that best describe your **interactions with group members**.

#10 Choose one from the list below.

- I'm sometimes impolite or short with my group members.
- I try not to be rude or impolite with my fellow group members.
- I'm generally kind and polite with my fellow group members
- I'm almost always kind and polite with my fellow group members.

#11 Choose one from the list below.

- I may use negative tones when I write or speak to my group members about our project.
- I sometimes use both positive and negative tones when I write or speak to my group members about our project.
- I generally use positive tones when I write or speak to my group members about our project.
- I almost always use positive tones when I write or speak to my group members about our project.

#12 Choose one from the list below.

- I sometimes display negative facial expressions and body language when I interact with my group members.
- I use both positive and negative facial expressions and body language when I interact with my group members.
- I generally display positive facial expressions and body language when I interact with my group members.
- I almost always display positive facial expressions and body language when I interact with my group members.

#13 Choose one from the list below.

- I sometimes speak negatively about the project or task my group is trying to complete.
- I sometimes speak both positively and negatively about the project or task my group is trying to complete.
- I generally speak positively about the project or task my group is trying to complete.
- I almost always speak positively about the project or task my group is trying to complete.

#14 Choose one from the list below.

- I avoid helping my group members accomplish tasks.
  - I provide help to my group members, if asked, but don't go out of my way to do so.
  - I don't mind helping my fellow group members if they need it.
  - I will go out of my way to assist my fellow group members if they need help.
- 

### **Domain 5: Responses to Inter-Group Conflict or Disagreement**

Select the statements that best describe your **responses to inter-group conflict or disagreement**.

#15 Choose one from the list below.

- I feel that conflict in a group is never good and should be avoided if possible.
- I feel that there is always a right side and a wrong side in group conflicts, and I want to be on the right side.
- When conflict occurs, I recognize the value of different perspectives but think the conflict should be minimized to prevent it from interfering with the group task.
- I feel that conflict in a group can be positive and can help in accomplishing a group task.

#16 Choose one from the list below.

- I try to avoid group conflict.
- I allow others to take the lead in resolving conflict.
- I take the lead in combining the ideas of group members to resolve the conflict.
- I work with my group members to resolve the conflict in a way that strengthens the group and the project.

#17 Choose one from the list below.

- I think conflict should be avoided because it interferes with the completion of a project.
  - I think that it's quicker to let others resolve conflict.
  - I try to resolve the conflict as quickly and efficiently as possible, so it does not distract us from our project.
  - I work with my group members to resolve the conflict, even if it takes more time and work.
- 

### **Domain 6: Reflection on Teamwork Experience**

Reflect on your teamwork experiences

#18 Select your number of teamwork experiences at SHSU.

- 0
- 1-3
- 4-6
- 7-9
- 10 or more

#19 I would rate my ability to work with others as:

- Very below average
- Below average
- Average
- Above average
- Very above average

#20 I think my teamwork skills are better than \_\_\_ of students completing this survey.

- 10%
- 30%
- 50%
- 70%
- 90%