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This study aims to examine athletic training student's perceptions of a new, multisource soft-skills assessment process and the feedback they received. **Methods**: A convenience sample of 27 students enrolled in a graduate-level, CAATE-accredited athletic training education program participated in the study. At the beginning of a semester participants received an individualized multi-source soft skills feedback report based on data collected the previous semester using the Athletic Training Student - Soft Skills Assessment (ATS-SSA) instrument which includes 11 soft skill themes. Participants completed 1 survey designed to assess initial impressions of the feedback and 2 assignments focused on reflection and goal setting. One week before the end of the term, students completed a second survey to assess final impressions. Surveys included Likert scale and open response questions. **Results:** The process and feedback were viewed favorably. Feedback was considered fair, useful, and easy to understand. Participants recognized benefits from receiving multi-source feedback from credible evaluators. The majority of participants indicated a willingness to invest in efforts to improve. **Conclusions:** Preliminary findings suggest that the ATS-SSA Instrument and associated feedback process can provide worthwhile and beneficial feedback to athletic training students.

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Purpose: A new multi-source soft skills assessment tool and process was used in an entry-level Master of Science in athletic training education program. The goal was to provide students with individualized feedback related to soft skills that would serve to facilitate improvement and growth. The feedback process included self-reflection, goal setting, and follow-ups. This study aims to examine athletic training students' perceptions of a new, multisource soft-skills assessment process and the feedback they received. **Methods:** A convenience sample of 27 students enrolled in a graduate-level, CAATE-accredited athletic training education program participated in the study. At the beginning of a semester participants received an individualized multi-source soft skills feedback report based on data collected the previous semester using the Athletic Training Student - Soft Skills Assessment (ATS-SSA) instrument which includes 11 soft skill themes. Participants completed 1 survey designed to assess initial impressions of the feedback and 2 assignments focused on reflection and goal setting. One week before the end of the term, students completed a second survey to assess final impressions. Surveys included Likert scale and open response questions. **Results:** The process and feedback were viewed favorably. Feedback was considered fair, useful, and easy to understand. Participants recognized benefits from receiving multi-source feedback from credible evaluators. The majority of participants indicated a willingness to invest in efforts to improve. **Conclusions:** Preliminary findings suggest that the ATS-SSA Instrument and associated feedback process can provide worthwhile and beneficial feedback to athletic training students.

Keywords: athletic training, soft skills, multisource feedback, professional development

INTRODUCTION

Multisource feedback (MSF) is a survey-based assessment process in which key performance behaviors are evaluated by multiple reviewers from different perspectives.[1-3] The reviewers should work closely enough with the person they are reviewing to directly observe the behaviors being evaluated.[4,5] A more comprehensive assessment can be achieved when reviewers use multiple observations over time and under normal circumstances to determine a rating.[1-3,6,7] This type of assessment approach can be especially useful when evaluating behaviors related to soft skills, which may be difficult to evaluate using a single focused observation.[1-3,5,7-9] Soft skills, also called "employability skills", " interpersonal skills", and "transferable skills" are character traits, attitudes, and behaviors.[10-14] Soft skills are considered non-technical skills and include integrity, communication, initiative, responsibility, work ethic, and being adaptable and helpful.[12,14,15] Assessment of soft skills can be challenging.[16] However, observations conducted in variety of situations over time should provide a more reliable evaluation than could be achieved in a single standardized assessment in a simulated environment.[7]

Self-assessment data may also be included in MSF.[3,17] Self-rating allows comparison of how an individual sees themselves to how the individual is seen by others. Multisource evaluations that include self-assessment allow identification of areas where the individual may over-appraise or under-appraise their skills. This aspect of MSF is particularly useful because self-perceptions of competence that are not accurate can impede growth.[18] Creating awareness of a discrepancy between self and reviewer ratings has several advantages such as: 1) signal an area that needs attention, 2) help MSF recipients recalibrate their self-perceptions, and 3) justify a need for change.[3,17]

Feedback is a significant factor in student learning and motivation.[19-21] For feedback to be effective in promoting positive change, the recipients must view the feedback as accurate, credible, relevant, and useful.[20,22-24] Reactions to performance feedback can influence the way the information is used.[25,26] If an individual has a negative impression of the assessment process or perception of bias or lack of fairness, the reaction could be unfavorable and feedback may not be used to improve performance as is intended.[25,27-29] Thus how recipients perceive the feedback and the assessment process is an important aspect of the MSF.

Along with an individuals' initial reaction, other personal factors can influence the benefits and impact of MSF. For example, a personal sense of accountability, beliefs about change, and self-efficacy related to change can affect motivation and effort.[30-32] Individuals who feel accountable tend to care about the expectations of others and recognize the consequences of their actions. These individuals may process feedback more deeply and find personal meaning in the feedback.[30] Individuals with high self-efficacy, who believe their actions can lead to improvement, are more likely to engage in efforts to change based on the MSF they receive.[32] These individuals tend to set learning goals, take action towards achieving those goals, and persist when confronted with challenges.[33,34] If there is a belief that change is futile or not feasible, the feedback recipient may be less motivated to take or sustain efforts to change.[32]

The perceived usefulness and effectiveness of MSF can be influenced by factors related to the feedback and the feedback process. For example, Sargeant[35] found that physicians who thought the MSF they received was specific, were able to improve performance because they felt the detailed feedback clarified performance expectations, which, in turn, helped them identify and plan for improvement. Physicians who felt the MSF was vague were less likely to make changes in their practice.[35] Other factors, such as providing an opportunity to discuss the results and facilitating goal setting, can create a supportive environment for MSF recipients.[3,31] Additionally, annual assessments can improve the likelihood of taking action to affect change. Knowing there is an expectation for effort towards improvement provides a strong incentive.[31]

The present study is a preliminary exploration that focuses on athletic training student's perceptions of a multisource soft skills assessment process and the feedback they received. This study sought first to examine: 1) students initial perceptions of fairness, usability, acceptability, willingness to change and affect related to the MSF they received; 2) how students rated themselves on accountability and self-efficacy; 3) student initial perceptions of their experience receiving MSF; 4) student opinions on why getting feedback from multiple sources may be beneficial or not; and 5) student opinions on how the process and product could be improved to promote professional development. The study further sought to investigate student's perceptions of the MSF after they had time to reflect, set goals and work towards achieving those goals. Specifically, the following elements examined student's perceptions of: 1) the usefulness of the feedback; 2) how easy the feedback was to understand; 3) how willing they were to improve after receiving MSF; 4) the progress made towards their goals; 5) the helpfulness of assignments; and 6) what improvements should be made to the process or product. The MSF instrument and process used in this study are unique. There is potential for positive outcomes, however this approach to assessing soft skills and providing feedback is time consuming and labor intensive. Therefore, the goal of this study is to examine student perceptions to inform future use and practices.

METHODS

Design & Setting

A cross-sectional survey design was used to evaluate research questions related to the student's perceptions of individualized MSF and the process that was used to support the feedback. This study used a mixed-methods design. Quantitative (i.e., closed-ended survey questions) and qualitative (i.e., open-ended survey questions) data provided indicators of student perceptions. A general inductive approach was used to analyze data to understand the common experiences of the participants.[36] The "Strengthening the Reporting of Observational Studies in Epidemiology" (STROBE-Cross- sectional) guidelines and checklist were consulted to ensure comprehensive reporting of findings.[37] The study occurred at one private mid-western university with an accredited professional-level master's program in athletic training. Institutional Review Board approval was obtained prior to recruiting participants.

Participants

A convenience sample of 27 students enrolled in a masters-level athletic training program were recruited via email. The request for study participation was sent after the semester ended and course grades were submitted. All students voluntarily agreed to participate in the study. Twenty-seven participants completed the first survey (initial impressions of MSF) and 21 participants completed the second survey (final impressions of MSF). The first survey was completed at the beginning of the semester and was a course requirement. The second survey at the end of the semester was optional.

Instrumentation

Two surveys were used to measure student perceptions. The purpose of the first survey was to examine initial impressions of the new individualized MSF report. This survey included 19 questions adapted from the Feedback Perceptions Questionnaire (FPQ) developed and validated by Strijbos, Narciss, and Dünnebier.[38] This questionnaire measures multiple aspects of feedback including: fairness, usefulness, acceptance, willingness to improve, and affect. Previous research with the FPQ indicated internal consistency ranging from α = .69-.81 for the 5 parts of the questionnaire.[38] Adaptations to the FPQ were made for purposes of context. The first survey also included 2 additional questions related to accountability and feedback self-efficacy. The first 21 questions were rated on a Likert scale ranging from (0) fully disagree to 10 (fully agree), the final 5 questions were open-ended. These open-ended questions aimed to capture student perceptions of their experience with receiving MSF, their opinions on why getting feedback from multiple sources may be beneficial or not, what additional feedback they may want, and how the feedback experience could be improved. The survey was hosted on the Qualtrics platform (Qualtrics, Provo, UT). Negative phrased items were recoded so that the scale measured positive. Face validity and content validity of the updated survey were established by a panel of 5 experts. Due to the item changes and additions, internal consistency was examined with Cronbach α. The survey demonstrated acceptable internal consistency with a Cronbach α = .95. Internal consistency of each subscale was acceptable: (a) Fairness (Cronbach α = .91), (b) Useability (Cronbach α = .73), (c) Acceptability (Cronbach α = .64), (d) Willingness (Cronbach α = .84), and (e) Affect (Cronbach α = .84). Results are presented in Table 1.

Table 1: Internal consistency data for Survey 1: Initial Perceptions of MSF

Theme	No. of Items	Cronbach α
Fairness	4	.91
Useability	4	.73
Acceptability	2	.64
Willingness	3	.84
Affect	6	.84
Overall	21	.95

The purpose of the second survey was to further examine perceptions of the individualized feedback as well as examine perceptions of the feedback process after they had time to reflect, set goals and work towards achieving those goals. The second survey used 3 open-ended questions and 12 Likert scale questions including 8 questions related to usefulness, willingness to improve and perceived improvement, along with 4 questions related to student perceptions of the related class assignments. The 3 open-ended questions were identical to 3 of the questions in the first survey. The survey was hosted on the Qualtrics platform (Qualtrics, Provo, UT). Negative phrased items were recoded so that the scale measured positive. Face validity and content validity of the survey were established by a panel of 5 experts. The survey demonstrated acceptable internal consistency with a Cronbach α = .90. Internal consistency of each subscale was acceptable: (a) usefulness (Cronbach α = .92), and (b) willingness (Cronbach α = .75), (c) goals (Cronbach α = .95) and (d) assignments (Cronbach α = .66). See Table 2.

Table 2: Internal consistency data for Survey 2: Final Perceptions of MSF

Theme	No. of Items	Cronbach α
Usefulness	3	.92
Willingness	3	.75
Goals	2	.95
Assignments	4	.66
All	12	.90

Protocol & Data Collection

At the end of a 16-week semester that included course work and clinical work, students completed the Athletic Training Student - Soft Skills Assessment (ATS-SSA) instrument. This instrument includes 64 questions across 11 soft skill themes. Students rated themselves on the ATS-SSA instrument. Each student was rated by at least one preceptor and by at least one full-time professor in their academic program. The data from the ATS-SSA instrument was used to generate an individualized feedback report for each student. Preceptor and professor ratings were based on observations of behaviors during the most recent semester. All preceptors were certified athletic trainers who supervised, instructed, and mentored students in the clinical environment. All professors were full-time faculty members.

At the beginning of the following semester, each participant first received a sample soft skills feedback report with an explanation of the purpose of the feedback and instructions on how to read and interpret the information. They were then provided with their individualized MSF report using data from the ATS-SSA instrument, which was collected at the end of the previous semester. Each report includes a table with 3 columns (i.e., students' self-rating, rating of their preceptor(s), and rating from their instructors) and 11 rows (one for each soft skill theme score). This table allows easy comparison of all three ratings. There is also a graphical representation of the table in the form of a radar chart. An explanation of each soft skill theme was provided with the report as a reference. This information allowed students to compare and contrast the ratings in each theme and examine how they perceive themselves and how others perceive them in different contexts (i.e., clinical and academic). Please see Appendix A for an example of an individualized feedback report.

During the first week of the new semester, students were asked to complete Survey 1 (initial impressions of MSF) and one reflection assignment. The reflection assignment asked students to consider the feedback they received and to express what it meant to them. It also required students to consider how to use the feedback to make improvements and to create two SMART (Specific, Measurable, Achievable, Relevant, and Timebound) goals related to their self-identified growth areas. Three weeks after completion of assignment 1, students were asked to reflect on their SMART goals and to make thoughtful modifications if needed. These assignments were part of a required course. Please see Appendix B for questions used in assignment 1 and assignment 2. The second survey (final impressions of MSF) was completed within one week of the end of the course (this was not a course requirement). Survey data was not examined until after course grades were posted. This protocol was approved by the institutional review board.

Data Analysis & Trustworthiness

Quantitative data analysis was conducted using SPSS version 26 (IBM Corp., Armonk, NY). Analysis of qualitative data was conducted by a 4-person team using a multi-phase process. The data was analyzed to examine trends and patterns in participants' responses. Three researchers worked independently to identify key themes. Similar responses were placed into categories, which became themes. The team then discussed the themes in order to reach a consensus. Once a consensus was met, the fourth member of the team served as an external auditor and ensured that the data was properly represented.

RESULTS

The participant age range for survey 1 was 22 to 28 years (23.88 $\pm$ 1.63 years), 10 were male and 17 were female. The ethnic distribution was 1% Black or African American, 7% Hispanic, 78% White, and 11% Other or Unknown. The participate age range for survey 2 was 22 to 28 years (23.81 $\pm$ 1.57 years), 6 were male and 16 were female. The ethic distribution was 1% Black or African American, 1% Hispanic, 76% White, and 14% Other or Unknown. Participant demographic data can be viewed in Table 3. Quantitative and qualitative results of this study are presented below. Quantitative results for survey 1 can be seen in Table 4. Quantitative results for survey 2 can be seen in Table 5. Qualitative results for survey 1 and survey 2 are presented together in Table 6.

Table 3. Participant Demographics

Demographic Variable	Survey 1 No.	%	Survey 2 No.	%
Age				
21-24	23	85%	19	90%
25-29	4	4%	2	10%
Gender				
Male	10	37%	6	29%
Female	17	63%	15	71%
Race				
Black or African American	1	4%	1	5%
Hispanic	2	7%	1	5%
White	21	78%	16	76%
Other or Unknown	3	11%	3	14%

Initial Perceptions of MSF

Survey 1: Quantitative Data

Sincere, Fair, and Justified

The initial perception of the feedback by the participants was that it was sincere (8.37 ± 1.24), fair (8.63 ± 1.31), and justified (8.37 ± 1.52). Ninety-seven percent of respondents provided ratings of 7 or above indicating a strong level of agreement. The majority of participants (70%) indicated that they agreed that the MSF results were consistent with feedback received throughout the semester (7.63 ± 1.98). Twenty-six percent of responses were neutral on this question (scores of 4-6) and only one response was unfavorable.

Useful & Easy to Understand

Over 90% of participants provided favorable responses (rating of 7 or above) indicating that they considered the feedback useful (8.96 ± 1.43), helpful (9.04 ± 1.43), and helped them focus on areas they could improve (8.78 ± 1.28). Most of the participants also found the feedback easy to understand (8.26 ± 1.70) , with 89% providing ratings of 7 or above. There were no unfavorable ratings (score below 4) for these items.

Acceptability

Most of the participants (96%) accepted the feedback (9.04 ± 1.54). However, ratings were less positive when asked if they would challenge the feedback (7.48 ± 1.85). Seventy percent of respondents indicated that they would not challenge the ratings, and 30% provided neutral ratings.

Willingness to Improve

The majority of participants (96%) indicated a willingness to improve based on the feedback they received (8.96 ± 1.13). Eighty-nine percent of participants indicated a willingness to invest effort into improving (8.52 ± 1.31). Many of the participants indicated that the feedback was sufficient enough for them to create concrete goals at the beginning of the term (7.78 ± 1.76). When asked if the feedback was sufficient enough to create concrete goals, 74% percent of participants provided favorable ratings of 7 or above and 26% of participants provided a neutral rating (score of 4-6).

Affect

There were 3 questions related to positive affect and 3 questions related to negative affect. Negative phrased items were recoded so that the scale measured positive. The majority of participants gave positive ratings related to affect. Seventy-eight percent of participants felt satisfied (7.93 ± 1.64), 75% felt confident (7.59 ± 1.72), and 89% felt successful (7.85 ± 1.63) because they received this feedback. Additionally, the majority of participants (over 85%) did not feel offended (8.78 ± 1.63), angry (9.11 ± 1.63), or frustrated (8.89 ± 1.69), because they received this feedback.

Accountability and Self-Efficacy

All participants (100%) felt that it was their responsibility to improve their performance (8.81 ± 1.21). The majority of participants (96%) also believed they had the ability to deal with feedback effectively (8.78 ± 1.31).

Table 4: Quantitative Data from Survey 1: Initial Perceptions of MSF

	Fully Disagree		Neutral		Fully Agree		
	0-1	2-3	4-6	7-8	9-10	M	SD
FAIRNESS							
1. I consider this feedback to be sincere.	0 (0%)	0 (0%)	1 (4%)	15 (56%)	11 (41%)	8.37	1.24
2. I consider this feedback fair.	0 (0%)	0 (0%)	1 (4%)	10 (37%)	16 (59%)	8.63	1.31
3. I consider this feedback justified.	0 (0%)	0 (0%)	2 (7%)	10 (37%)	15 (56%)	8.37	1.52
4. This feedback was consistent with the feedback I have received throughout the semester.	0 (0%)	1 (4%)	7 (26%)	7 (26%)	12 (44%)	7.67	1.88
USEFULNESS / EASY TO UNDERSTAND							
5. I consider this feedback useful.	0 (0%)	0 (0%)	2 (7%)	4 (15%)	21 (78%)	8.96	1.43
6. I consider this feedback helpful.	0 (0%)	0 (0%)	1 (4%)	3 (11%)	22 (81%)	9.04	1.43
7. The feedback helped me focus on areas I could improve.	0 (0%)	0 (0%)	2 (7%)	7 (26%)	18 (67%)	8.78	1.28
8. The feedback was easy to understand.	0 (0%)	0 (0%)	3 (11%)	11 (41%)	13 (48%)	8.26	1.70
ACCEPTANCE							
9. I accept this feedback.	0 (0%)	1 (4%)	0 (0%)	4 (15%)	22 (81%)	9.04	1.51
10. I challenge this feedback.	0 (0%)	0 (0%)	8 (30%)	9 (33%)	10 (37%)	7.48	1.85
WILLINGNESS							
11. I am willing to improve my performance based on the feedback I received.	0 (0%)	0 (0%)	1 (4%)	9 (33%)	17 (63%)	8.96	1.13
12. I am willing to invest a lot of effort in improving.	0 (0%)	0 (0%)	3 (11%)	10 (37%)	14 (52%)	8.52	1.31
13. This feedback was sufficient enough for me to create concrete goals.	0 (0%)	0 (0%)	7 (26%)	10 (37%)	10 (37%)	7.78	1.76
AFFECT - POSITIVE							
14. I feel satisfied because I received this feedback.	0 (0%)	1 (4%)	2 (7%)	15 (45%)	9 (33%)	7.93	1.64
15. I feel confident because I received this feedback.	0 (0%)	1 (4%)	3 (11%)	15 (45%)	8 (30%)	7.59	1.72
16. I feel successful because I received this feedback.	0 (0%)	1 (4%)	2 (7%)	14 (52%)	10 (37%)	7.85	1.63
AFFECT - NEGATIVE							
17. I feel offended because I received this feedback.	0 (0%)	0 (0%)	2 (7%)	7 (26%)	18 (67%)	8.78	1.63
18. I feel angry because I received this feedback.	0 (0%)	0 (0%)	3 (11%)	2 (7%)	22 (81%)	9.11	1.63
19. I feel frustrated because I received this feedback.	0 (0%)	0 (0%)	3 (11%)	4 (15%)	20 (74%)	8.89	1.69
ACCOUNTABILITY							
20. It is my responsibility to apply feedback to improve my performance.	0 (0%)	0 (0%)	0 (0%)	10 (37%)	17 (63%)	8.81	1.21
FEEDBACK SELF-EFFICACY							
21. I believe that I have the ability to deal with feedback effectively.	0 (0%)	0 (0%)	1 (4%)	10 (37%)	16 (59%)	8.78	1.31

N = 27

Note: Negative phrased items were recoded so that the scale measured positive.

Survey 1: Qualitative Data

Most Important Take-Away from Receiving this Feedback

Participant responses fell mainly into two themes. The first was that they learned how others saw them, giving them another perspective. For example, one participant wrote, “Learning what my preceptor thought of me because he saw somethings that I was unaware of”. Another participant wrote: “The feedback allows you to know if you can properly grade and rate yourself. You can see if you view yourself and your skill the same as other people watching you”. The other common theme was that the MSF

improved awareness of areas needing improvement. Examples of participant responses include, “It helped me see the areas I need to improve on most especially areas that I couldn't identify myself”, and “The most important take away for this feedback is that I still have some areas to improve in this semester and with this feedback I know what I have to improve on.”

What Additional Feedback Should Be Included
Although many participants did not think additional feedback was needed, others suggested that more detailed feedback with examples or explanations would be useful. Examples of responses included, “I wish there were little comments or examples on how you could improve in a soft skill that needs improvement or just side comments in general on overall thoughts or what they did very well” and “ I think if there would have been examples of situations that contributed to some of the things that I scored lower in, it could be helpful rectifying that behavior.”

Why Feedback from Multiple Sources is Good or Beneficial
When asked “Why do you think getting feedback from multiple sources is good or beneficial (fair, useful, helpful, etc.)?, many participants recognized the potential to reduce bias and provide more equity in the evaluation. For example, participant responses included: “It paints a better overall picture from multiple individuals rather than one individual and therefore there is less potential bias or skewing,” “I think it is good because it probably provides a more fair representation of me,” and “It is beneficial because someone giving you the feedback may be biased. Multiple sources can help eliminate that.” Participants also recognized the benefit of getting feedback from sources in 2 distinct settings. One participant wrote “Each [rater] gets a different version of me so seeing it all together helps me decide on what aspects I need to work on the most and in which setting.” Another student wrote: “You get different points of view on yourself. We can view ourselves very differently from our professors and our preceptors.”.

Why Feedback from Multiple Sources is Bad or Not Beneficial
Most of the participants did not think that getting feedback from multiple sources was negative. One student wrote: “I don’t think it is bad or not beneficial. It is always important to receive feedback from people so you can grow and learn.” However, other participants recognized that bias could occur from either a strong or difficult relationship with an evaluator. One participant wrote: “I did not get along with my first preceptor and often felt I was treated unfairly and her feedback was bias based off our personal relationship versus my work ethic.”

How to Improve the Feedback Experience to Help Professional Development
Many participants liked the feedback experience and did not suggest changes. The most common suggestion was to include more specific feedback with the reports. One participant wrote: “Maybe a couple of notes from the teacher or preceptor about possible improvements and places that we did well in.”. Additionally some participants thought that smaller, more frequent evaluations would be beneficial. Examples of responses include: “Doing smaller evaluations more frequently can help me to see if areas I’ve sought to improve have actually improved”, and “Having these two to three times during the semester to see some trends or see if I am improving over the course of the semester.”

Final Perceptions of MSF
Survey 2: Quantitative Data
Useful & Easy to Understand
After a full term, 86% of participants considered the feedback to be useful (7.76 $\pm$ 1.41), 90% indicated that it was helpful (8.0 $\pm$ 1.27), and 90% thought the feedback was able to help them focus on areas they could improve (8.29 $\pm$ 1.23). No participants provided negative ratings, however, there were 2-3 neutral ratings for each question.

Willingness to Improve
The majority of participants (96%) indicated that they were willing to improve (8.91 $\pm$ 1.22) and 85% indicated that they were willing to invest effort into improving (8.05 $\pm$ 1.40). Seventy-two percent of participants indicated that they thought the feedback provided at the beginning of the semester was sufficient enough to create concrete goals (7.52 $\pm$ 1.97). All other participants provided neutral ratings on this question.

Progress towards Goals
As part of a class assignment, participants wrote two SMART goals based on their individual MSF report. At the end of the term, the majority of participants (76%) indicated that they made progress towards their goals (7.52 $\pm$ 1.54), with the other 24% providing neutral ratings (4-6). Seventy-two percent of participants indicated that they were successful reaching their goals (7.43 $\pm$ 1.72). No ratings below 4 were provided.

Usefulness of Assignments

As part of a class, participants completed an assignment that required them to reflect on the MSF they received and to write 2 SMART goals related to their self-identified growth areas. In the middle of the term, participants were asked to reflect on their SMART goals and to modify the goals if needed. In the final survey at the end of the term, participants were asked 4 questions about these assignments. Sixty-seven percent of participants indicated that they thought the soft-skills assignments helped them continue to focus on their goals (7.14 ± 1.65). Results were mixed when participants were asked if they would have still focused on their goals even if there were no assignments (5.57 ± 2.86). Forty-three percent provided ratings of 7 or above, 29% provided neutral ratings (4- 6), and 29% of participants gave a rating below 4. Fifty-eight percent of participants thought the assignments helped them achieve their goals (6.76 + 1.58), while the other 43% of participants provided neutral ratings. When asked if they would achieve their goals without the assignments, results were also mixed (6.0 ± 2.51). Thirty-eight percent of participants felt they would have achieved their goals without the assignments, 48% gave a neutral rating, and 15% of participants disagreed (i.e., thought the assignments helped them achieve their goals).

Table 5: Quantitative Data from Survey 2: Final Perceptions of MSF

	Fully Disagree		Neutral		Fully Agree		
	0-1	2-3	4-6	7-8	9-10	M	SD
USEFULNESS / EASY TO UNDERSTAND							
1. After a full term, I consider this feedback useful.	0 (0%)	0 (0%)	3 (14%)	13 (62%)	5 (24%)	7.76	1.41
2. After a full term, I consider this feedback helpful.	0 (0%)	0 (0%)	2 (10%)	13 (62%)	6 (29%)	8.00	1.27
3. After a full term, The feedback helped me focus on areas I could improve.	0 (0%)	0 (0%)	2 (10%)	12 (57%)	7 (33%)	8.29	1.23
WILLINGNESS							
4. I was willing to improve my performance based on the feedback I received.	0 (0%)	0 (0%)	1 (5%)	6 (29%)	14 (67%)	8.91	1.22
5. I was willing to invest a lot of effort in improving.	0 (0%)	0 (0%)	3 (14%)	11 (52%)	7 (33%)	8.05	1.40
6. The feedback at the beginning of the semester was sufficient enough for me to create concrete goals.	0 (0%)	0 (0%)	6 (29%)	9 (43%)	6 (29%)	7.52	1.97
GOALS							
7. I was successful at making progress towards my goals.	0 (0%)	0 (0%)	5 (24%)	12 (57%)	4 (19%)	7.52	1.54
8. I was successful at reaching my goals.	0 (0%)	0 (0%)	6 (29%)	10 (48%)	5 (24%)	7.43	1.72
ASSIGNMENTS							
9. The soft-skills assignments helped me continue to focus on my goals.	0 (0%)	0 (0%)	7 (33%)	10 (48%)	4 (19%)	7.14	1.65
10. The soft-skills assignments were not necessary for me to continue to focus on my goals (i.e., I would have done this even if we didn't have the assignments).	1 (5%)	5 (24%)	6 (29%)	6 (29%)	3 (14%)	5.57	2.86
11. The soft-skills assignments helped me achieve my goals.	0 (0%)	0 0%)	9 (43%)	10 (48%)	2 (10%)	6.76	1.58
12. I would have achieved my goals without the assignments.	1 (5%)	2 (10%)	10 (48%)	5 (24%)	3 (14%)	6.00	2.51

N = 21

Note: Negative phrased items were recoded so that the scale measured positive.

Qualitative Data from Survey 2: Final Perceptions of MSF

Results from the second survey were similar to the first survey (initial impressions of MSF). Participants noted that they learned how others saw them in relation to how they see themselves, and noted that the MSF they received provided awareness of the areas they needed to improve. Participants appreciated the opportunity to get feedback from different perspectives and saw this feature as beneficial. Most of the participants either commented that no additional information was needed or that more detailed feedback would be helpful. Please see Table 6 for results and a comparison to survey 1.

Table 6: Survey 1 and 2 Qualitative Data

Research Question	Theme	Survey 1 Frequency (%)	Survey 2 Frequency (%)
1. What was the most important take-away from receiving this feedback?	• Self Perception / Others Perception	14 (48%	10 (50%)
	• Awareness of opportunities for improvement	14 (48%)	10 (50%)
	• Other	1 (3%)	0 (0%)
2. Why do you think that getting feedback from multiple sources is good or beneficial (fair, useful, helpful, etc.)?	• Reduce bias / Equity in evaluation	16 (59%)	7 (35%)
	• Different perspectives	11 (41%)	12 (60%)
	• Awareness of opportunities for improvement	0 (0%)	4 (20%)
	• Other	10 (37%)	2 (10%)
3. Why do you think that getting feedback from multiple sources is bad or not beneficial (unfair, useless, unhelpful)?	• Getting feedback from multiple sources is beneficial	8 (30%)	11 (55%)
	• Bias from either a strong or difficult relationship with an evaluator	7 (26%)	5 (25%)
	• Other	11 (41%)	4 (20%)
4. What additional feedback related to soft skills do you wish was included?	• I don't wish anything else was included	12 (44%)	9 (45%)
	• More detailed feedback with suggestions	11 (41%)	8 (40%)
	• Other	3 (11%)	1 (5%)
5. How can the feedback experiences be improved in order to help you develop as a professional?	• More specific feedback	14 (52%)	6 (30%)
	• I like it as is	6 (22%)	7 (35%)
	• Timing / More frequent evaluations	4 (15%)	4 (20%)
	• Other	2 (7%)	3 (15%)

DISCUSSION

This study examined student perceptions of MSF and the process used to promote reflection and positive change. Overall, the process and the feedback were viewed favorably. The feedback was considered fair, useful, and easy to understand. Many participants recognized the potential of MSF to reduce bias and provide more equity in their evaluation. The majority of participants accepted the feedback and indicated that the results were consistent with the feedback they had received during the previous semester. Studies have found that feedback is perceived as useful when individuals consider the raters to be familiar with their work.[26,39] In the case of this study, participants were rated by preceptors and course instructors who had observed relevant behaviors for approximately 15 weeks and could therefore be considered familiar with their work. According to Sargeant et al[26] in addition to participants being more likely to perceive feedback as useful they are also more likely to consider behavior changes when they feel the rater is credible.

Participants recognized that the MSF allowed them to learn how others saw them and compare this information to how they saw themselves. This is an important part of learning how their behaviors are perceived by others and improving awareness of areas where self-perceptions may not be accurate.[18] Sullivan & Thiessan stated that students may be "labeled as unprofessional when the actual issue may be lack of knowledge about the nuances of professionalism in different contexts."[40(p3)] It is not uncommon for there to be a gap between self-ratings and the ratings of evaluators such as employers.[41] However, it can hinder professional growth if an individual over-estimates or under-estimates their soft skills.[42] In this study, differences between student self-ratings and instructor and preceptor ratings were used to highlight areas in need of attention.

Studies have shown positive outcomes when the MSF process includes facilitation of self-reflection, goal setting, and follow-up opportunities.[31,32,35] Participants in this study had the opportunity to reflect, set goals, and complete assignments designed to assist with focus and performance improvement motivation. Student opinions were mixed on the necessity of these activities. This could be due to the high levels of accountability and self-efficacy in this population. Athletic training students participating in this study felt it was their responsibility to improve. Most participants felt willing to improve and believed they could deal with the feedback they received effectively. This aligns with previous studies that have shown that a personal factors such as a sense of accountability and a belief that improvement is possible can positively influence motivation and effort to change.[30-32] Individuals

with high self-efficacy are more likely set goals and sustain effort towards achieving those goals.[34] Thus, some participants in this study may have felt confident that they would undertake the necessary actions to improve without the required reflection and goal setting assignments.

Emotional responses can influence how students reflect on and use feedback.[35,43] Receiving feedback on soft skills is personal and may impact self-esteem and pride.[45] Most of the participants in this study had a positive emotional response to the feedback they received. However negative responses to MSF are possible and research has suggested that they are ways to mitigate the effects.[23,31,35,45] Several studies have suggested that individuals receiving negative feedback or feedback that does not match their self-perceptions may benefit from different following up activities, such as meetings with a mentor who help manage the response and facilitate improvement.[23,31,35,45] One study reported that perceptions of usefulness increased after one-on-one sessions with students in a graduate business administration program.[23] Overeem et al[31] found that physicians who discussed negative feedback with others usually no longer found the feedback to be problematic. It is important to understand the possible responses to MSF and to be prepared with appropriate support that allows for reflective discussions about surprising feedback, clarifying content, and coaching.[45]

Nearly all participants indicated a willingness to improve and invest effort into their improvement based on the feedback they received. This is consistent with previous research that has shown that constructive feedback contributes to student learning and motivation and that positive perception of feedback is associated with willingness to improve.[19-21,46] Participants generally viewed the feedback they received as sufficient enough to create concrete goals. The majority thought the MSF was able to help them focus on areas they could improve. Additionally, at the end of the term, most of the participants felt they had made progress towards their goals and/or had reached their goals. However, suggestions were made that the addition of specific comments and examples could improve the feedback they received. This is supported in the literature. Research has shown that narrative comments from credible raters can improve acceptance of feedback.[39,47] Overeem et al[47] suggested that comments should include specific examples and concrete tips. In a study of physicians receiving multisource feedback, participants suggested that reviewer comments and examples might be especially important in areas where the scores were at the extremes of the scale.[35]

Limitations & Future Research

The results of this study should be viewed within the context of its limitations. The use of a convenience sample and single-institution design is a limitation of this study. All participants were from the author's home institution. Although responses were anonymous, bias may result due to the participant recruitment method. Thus, the generalizability of findings may be limited. If this process is to be adopted by other athletic training programs, research should be conducted to confirm findings. There are research questions that could be explored in future research such as: would the outcomes of multi-source feedback be improved if this process was used multiple times across the curriculum, and would the inclusion of specific written feedback or comments from preceptors and instructors improve student perceptions of satisfaction and result in enhanced professional growth.

CONCLUSION

The aim of MSF is to increase self-awareness of performance. Findings suggest that athletic training students in this study found the MSF they received to be fair and useable. They had a positive emotional response to the feedback and were willing to work towards improvement. Participants recognized benefits from receiving MSF such as reducing assessment bias and improving awareness of areas needing attention. It is important to note that student opinions remained favorable at the end of the semester after they had time to consider the feedback and how to improve performance. Preliminary findings indicate that the ATS-SSA Instrument can provide worthwhile and beneficial feedback to athletic training students. Although more research is needed, findings support the continued use of MSF to evaluate soft skills and support improvement.

REFERENCES

1. Donnon T, Al Ansari A, Al Alawi S, et al. The reliability, validity, and feasibility of multisource feedback physician assessment: a systematic review. Acad Med. 2014:89(3):511–516. doi: 10.1097/ACM.0000000000000147
2. Ferguson J, Wakeling J, Bowie P. Factors influencing the effectiveness of multisource feedback in improving the professional practice of medical doctors: a systematic review. BMC Med Educ. 2014;14:76. doi: 10.1186/1472-6920-14-76
3. Lockyer J. Multisource feedback in the assessment of physician competencies. J Contin Educ Health Prof. 2003;23(1):4–12. doi: 10.1002/chp.1340230103
4. Berk RA. Using the 360 degrees multisource feedback model to evaluate teaching and professionalism. Med Teach. 2009;31(12):1073–1080. doi: 10.3109/01421590802572775
5. Sureda E, Chacón-Moscoso S, Sanduvete-Chaves S, Sesé A. A Training intervention through a 360° multisource

feedback model. Int. J. Environ. Res. Public Health 2021;18:9137. doi: 10.3390/ijerph18179137
6. Caretta-Weyer H, Kraut, AS, Kornegay JG, Yarris LM. The view from over here: A framework for multi-source feedback. J Grad Med Educ. 2017;9(3):367–368. doi: 10.4300/JGME-D-17-00200.1
7. Ten Cate O, Sargeant J. Multisource feedback for residents: how high must the stakes be? J Grad Med Educ. 2011;3(4):453–455. doi: 10.4300/JGME-D-11-00220.1
8. Andrews JJW, Violato C, Al Ansari A, Donnon T, Pugliese G. Assessing psychologists in practice: Lessons from the health professions using multisource feedback. Prof Psychol Res Pract. 2013;44:193–207. doi: 10.1037/a0033073
9. Cormack CL, Jensen E, Durham CO, Smith G, Dumas B. The 360-degree evaluation model: A method for assessing competency in graduate nursing students. A pilot research study. Nurse Educ Today. 2018;64:132–137. doi: 10.1016/j.nedt.2018.01.027
10. Bates CC, Morgan DN. Literacy leadership: the importance of soft skills. Read Teach. 2018;72(3):412–415. doi: 10.1002/trtr.1755
11. Fernández-Arias P, Antón-Sancho Á, Vergara D, Barrientos A. Soft skills of American university teachers: Self-concept. Sustainability. 2021;13(22):12397. doi: 10.3390/su132212397
12. Majid S, Eapen CM, Ei Mon Aung, Oo KT. The importance of soft skills for employability and career development: Students and employers' perspectives. IUP J Soft Skills. 2019;13(4):7-39.
13. South Dakota Department of Education. "Soft Skills." https://doe.sd.gov/CTE/softskills.aspx Accessed May 1, 2022.
14. Succi C, Canovi M. Soft skills to enhance graduate employability: comparing students and employer's perceptions. Studies in Higher Ed. 2020;45(9):1834-1847. doi: 10.1080/03075079.2019.1585420
15. Robles MM. Executive Perceptions of the Top 10 soft skills needed in today's workplace. Bus Commun Q. 2012;75(4):453-465. doi: 10.1177/108056991246040
16. AbuJbara NK, Worley JA. Leading toward new horizons with soft skills. On Horizon. 2018;26(3):247-259. doi: 10.1108/oth-10-2017-0085
17. Davies H, Archer J, Bateman A, Dewar S, Crossley J, Grant J, Southgate L. Specialty-specific multi-source feedback: assuring validity, informing training. Med Edu. 2008;42:1014–1020. doi: 10.1111/j.1365-2923.2008.03162.x
18. Sargeant J, Armson H, Chesluk B, Dornan T, Eva K, Holmboe E, Lockyer J, Loney E, Mann K, van der Vleuten C. The processes and dimensions of informed self-assessment: A conceptual model. Acad Med. 2010;85:1212–1220. doi: 10.1097/ACM.0b013e3181d85a4e
19. Mulliner E, Tucker M. Feedback on feedback practice: perceptions of students and academics. Assess Eval High Educ 2017;42:266–88. doi: 10.1080/02602938.2015.1103365
20. Shute VJ. Focus on formative feedback. Rev Educ Res. 2008;78:153–89. doi: 10.3102/0034654307313795
21. Price M, Handley K, Millar J, et al. Feedback : all that effort, but what is the effect? Assess Eval High Educ. 2010;35:277–89. doi: 10.1080/02602930903541007
22. Archer JC. State of the science in health professional education: effective feedback. Med Edu. 2010;44:101–8. doi: 10.1111/j.1365-2923.2009.03546.x
23. Brett JF, Atwater L. 360˚ Feedback: Accuracy, reactions, and perceptions of usefulness. J Appl Psychol. 2001;86(5):930-942. doi: 10.1037/0021-9010.86.5.930
24. Poulos, A & Mahony, M.J. (2008). Effectiveness of feedback: The students' perspective. Assess Eval High Educ. 2008;33(2),143-154. doi: 10.1080/02602930601127869
25. Nowack KM, Mashihi S. Evidence-based answers to 15 questions about leveraging 360-degree feedback. Consult Psychol J: Practice and Research 2012;64:157–82. doi: 10.1037/a0030011
26. Sargeant J, Mann K, Ferrier S. Exploring family physicians' reactions to multisource feedback: Perceptions of credibility and usefulness. Med Educ. 2005;39:497–504. doi: 10.1111/j.1365-2929.2005.02124.x
27. Eva KW, Armson H, Holmboe E, et al. Factors influencing responsiveness to feedback: On the interplay between fear, confidence, and reasoning processes. Adv Health Sci Educ. 2012;17(1):15-26. doi: 10.1007/s10459-011-9290-7
28. Graham B. Providing effective formative feedback. BU J Grad Studies in Educ. 2015;7(1):35-39.
29. Sargeant J, Mann K, Sinclair D, et al. Challenges in multisource feedback: intended and unintended consequences. Med Educ. 2007;41(6):581–596. doi: 10.1111/j.1365-2923.2007.02769.x
30. London M, Smither J. Feedback orientation, feedback culture, and the longitudinal performance management process Human Resource Management Review. 2002;12:81-100. doi: 10.1016/S1053-4822(01)00043-2
31. Overeem K, Wollersheim H, Driessen E, Lombarts K, van de Ven G, Grol R, Arah O. Doctors' perceptions of why 360-degree feedback does (not) work: A qualitative study. Med Educ. 2009;43:874–882. doi: 10.1111/j.1365-2923.2009.03439.x
32. Smither JW, London M, Reilly RR. Does performance improve following multisource feedback? A theoretical model, meta-analysis, and review of empirical findings. Personnel Psychol. 2005;58:33-66. doi: 10.1111/j.1744-6570.2005.514_1.x

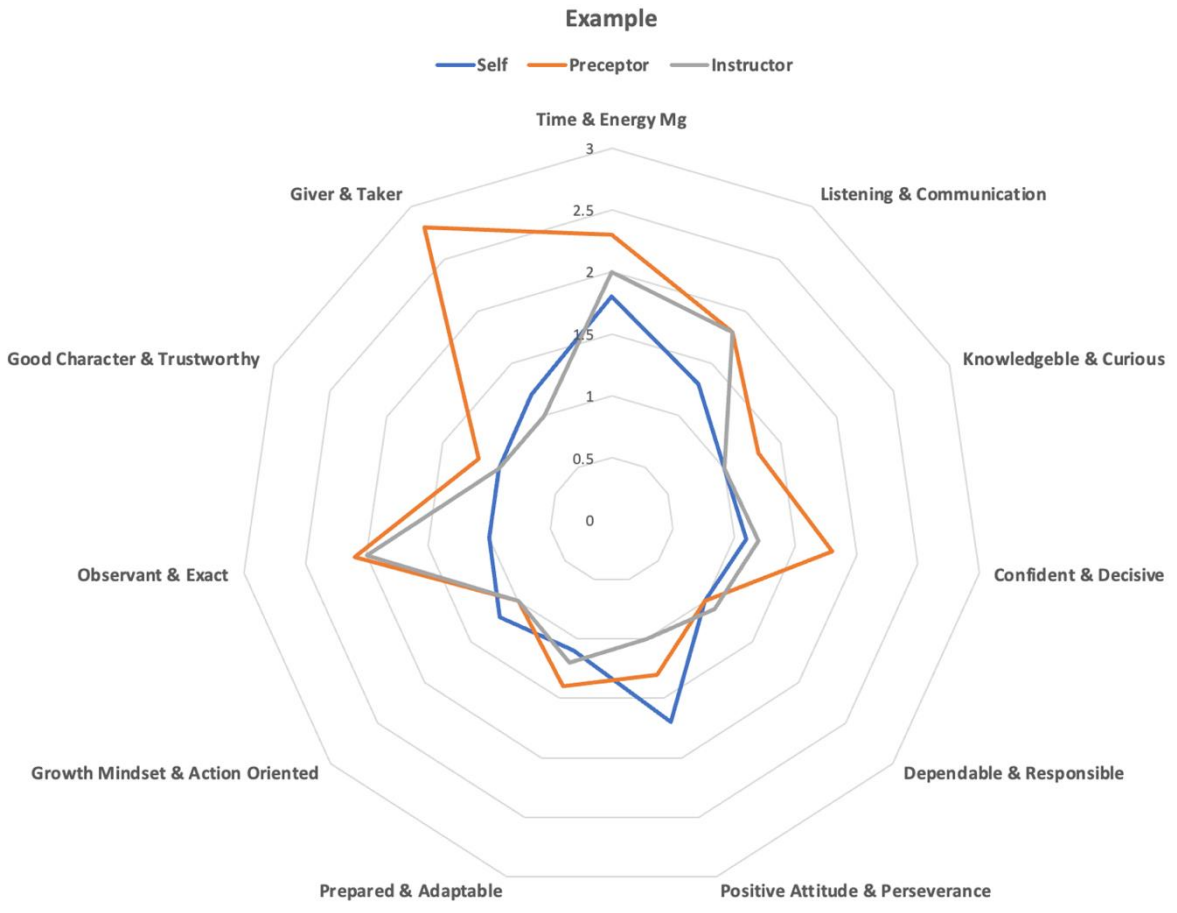
33. Schunk DH. Self-efficacy, motivation, and performance. J Appl Sport Psychol. 1995;7(2):112-137. doi: 10.1080/10413209508406961
34. VandeWall D, Cron W, Slocum J. (2001). The role of goal orientation following performance feedback. J Appl Psychol. 2001;86:629–640. doi: 10.1037/0021-9010.86.4.629
35. Sargeant J. Multi-source feedback for physician learning and change. 2006. Accessed March 18, 2022.https://search-ebscohost-com.xavier.idm.oclc.org/login.aspx?direct=true&db=edsoai&AN=edsoai.on1050385279&site=eds-live&scope=site36. 36. Thomas D. A general inductive approach for qualitative data analysis. Am J Eval. 2006;27:237-246. doi: 10.1177/1098214005283748
36. von Elm E, Altman DG, Egger M, Pocock SJ, Gøtzsche PC, Vandenbroucke JP. The strengthening the reporting of observational studies in epidemiology (STROBE) statement: guidelines for reporting observational studies. Ann Intern Med. 2007;147(8):573– 577. doi: 10.7326/0003-4819-147-8-200710160-00010
37. Strijbos JW, Narciss S, Dünnebier K. Peer feedback content and sender's competence level in academic writing revision tasks: Are they critical for feedback perceptions and efficiency? Learning and Instruction. 2010;20(4):291–303. doi: 10.1016/j.learninstruc.2009.08.008
38. Burford B, Illing J, Kergon C, Morrow G, Livingston M. User perceptions of multi-source feedback tools for junior doctors. Med Educ. 2010;44:165–176. doi: 10.1111/j.1365-2923.2009.03565.x
39. Sullivan TM, Thiessen AK. Occupational therapy students' perspectives of professionalism: An exploratory study. Open J Occup Ther. 2015;3(4). doi: 10.15453/2168-6408.1154
40. Tsirkas K, Chytiri A-P, Bouranta N. The gap in soft skills perceptions: A dyadic analysis. Education + Training. 2020;62(4):357-377. doi: 10.1108/ET-03-2019-0060
41. Calhoun AW, Rider EA, Peterson E, Meyer EC. Multirater feedback with gap analysis: an innovative means to assess communication skill and self-insight. Patient Educ Couns. 2010;80:321-326. doi: 10.1016/j.pec.2010.06.027
42. Sargeant J, Mann K, Sinclair D, van der Vleuten C, Metsemakers J. Understanding the influence of emotions and reflection upon multi-source feedback acceptance and use. Adv Health Sci Educ Theory Pract. 2008;13(3):275–88. doi: 10.1007/s10459-006-9039-x
43. Ashford SJ, Blatt R, VandeWalle D. Reflections on the looking glass: a review of research on feedback- seeking behaviour in organizations. J of Manage. 2003;29(6):773-99. doi: 10.1016/S0149-2063_03_00079-5
44. Sargeant J, Mcnaughton E, Mercer S, Murphy D, Sullivan P, Bruce DA. Providing feedback: Exploring a model (emotion, content, outcomes) for facilitating multisource feedback. Medical Teacher. 2011;33(9):744-749. doi: 10.3109/0142159X.2011.577287
45. Strijbos JW, Pat-El, R, Narciss, S. Structural validity and invariance of the Feedback Perceptions Questionnaire. Stud Educ Eval. 2021;68:N.PAG. doi: 10.1016/j.stueduc.2021.100980
46. Overeem K, Lombarts MJMH, Arah OA, Klazinga NS, Grol RPTM, Wollersheim HC. Three methods of multi-source feedback compared: A please for narrative comments and coworkers' perspectives. Med Teach. 2010;32(2):141-147. doi: 10.3109/01421590903144128

Appendix A: Sample Individualized Soft Skills Report

SOFT SKILLS REPORT

	Self	Preceptor	Professor
Time & Energy Management	1.83	2.33	2.00
Listening & Communication	1.33	1.80	1.83
Knowledgeable & Curious	1.00	1.33	1.00
Confident & Decisive	1.15	1.85	1.20
Dependable & Responsible	1.00	1.00	1.08
Positive Attitude & Perseverance	1.70	1.33	1.00
Prepared & Adaptable	1.08	1.40	1.15
Growth Mindset & Action Oriented	1.25	1.00	1.00
Observant & Exact	1.00	2.10	2.00
Good Character & Trustworthy	1.00	1.18	1.00
Giver & Taker	1.15	2.85	1.00

Scale: 1 = Always 2 = Mostly 3 = Sometimes 4 = Rarely 5 = Never



Appendix B: Assignment 1 and Assignment 2

Assignment 1: Reflection on results in MSF report and creation of SMART goals.
1. What is your overall general impression of the feedback?
2a. What categories (if any) showed a notable difference in scores between you and either your professor(s) and/or your preceptor(s).
2b. Why do you think there was a difference? (i.e. why might you rate yourself notably lower or higher than your preceptor)?
3a. List the categories where all 3 sources of feedback were close to 1.0.
3b. Consider 2 of the areas of strength and provide an explanation.
4a. List the categories that would be considered opportunities for growth (scores closer to 3.0 - or just your highest scores).
4b. Consider 2 of the categories you listed. What changes could you make to improve in this area? How could you be more consistent in the behaviors that demonstrate competence in this area?
Note: Read over the explanations for each category on the previous page for help in targeting specific behaviors.

Assignment 2: Reflection on SMART goals with an opportunity to modify.
1. In the last 2 weeks - how did you do on making progress on your goal?
2. Did you do what you stated in your goals?
3. What were the barriers (if any) to taking action towards reaching your goal?
4. Was your goal specific enough? / What adjustments need to be made? - or alternatively - do you need to swap a goal for a different and more impactful one?
5. If your goals are too vague or too big - how can you make them more specific or smaller?
6. If needed: Re-write or adjust your goals. (Note: If your goals are good, keep them).