SAINT LOUIS UNIVERSITY.

Program-Level Assessment: Annual Report

Program Name (no acronyms): Magnetic Resonance Imaging	Department: Clinical Health Sciences
Degree or Certificate Level: UG	College/School: Doisy College of Health Sciences
Date (Month/Year): September 2023	Assessment Contact: Marcey Kennedy

In what year was the data upon which this report is based collected? Ay 2022-023

In what year was the program's assessment plan most recently reviewed/updated? Ay 2021-2022

Is this program accredited by an external program/disciplinary/specialized accrediting organization or subject to state/licensure requirements? Yes

If yes, please share how this affects the program's assessment process (e.g., number of learning outcomes assessed, mandated exams or other assessment methods, schedule or timing of assessment, etc.):

1. Student Learning Outcomes

Which of the program's student learning outcomes were assessed in this annual assessment cycle? (Please provide the complete list of the program's learning outcome statements and **bold** the SLOs assessed in this cycle.)

PLO #1 Students will demonstrate the Jesuit mission by caring for the whole patient.
PLO #2 "Students will demonstrate effective communication skills when interacting in the MRI profession."
PLO #3 "Students will apply critical reasoning as it relates to the MRI setting."
PLO #4 "Students will demonstrate application of professional knowledge."
PLO #5 Students will be able to recognize ethical practices in the health care setting.

2. Assessment Methods: Artifacts of Student Learning

Which artifacts of student learning were used to determine if students achieved the outcome(s)? Please describe the artifacts in detail, identify the course(s) in which they were collected, and if they are from program majors/graduates and/or other students. Clarify if any such courses were offered a) online, b) at the Madrid campus, or c) at any other off-campus location.

All MRI student learning artifacts are from The MRI program majors only.

PLO #1
MRI-4300 Clinical Practicum I, Final Clinical Rotation Evaluations
MRI-4700 Clinical Practicum II, Final Clinical Rotation Evaluations and Critical Reflection Assignment #1

PLO #5
MRI-4350 Patient Care & MRI Safety/In-class Ethics Exercise
MRI-4300 Clinical Practicum I, Final Clinical Rotation Evaluations
MRI-4700 Clinical Practicum II, Final Clinical Rotation Evaluations and Critical Reflection Assignment #3

3. Assessment Methods: Evaluation Process

What process was used to evaluate the artifacts of student learning, and by whom? Please identify the tools(s) (e.g., a rubric) used in the process and **include them in/with this report document** (please do not just refer to the assessment plan).

PLO #1 Students will demonstrate the Jesuit mission by caring for the whole patient
MRI-4300 Clinical Practicum I, Final Clinical Rotation Evaluations (Previous course name **MRI-4410**)
MRI-4700 Clinical Practicum II, Final Clinical Rotation Evaluations and Critical Reflection Assignment #1 (Previous course name **MRI-4910**).
The MRI curriculum was changed to begin for the graduating class of 2023. This new curriculum changed the practicum to begin in the fall of the senior year with students in the clinical setting Monday, Wednesday and Friday (**MRI-4300)** and MRI coursework on Tuesday and Thursday . In the spring of the senior year the students are in the clinical setting Monday Through Friday (**MRI-4700)**. This change enabled the program to fulfill completion by getting rid of the summer practicum.

The Clinical Practicum I and II are completed at clinical affiliate sites in the St. Louis Metropolitan area. The rotations are supervised and evaluated by the Clinical Preceptor at each site. The evaluation forms completed include Mid and Final Rotation Evaluations (see Appendix for evaluation forms). The MRI curriculum was changed to begin for the graduating class of 2023

Data was collected from student clinical rotation evaluations over the fall semester of 2022 and spring semester of 2023. according to the program-level assessment plan. The Program Director reviewed and assigned rankings to the evaluations from the clinical preceptors using the corresponding assessment rubrics.

The Mid Rotation Evaluation includes questions regarding responsiveness to feedback from the Preceptor and registered technologists, demonstrating good patient care skills, and MRI safety. The evaluation is rated by 'Y" (yes) or "N" (no) .

The Final Rotation Evaluation includes specific statements including Demonstrates empathy in professional interactions, Helps technologist with patients when special needs arrive, Refrains from violating patients' rights (confidentiality, privacy) and a specific section regarding "PATIENT INTERACTION". This form also refers to the "Clinical Imaging Grading and Evaluation" policy. The students are given a score of 3-(always), 2-(sometimes) 1-(rarely), or 0-(never). Scores are tallied and become part of the practicum grade. These forms are collected and evaluated by the MRI Program Director

at the end of each clinical rotation to assess rotation completion and identify a 2 –(sometime)s or 3 –(always) for assurance of meeting.

Critical Reflection Assignments are utilized as part of the Clinical Practicum and this PLO. A change in this assignment was initiated beginning with the graduating class of 2022. Each Critical Reflection was given a prompt to respond to a specific topic. For this PLO, the first reflection is utilized with the prompt of Jesuit Values: What are Jesuit Values? And How have they seen "Cura Personalis" reflected in the clinical setting. This is another piece to the final practicum grade.

PLO #5 Students will be able to recognize ethical practices in the health care setting.
MRI-4350 Patient Care & MRI Safety/In-class Ethics Exercise
MRI-4300 Clinical Practicum I, Final Clinical Rotation Evaluations
MRI-4700 Clinical Practicum II, Final Clinical Rotation Evaluations and Critical Reflection Assignment #3

MRI-4350 Patient Care & MRI Safety: In-class Ethics Exercise and Honor code violations.
The ARRT Standards of Ethics in Practice was reviewed with students and then posed ARRT scenarios of conduct. Lively discussion followed, with all students participating. The discussion was reviewed by MRI faculty and led to the students achieving at minimum, the "knowledge" ranking. Course exam content included ethics principles as well as Honor Code violations. The exam included a section for students to name at least one code violation. The program director gathered the responses from the exams with students.

MRI-4300 and **MRI-4700** Data was collected from student clinical rotation evaluations over the spring and summer semesters of 2021 according to the program-level assessment plan. The Program Director reviewed and assigned rankings to the evaluations from the clinical preceptors using the corresponding assessment rubrics.

The Mid Rotation Evaluation includes questions regarding the students' work ethic and responsibility. The evaluation is rated by 'Y" (yes) or "N" (no)

The Final Rotation Evaluation includes specific topics including student attitude, punctuality, initiative and responsibility thus indicating their own ethical practices. The students are given a score of 3-(always), 2-(sometimes) 1-(rarely), or 0-(never). Scores are tallied and become part of the practicum grade. These forms are collected and evaluated by the MRI Program Director at the end of each clinical rotation to assess rotation completion and identify a 2 –(sometime)s or 3 –(always) for assurance of meeting requirements.

The Final Evaluation Form also includes a section for the Clinical Preceptor to evaluate completion of the clinical rotation and allows for comments. The form includes ranking student performance as (Exceeded requirements, Satisfactorily met requirements, Minimally met requirements, or Did not meet requirements.)

MRI-4700 Critical Reflection Assignment #3

The third Critical Reflection prompt was Ethical Dilemma: have they witnessed an ethical dilemma or been involved in one personally during your time in the clinic? If not, please provide thoughtful comments on what good and bad ethics may be and how they would affect the profession.

4. Data/Results

What were the results of the assessment of the learning outcome(s)? Please be specific. Does achievement differ by teaching modality (e.g., online vs. face-to-face) or on-ground location (e.g., STL campus, Madrid campus, other off-campus site)?

PLO #1
MRI-4300 Clinical Practicum I, Final Clinical Rotation Evaluations
MRI-4700 Clinical Practicum II, Final Clinical Rotation Evaluations

The Mid Rotation Evaluation regarding responsiveness to feedback yielded all "y" (yes) responses for each student for every clinical rotation.

The Final Rotation Evaluation for students demonstrating the Jesuit mission by caring for the whole patient yielded **a** 95% of "3" and 5% of "2", indicating successful completion.

The Final Evaluation Form section for the Clinical Preceptor to evaluate completion of the clinical rotation students received "Exceeded requirements" or Satisfactorily met requirements" for each clinical rotation.

The first reflection is worth 10 points, the average score of 9.3 reveals successful completion. The only points missed were due to gathering facts and evidence related to the issue from a variety of sources and incorporating other people's opinions. Explanation of what was needed in these sections was reviewed with the students to aid in the next reflections.

PLO #5 Students will be able to recognize ethical practices in the health care setting.
MRI-4350 Patient Care & MRI Safety/In-class Ethics Exercise
MRI-4300 Clinical Practicum I, Final Clinical Rotation Evaluations
MRI-4700 Clinical Practicum II, Final Clinical Rotation Evaluations and Critical Reflection Assignment #3

MRI-4350 The use of the ARRT ethical situation scenarios, along with the Standards of Ethics, produced lively discussion. Success of progression to "synthesis" to students recognizing ethical behavior was verified by the discussion and success on the exam content.

MRI-4300 and **MRI-4700** The Mid Rotation Evaluation regarding the students' work ethic yielded all "y" (yes) responses for each student for every clinical rotation.

The Final Rotation Evaluation for students demonstrating their own attitude, punctuality, initiative and responsibility thus indicating their own ethical practices yielded **an** 89% of "3" and 11% of "2", indicating successful completion.

The critical reflection papers show progression in writing as well as critical thinking (attached rubric and directions). The papers on ethical/unethical behavior were very rich and thorough. They showed progression to "synthesis". The third critical reflection (Ethical Dilemma) is worth 15 points. The average score of 14 indicates successful completion.

5. Findings: Interpretations & Conclusions

What have you learned from these results? What does the data tell you? Address both a) learning gaps and possible curricular or pedagogical remedies, and b) strengths of curriculum and pedagogy.

PLO #1
MRI-4300 Clinical Practicum I, Final Clinical Rotation Evaluations
MRI-4700 Clinical Practicum II, Final Clinical Rotation Evaluations

The clinical evaluations completed by the Clinical Preceptors assists in rating the students for "cura personalis" during their practicum. The preceptors are present and observe the student actions. This verifies the students consistently meet this benchmark.

PLO #5
MRI-4350 Patient Care & MRI Safety/In-class Ethics Exercise
MRI-4300 Clinical Practicum I, Final Clinical Rotation Evaluations
MRI-4700 Clinical Practicum II, Final Clinical Rotation Evaluations and Critical Reflection Assignment #3

The ethics scenarios discussion was successful. The program director looked at ways to more directly analyze data to show that the students recognize specific practices. The Patient Care & MRI Safety class was updated for the class of 2023 changing the exam formats to include more critical thinking and specific questions regarding ethics and ethical practices. The students completed these questions with thoughtful answers, aiding in the success of them being able to recognize ethical practices.

The critical reflections surround ethical/non-ethical behavior that was observed. For the graduating class of 2022, the Critical Reflection instructions were changed from "suggested topics" to "specific topics" for each reflection, one of these being writing about an ethical dilemma. This is to systematically gather information from all students on synthesis of ethical behavior. This also ties ethics from didactic to patient safety to practical use and acknowledgement. These proved to be thoughtfully written reflections.

6. Closing the Loop: Dissemination and Use of Current Assessment Findings

A. When and how did your program faculty share and discuss the results and findings from this cycle of assessment?

The Program Director discusses the results and findings with faculty within the Clinical Health Sciences department. The Clinical Health Sciences department holds dedicated meetings for assessment.

The MRI Advisory Board is a great resource for the MRI program. This board is interactive and involved with participating in grading student capstone presentations and with suggestions on updates or changes to consider with the program. The assessments are shared with the MRI Advisory Boad during the board meetings.

B. How specifically have you decided to use these findings to improve teaching and learning in your program? For example, perhaps you've initiated one or more of the following:

Changes to the Curriculum or Pedagogies	• Course content • Teaching techniques • Improvements in technology • Prerequisites	• Course sequence • New courses • Deletion of courses • Changes in frequency or scheduling of course offerings
Changes to the Assessment Plan	• Student learning outcomes • Artifacts of student learning • Evaluation process	• Evaluation tools (e.g., rubrics) • Data collection methods • Frequency of data collection

Please describe the actions you are taking as a result of these findings.

A substantive change for the MRI curriculum was completed, effective for the graduating class of 2023. The program director also completed an interim report of the program for the JRCERT (the accrediting body for the program in August of this year 92023). These yielded opportunities for assessment improvement. The goal is to update the current program assessment plan using the college assessment plan recommendations within the next academic year, as well as resources provided by JRCERT Assessment Corner. One focus will be evaluating student outcomes from the new curricular sequence. This will provide details for revised learning outcomes.

If no changes are being made, please explain why.

7. Closing the Loop: Review of Previous Assessment Findings and Changes

A. What is at least one change your program has implemented in recent years **as a result of previous assessment data**?

The MRI program has a new curriculum sequence. The curriculum was changed due to

1. Direct response from students (wanting to be in MRI courses prior to their "senior" year (this from course evaluations).

2. The University wanting to eliminate the summer clinical practicum (previously at zero credit but would have then been 8-10 credits).
3. The clinical sites wanting the students to be complete the program in the spring to have new technologists begin training in the summer.

The DCHS Program-Level Assessment Report for 2023 has included more details on the artifacts used specifically with how the artifacts were used and how results were evaluated. These were made from the Program-Level Assessment Report Feedback Form from 2019-2020 and 2021-2022.

B. How has the change/have these changes identified in 7A been assessed?

All 2023 graduates from the new curricular sequence have taken the registry exam and passed their first attempt and are employed.

C. What were the findings of the assessment?

There is a need for improved assessment with more detailed questions and artifacts to assess learning.

D. How do you plan to (continue to) use this information moving forward?

The MRI program continues to utilize course evaluations by the students, the Advisory Board Committee, the JRCERT and DCHS recommendations for accurate assessment and program improvement. The plan is to update the current program assessment plan using the college assessment plan recommendations within the next academic year, as well as resources provided by JRCERT Assessment Corner.

2021-2023 MRI **MRI-4300** Clinical Practicum I, Final Clinical Rotation Evaluations
MRI-4700 Clinical Practicum II, Final Clinical Rotation Evaluations

Saint Louis University
Magnetic Resonance Imaging Program
Mid & Final Rotation Evaluations

Student Name: _____ **Date:** _____ **Rotation 1 2 3**

Mid Rotation Evaluation

	(circle one)	
1. The student understands the objectives of the rotation.	Y	N
2. The student's understanding of exams coincides with the level of the rotation.	Y	N
3. The student is actively pursing the requirements to complete the rotation.	Y	N
4. The student is displaying motivation in performing procedures.	Y	N
5. The student is responsive to feedback and constructive criticism from staff.	Y	N
6. The student is demonstrating good patient care skills.	Y	N
7. The student is practicing under the safety guidelines of the clinical rotation.	Y	N
8. The student keeps busy when not doing procedures.	Y	N
9. The student arrives at assigned area of work on time.	Y	N
10. The student checks the clinical schedule to determine what procedures need to done.	Y	N
11. The student checks for metallic or ferromagnetic objects before entering MR suite	Y	N
12. This evaluation has been explained with the student.	Y	N

Please explain in writing if any of the questions were answered no:

Suggestions for improvement and areas of concern:

Student's Comments:

_____	_____	_____	_____
Evaluator's Signature	**Date**	**Student's Signature**	**Date**

Final Rotation Evaluation Key
(Final evaluation form is on reverse side)

Key*:

1st Rotation	**(3)** Far exceeded	–	Performed >8 different procedures at Level 3
	(2) Satisfactory	–	Performed 8 different procedures at Level 3
	(1) Minimally Met	–	Performed 6 – 7 different procedures at Level 3
	(0) Did Not Meet	–	Performed 5 or less procedures at Level 3
2nd Rotation	**(3)** Far exceeded	–	Performed >11 different procedures at Level 3
	(2) Satisfactory	–	Performed 11 different procedures at Level 3
	(1) Minimally Met	–	Performed 9 – 10 different procedures at Level 3
	(0) Did Not Meet	–	Performed 8 or less procedures at Level 3

Saint Louis University
Magnetic Resonance Imaging Program
Final Rotation Evaluation

Student Name: _____ **Date:** _____ **Rotation** 1 2 3 4

FINAL EVALUATION FORM
(See reverse side for key)

The student **did / did not** complete this rotation. Based on the number of clinical competencies achieved (see front), the student's performance:

(circle one)

(check one)

___ Exceeded requirements (3)
___ Satisfactorily met requirements (2)
___ Minimally met requirements (1)
___ Did not meet requirements. (0)

This evaluation has been explained with the student. ____ Yes ____ No **(check one)**
If no, please explain:

Clinical Supervisor's Comments:

Student's Comments:

_____ ____/____/____ _____ ____/____/____
Evaluator's Signature **Date** **Student's Signature** **Date**

STUDENT CLINICAL EVALUATION/PERSONAL CHARACTERISTICS
(Use the following scale in completing this evaluation) **3** = Always **2** = Sometimes **1** = Rarely **0** = Never

ATTIRE
1. ____ Presents themselves according to dress code, i.e. wears scrubs or approved attire and name badge while working in the department
2. ____ Exercises good personal hygiene (showered, clean clothes, free from offensive odors)

ATTITUDE
3. ____ Appears interested in learning procedures and asks appropriate questions
4. ____ Handles negative feedback in a professional manner
5. ____ Demonstrates empathy in professional interactions
6. ____ Finds things to do to keep busy when not doing procedures

PUNCTUALITY
7. ____ Arrives at assigned area work on time
8. ____ Notifies supervising technologist when leaving assigned area and expected return time
9. ____ Returns to assigned area promptly after scheduled breaks

INTIATIVE/MOTIVATION
10. ____ Takes initiative to work on tasks that he/she has proven they can do with minimal supervision
11. ____ Takes initiative to do clinical tasks that he/she is unfamiliar with, inviting appropriate supervision from the technologist
12. ____ Makes an active effort to check the clinical schedule to determine what procedures are to be performed
13. ____ Helps out in unassigned clinical areas when responsibilities are completed in assigned area
14. ____ Work is completed in a prompt and efficient manner
15. ____ Helps technologist with patients when special needs arrive (moving patients, use of bedpan, etc.)

RESPONSIBILTY
16. ____ Makes corrections in performance after appropriate feedback
17. ____ Limits socialization with others while a patient is in his/her assigned area
18. ____ Refrains from congregating in inappropriate areas when not busy or between patient studies
19. ____ Refrains from taking care of personal matters during clinic time (phone calls, non-related errands, etc.)
20. ____ Refrains from violating patients' rights (confidentiality, privacy, etc.)

PATIENT INTERACTION
21. ____ Takes initiative to converse with every patient who enters assigned area
22. ____ Becomes actively involved with the explanation given to patient before a procedure
23. ____ Has the ability to adapt exams based on patient's ability
24. ____ Refrains from discussing personal matters with patient
25. ____ Refrains from making inappropriate comments to patients (flirting, joking around, etc.)

INFECTION CONTROLS / SAFETY
26. ____ Uses gloves when appropriate

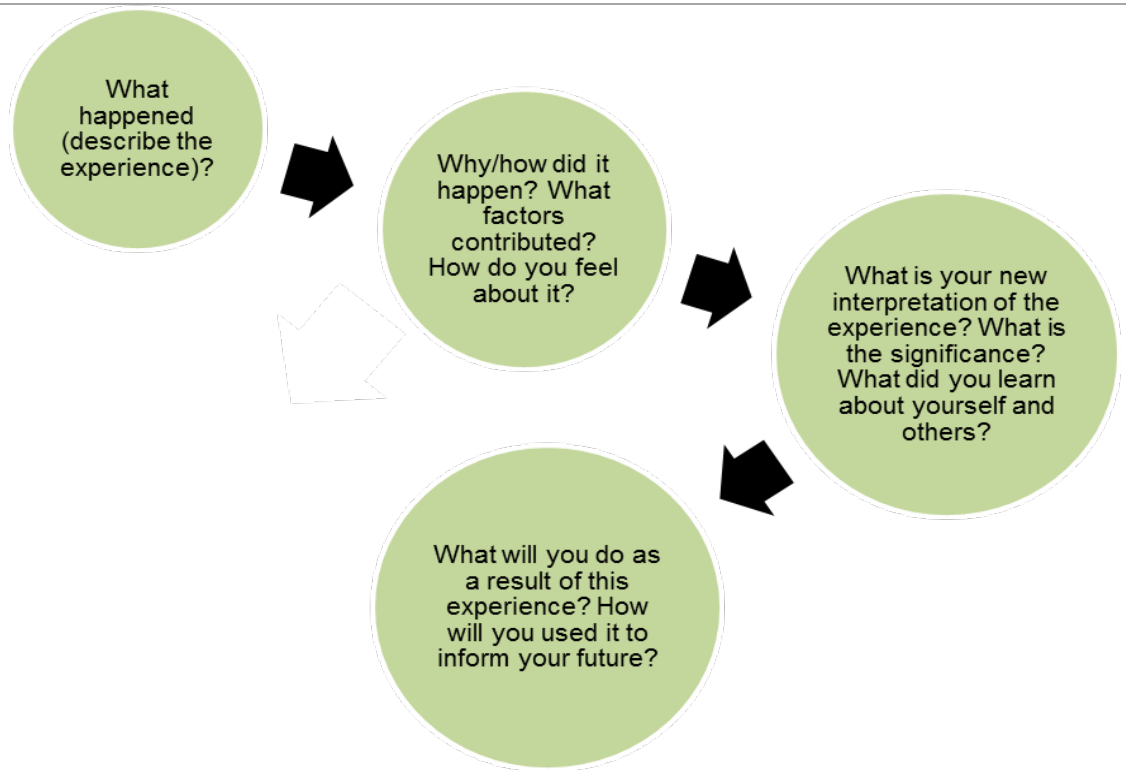
Critical Reflection Assignment #1 and #3

MRI Critical Reflection Assignme

SAINT LOUIS UNIVERSITY
MAGNETIC RESONANCE IMAGING PROGRAM

Critical Self-Reflection Journaling Assignment

Critical self-reflection refers to the most important learning experience. It means reassessing the way we have posed problems, our own meaning perspectives, and our own orientation to perceiving, knowing, believing, feeling, and acting.



As another form of communication with program faculty, MRI students are required to make regular written comments and reflections on experiences in the clinical areas in a critical reflection/journal entry. These reflections should describe experiences in the clinic; they are not designed to be written about personal topics or issues (unless approved by program faculty). Reflection topics may vary by student and are designed to tie didactic coursework into the clinical practicum, as well as address clinical issues that may come up that can be discussed during faculty clinical visits.

Entries should be emailed to Marcey Kennedy at Marcey.kennedy@health.slu.edu by 11;59 pm on the due date. Entries are to be 1-2 pages in length, double spaced. With 1 inch margins.

For more information regarding the style and content of the reflection, please refer to the Critical Reflection Grading Rubric. Please note: these entries will be kept confidential between program faculty and the student, and will not be shared with clinical personnel. These entries should NOT be written during clinical time. Since this reflection is part of the overall clinical rotation grade calculation, failure to complete the assignment will result in a decrease of the student's clinical grade.

Prompts for each critical reflection

Due 2/5/2023

Jesuit Values
What are Jesuit Values?
How have you seen “Cura Personalis” reflected in the clinical setting?

Due 3/5/2023

Professional characteristics of a MRI technologist
Provide examples of portrayal (good and bad) of the professional characteristics mentioned in your reflection.

Due 4/2/2023

Ethical Dilemma
Have you witnessed an ethical dilemma or been involved in one personally during your time in the clinic? If not, please provide thoughtful comments on what good and bad ethics may be and how they would affect the profession and or others.

Due 4/30/2022

Professional Development
Describe your progress as an MRI technologist. Think back to the first rotation and how you felt and compare to the fourth rotation as you are completing the program.

Entries are NOT to be written during clinical time.
Entries will NOT be shared with clinical personnel.

Critical Self-Reflection Grading Rubric

	0- Beginner	1-Developing	2-Accomplished (Reflections 1-4; Maximum Points Available = 10)	Comments	3-Advanced (Reflections 5-8 ; Maximum Points Available = 15)	Comment
Identifies and Summarizes Issue ☐	**Does not identify or summarize issue.**	**Minimally identifies and summarizes issue.**	**Identifies and summarizes issue. Explores some aspects of the issue.**		**Identifies and summarizes issue comprehensively. Explores all aspect of the issue.**	
Gathers facts and evidence related to issue ☐	**Only uses facts or evidence present at the onset of the issue. Does not seek out additional information.**	**Seeks and gathers minimal information related to issue from few or inappropriate sources.**	**Seeks and gathers ample additional information from a variety of sources.**		**Generates comprehensive set of facts/evidence based information from a variety of credible sources.**	
Incorporates perspectives ☐	**Does not consider the other points of view when approaching issue.**	**Approaches issue based off of personal perspective and majority/popular points of view.**	**Approaches issue based off of other people's perspectives and opinions.**		**Utilizes all perspectives available when approaching issue. Distinguishes between facts and opinion when presenting evidence.**	
Draws Conclusions ☐	**Does not draw conclusions or formulates conclusions inconsistent with evidence and perspectives.**	**Formulates some conclusions consistent with some evidence, but lacking in depth and scope.**	**Formulates conclusions consistent with most evidence.**		**Formulates conclusions consistent with a wide range of evidence.**	
Identifies impact on future ☐	**Does not identify implications or consequences either to self or others. Does not acknowledge impact of issue on future.**	**Identifies implications and consequences of issue to self. Identifies potential effect on future.**	**Identifies implications and consequences of issue to self and others. Identifies concrete examples of change in future.**		**Comprehensively identifies implications and consequences of issue to self and others and makes connections to specific ways in which the future will be affected.**	
Subtotal:						
***Less Grammatical Points :**						
Total:						

IMPORTANT: Please submit any assessment tools (e.g., artifact prompts, rubrics) with this report as separate attachments or copied and pasted/appended into this Word document. Please do not just refer to the assessment plan; the report should serve as a stand-alone document. Thank you.