

Final Assignment: Reflecting on Broadening Life Sciences

As part of the Life Sciences Academy, you have followed 7 Life Sciences Seminars¹ and 2 Career Events. As a summarizing assignment, you need to write a reflection about this. The reflection should be minimal 2 and maximal 3 A4 pages (i.e. 1000-1500 words). Send this reflection to your programme coordinator (or track coordinator, if applicable).



1. Compose an overview of the seminars and career events you attended, mentioning the following information: Title + Name speaker, title of the seminar, ((Official name conference + city)/(official name of seminar/conference)), date.
2. Reflect on the seminars and career events and describe the knowledge (insights and ideas) and skills you obtained during the series. In this reflection, highlight the impact on your scientific insights, knowledge, ethics, integrity and/or soft skills. You do not need to use all attended events for the reflection.
3. Incorporate information of 2 or 3 seminars and a career event from your track list that are most memorable to you. All seminars/career events (also those organized outside of the GSLS) can be used.

You can use the bullet points below to think through the phases of the (learning) experience. These phases include:

- Description: What inspired you? What did you learn?
 - Analysis: How does this new insight or experience connect with something from your personal life, your perspective, or something you have recently read that you found remarkable (see #4).
 - Action: What are you going to do with this new insight? and/or How does this new insight affect you? and/or How will others notice that you changed? How do you feel this could contribute to your future career or personal competences?
4. The challenge during this reflection is to connect knowledge or skills from the different seminars and career events in your overview. Try to integrate something from your personal life, your perspective, or something you have recently read that you found remarkable and give your opinion about it.

Self-evaluations will be checked for plagiarism via [Ouriginal: information](#) for students, [information](#) for teachers.

Example Overview List:

1. Life Sciences Seminar: Title + Name speaker, title of the seminar, ((Official name conference+ city)/(official name of seminar)), date.
E.g. Prof. Jane Doe, "Carbon Monoxide: To Boldly Go Where NO Has Gone Before", Science signaling, Pittsburgh, 4 April 2021.
2. Career Event: Name alumnus 1 + programme, name alumnus 2 + programme, date.
E.g. Jane Doe, Infection and Immunity and John Doe, Drug Innovation , 4 April 2021.

¹ One or two seminars that were followed elsewhere have to be approved by the programme coordinator in advance.

How to Assess a Self-Reflection?

The value of reflection on experience is a way to enhance learning. However, assessing (self)-reflection is not easy. Dewey (1933) described reflective thoughts to be active persistent, and careful considerations. Most definitions of reflection involve the examination of the response in a given situation (reviewed in Rogers 2001).

Four Progressive Levels of Reflection:

Hatton and Smith (1995) described four progressive levels of reflection for higher education. Every higher level, shows a better/higher reflective process (Figure 1).

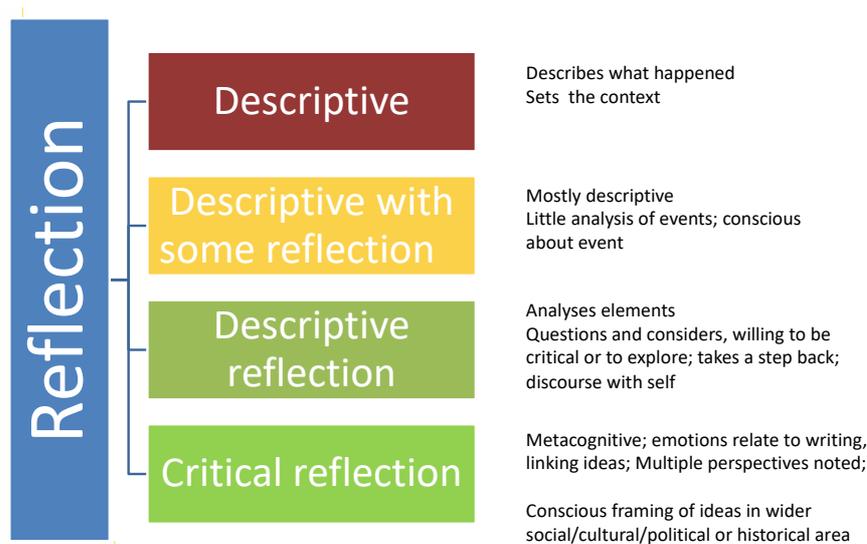


Figure 1: Different stages of reflection

Ash and Clayton, 2004 described these stages in more detail:

1. **Descriptive:** This is not reflection, but a description of events. It simply describes events that occurred with no attempt to describe 'why.'
2. **Descriptive Reflection:** Description includes reasons, but simply reports reasons. Shows some deeper consideration in relatively descriptive language. Is conscious.
3. **Dialogic Reflection:** Reflection as a personal dialogue involving questioning things, considering alternatives, etc. Examples include "I wonder..., what if..., perhaps..." types of statements. There is a stepping back from the events that leads to different level of discourse. There is a consideration of 'self' in the events (self-consciousness).
4. **Critical Reflection:** The learner considers context in which events occur, questions assumptions, considers alternatives, thinks about consequences of decisions/actions on others, and engages in reflective skepticism. This form shows evidence the learner is aware.

→ We aim that you reach at least **stage 2 or 3** in your reflection. This means your reflection is descriptive reflection or a dialogic reflection.

Assessment Self-Reflection Rubrics:

Element	Description	Criterion met?
Mechanics	Consistently avoids typographical, spelling and grammatical errors.	
Connection to Experience	Makes clear the connection(s) between the experience and/or opinions and the dimension being discussed.	
Accuracy and Logic	Makes statements that are logical and supported with evidence (examples/ illustrations).	
Relevance	Describes learning that is relevant to the articulated learning statement category and keeps the discussion specific to the learning being articulated.	
Depth	Addresses the complexity of the problem; answers important question(s) that are raised.	
Breadth	Gives meaningful consideration to alternative points of view and interpretations.	
Significance	Draws conclusions, sets goals that address a (the) major issue(s) raised by the experience.	

Rubrics: based on: Ash, S. L. & Clayton, P.H. (2004). The articulated learning: An approach to guided reflection and assessment. *Innovative Higher Education*, 29(2), 137-154.

→ You have to meet at least 5 out of 7 of these criteria on critical thinking to get a pass for part III (Broadening Life Sciences) of the course Life Sciences Academy.

Learning Outcomes Part C: Broadening Life Sciences

After following Part C: Broadening Life Sciences, you:

- are acquainted with recent scientific developments in the field of Life Sciences other than their own MSc Programme;
- are familiar with the multi-disciplinary field of life sciences and network with peers
- have an interdisciplinary scientific view;
- are familiar with different career perspectives within the field of Life Sciences;
- are able to write a self-reflection about scientific seminars, ethics, and soft skills that contribute to your personal study and career success.

Further Reading and References

- Hatton, N. & Smith, D. (1995). Reflection in teacher education: Towards definition and implementation. *Teaching and Teacher Education*, 11 (1), 33-49. <https://link.springer.com/content/pdf/10.1023/B:IHIE.0000048795.84634.4a.pdf>
- Rogers, R. (2001). Reflection in higher education: A concept analysis. *Innovative Higher Education*, 26, 37–57.
- Ash, S. L. & Clayton, P.H. (2004). The articulated learning: An approach to guided reflection and assessment. *Innovative Higher Education*, 29(2), 137-154.