**Supporting Meaningful Reflection**

**Contents**

**What is Reflection?**-----------------------------------------------------------------------------------------**1.**

**Experiential Learning Theory and Reflection**--------------------------------------------------------**1.**

**Defining Reflection**-----------------------------------------------------------------------------------------**2.**

**How We Learn Through Reflection**--------------------------------------------------------------------**2.**

**Reflection in Action**----------------------------------------------------------------------------------------**3.**

**Reflection Best Practices**----------------------------------------------------------------------------------**4.**

**Depth of Reflection**-----------------------------------------------------------------------------------------**4.**

**Types of Reflection**-----------------------------------------------------------------------------------------**5.**

**Reflection Questions/Prompts**---------------------------------------------------------------------------**5.**

**Example Questions That Promote Deeper Reflection**----------------------------------------------**5.**

**Some Techniques That Promote Reflective Learning**----------------------------------------------**6.**

**Assessment of Reflection: Best Practices**--------------------------------------------------------------**7.**

**The Use of Rubrics**-----------------------------------------------------------------------------------------**7.**

**References**----------------------------------------------------------------------------------------------------**8.**

**Appendix A: Models of Reflection**­---------------------------------------------------------------------**10.**

 **The D.E.A.L. Model**----------------------------------------------------------------------------- **10.**

**What? So What? Now What**?------------------------------------------------------------------**10.**

**The ICE Model**------------------------------------------------------------------------------------**11.**

**4Rs Model**------------------------------------------------------------------------------------------**11.**

**What is Reflection**

Experiential learning includes “**reflection**” as a key component but what is “**reflection**”? “**Reflection**” simply means taking time to consider:

How to adjust your knowledge, assumptions or actions as a result

of what you learned

What you
learned from
that experience

Your
experience

(Source U of T Experiential Learning Hub)

**Experiential Learning Theory and Reflection**

John Dewey, often recognized as the father of experiential learning, stated:

“Intellectual learning includes the amassing and retention of information. But information is an undigested burden unless it is understood. It is knowledge only as its material is comprehended. And understanding, comprehen­sion, means that the various parts of the information ac­quired are grasped in their relations to one another — a result that is attained only when acquisition is accompanied by constant reflection upon the meaning of what is studied. “(Dewey, 1933, p.78–79)”

David Kolb drew on the work of William James, John Dewey, Kurt Lewin, John Piaget, Lev Vygotsky, Carl Yung, Mary Parker Follett, Carl Rogers, and Paulo Freire to develop the most recognized model for experiential learning. Reflective observation and the internalization of reflection is one of the four integral components of this model.



**Defining Reflection**

**Reflection**, “as a process, seems to lie somewhere around the notion of learning and thinking. We reflect in order to learn something, or we learn as a result of reflecting - so **reflective learning** as a term, simply emphasizes the intention to learn as a result of reflection.” (Moon, 2004)

**Reflection/reflective learning** or reflective writing **in the academic context**, is also likely to involve a conscious and stated purpose for the reflection, with an outcome specified in terms of learning, action, or clarification. It may be preceded by a description of the purpose and/or the subject matter of the reflection. The process and outcome of reflective work are most likely to be in a represented (e.g., written) form, to be seen by others and to be assessed. All of these factors can influence its nature and quality.

Carl Rogers wrote much about the importance in learning of the development of a sense of ownership of learning by the learner (Rogers, 1969). To reflect on something is to bring it into ownership. This may be related to the suggestion by Elbow (1973) that reflective or personally expressive writing facilitates learning, and Selfe and Arbabi (1986) that students who write reflectively about their process of **problem-solving** become more able at solving that type of problem.

Reflection also encourages **metacognition** that supports learning. Learners who achieve well are more often those who are aware of, and able to reflect on, **their own learning processes**, their **weaknesses, and strengths** (Kuhn et al., 1988; Ertmer and Newby, 1996; Hadwin and Winne, 1996; Dart et al., 1998).

Reflection not only plays a part in the process of good quality learning, but it is also important in the development of **appropriate learning behaviour**. (Moon, 2004)

**How We Learn Through Reflection**

* Reflection **Generates** Learning: Students will often understand things in new ways when
 they ask themselves key questions about their experience.
* Reflection **Deepens** Learning: When students take the time to consider their experience, and share those thoughts with their instructor/supervisor/peers, it can help them refine and reconsider their initial assumptions
* Reflection **Documents** Learning: Completing reflective exercises and assignments allows students to demonstrate and track what they have learned for both themselves and others.

(Ash & Clayton, 2009) If these are direct quotes, the section needs to be in quotations marks.

**Reflection in Action (is this necessary?)**

Ash and Clayton (2009) asserted that good practice for critical reflection should include three steps:

* Determining the desired outcomes: learning goals and associated objectives:

Designing critical reflection requires beginning with the end in mind (Covey, 1989;
Wiggins & McTighe, 1998). Specifically, it begins with the identification of desired learning outcomes. Boom’s Taxonomy of Educational Objectives (1956) provides a foundation for turning learning goals into assessable learning objectives, which then drive the rest of the design process. Ash and Clayton (2009)

* Effectively designing critical reflection involves making a series of choices that are informed by the desired learning outcomes as well as by the opportunities and constraints that come with the specific context in which applied learning is being implemented and by the abilities of the participants. These choices produce an overall reflection strategy or over-arching structure that may combine various reflection activities or mechanisms—such as journal entries, online chat sessions, poster presentations, worksheets, or discussion sessions. See Appendix A for a complete list of refection activities.
* Integrating formative and summative assessment into the reflection process:

Designing an intentional approach to critical reflection in applied learning also involves the development of an assessment strategy. Just as reflection is much more effectively implemented not only at the end of an applied learning course or project but throughout, so too is assessment more valuable when it is designed from the beginning and is itself
evaluated and modified as needed throughout. Ash and Clayton (2009)

**Reflection Best Practices**

* Reflection is an ongoing process and not just a product. Continuous practice is important.
* Each reflection can provide a student with new insights and additional practice at deepening their reflective skills.
* The more a student engages in reflection, the easier it becomes and the stronger their reflections will be.
* The most successful reflection practices in experiential learning are continuous.
A student should reflect in an ongoing way and revisit previous reflections.
* Keeping a journalon intellectual, emotional, and physical responses is a good idea

**Reflection Best Practices:**

**Reflection is:**

* critical thinking that supports learning objectives by expecting students to make astute observations, to demonstrate inductive or deductive reasoning skills, and to consider multiple viewpoints, theories, and types of data.
* intellectual work that differs from the dominant academic culture by intentionally engaging the whole person, connecting community experiences with academic content, and cultivating students’ awareness of themselves as active participants in public life.
* An activity that contributes to the creation of educational environments in which a diverse population of students thrives by acknowledging the influence of people’s identities and contexts and inviting students to construct and share their own sense of meaning.

**Reflection is not:**

* a didactic retelling of the events at a service site
* simply an emotional outlet for feeling good about doing service, or for feeling guilty about not doing more
* a time for soapboxing
* a tidy exercise that closes an experience; reflection is ongoing, often messy, and provides more openings than closings. Connors & Seifer (2005)

**Depth of Reflection**

A dimension of reflection, particularly when reflective learning is used in academic practice, termed **depth**. Depth of reflection is represented in a hierarchy **of levels of reflection**.

It is commonly observed that when asked to engage in reflective writing, learners will often not manage much more than a **descriptive level of reflection**. To support their ability to reflect at a deeper level and to facilitate assessment processes of reflection, frameworks for reflective writing that incorporate the notion of depth have been developed.

Depth of reflection is often characterized by increased flexibility and the ability to manage the framing process in an open and flexible manner. Depth is demonstrated in the following:

* the learner's intentions for the learning
* the increase of the range of variation that is taken into account in the reflective process
* the ability to recognize and manage relevance
* the sophistication of the learner's conception of knowledge
* their ability effectively to frame emotional factors
* their understanding of the effect of emotion on learning
* their framing of the approach to learning that they adopt (Moon, 2004)

**Types of Reflection I am not sure that single loop and double loop belong without more explanation**

* **Simple or Single-loop** **Reflection** connects experience to theory
* **Double-loop Reflection** considers influence of personal values, attitudes, and actions
* **Reflection-in-action** is impromptu reflection required to understand and adapt to an ongoing situation
* **Reflection-on-action** is planned and structured reflection postexperience
* **Surface Reflection** is extrinsically motivated reflection upon the descriptive elements of experience
* **Deep Reflection** is intrinsically motivated reflection on experience as applicable to self and real-world context
* **Critical Reflection**- Enhances basic reflection through questioning personal assumptions, connecting theory to experience, considering multiple perspectives, and creating evidence of new learning (Stirling, Banwell, MacPherson, & Heron, A. (2016).

**Reflection Questions/Prompts**

* Reflection questions are used to focus students’ attention and to promote deeper reflection
* 3-5 questions should be included in the syllabus
* They should lead students to personalize their reflective writing that:

-is more than of recounting of their experience

-connects the experience to the course material and their previous knowledge

-imagines how new knowledge will be used in their future academic, work, and

community lives.

**Example Questions That Promote Deeper Reflection**

* Did anything unexpected happen?
* How did you respond to challenges?
* What might you want to learn more about because of this?
* Does this connect to any past experiences or themes? If so, which?
* What did you learn about yourself?
* How did your involvement and participation in this fit into your broader goals for learning?
* What would you change?

**Some Techniques That Promote Reflective Learning:**

 **Wait Time**:

* Wait time consists of the pauses between sentences, the moments after posing a rhetorical question
* The pacing of phrases allows a listener's brain to reflect or question during speech or a lecture. Tobin (1987) found that lecturers who used wait time well enabled better learning.

**Confronting learners with their misconceptions**

Learners who are always taught the right answer, or are given the right techniques, do not learn to make judgements (Fazey and Marton, 2002). They are helped if their misconceptions are pursued to the end, and not just corrected.

**The “I” in Reflection**

Most learners will have learnt that they should not use the first person singular in an academic environment. They can be confused if they are suddenly being encouraged to use 'I'. The idea that the first person is permissible in an academic context can be difficult for staff too. It may be helpful here to talk about the manner in which knowledge is constructed and the relationship between our unique frames of reference and our attempts to be objective and how the use of the first person can be helpful in acknowledging this gap. (Moon, 2004)

**Concept Maps**

A method of finding how learners see a topic is to ask them to draw concept maps. The maps of the teacher and peers may demonstrate differences in thinking and therefore material on which to reflect (Desler, 1990; Hadwin and Winne, 1996; Moon, 2004).

**Reiteration**

Explaining something and possibly then applying the idea to something else is an activity that distinguishes the learner who has taken a surface approach from one who has taken a deep approach. If learners know that they will be required to explain something, they are likely to adopt a deep approach to the learning of it. The requirement to explain calls on the ability to reflect and check the soundness of ideas (Chi et al., 1989; Chi et al., 1994).

**Questions**

Styles of questioning in class and in assessment tasks can elicit reflection if they are open and set as problems to be considered. Often the simplest questions are the most difficult to answer and demand the most thought (Morgan and Saxon, 1991).

**Problem Solving**

Encourage reflection during problem solving. Selfe and Arbabi (1986) found that learners who had accompanied problem-solving activities in engineering with reflective accounts of their progress were more successful at solving subsequent problems. (Moon, 2004)

**Team Reflection**

Team reflection has been shown to enhance students’ learning experiences as it appears that greater competence is developed via the social interaction and dialogue that occurs as students think together and share their individual understanding in the process of examining their collective assumptions (Garavan & McCarthy, 2008; Gear et al., 2003; Knapp, 2010).

**Assessment of Reflection: Best Practices**

* Students should be graded on how they can demonstrate what they have learned, not the quality or product of their experience.
* In traditional courses, students are not graded on how well they read the text but on how they demonstrate their learning from the text and apply the ideas from the text to different situations. When service becomes the text faculty must apply the same standards. Students should be evaluated on how they comprehend and apply the “text” of service how they integrate their experiences with knowledge gained from classroom texts and lectures.
* The best place to assign grades for experiential learning is on reflection exercises and assignments.
* Community partners should report on students work but are should not grade students, only faculty and their assistants should grade students.
* When weighting course grades, consider how many of the learning objectives are addressed by the experiential project.
* Consider allowing students to contribute to their own evaluation and to those of their peers. They can evaluate their community project performance and their reflection journals and assignments. Faculty can take these evaluations into consideration when grading.

**The Use of Rubrics**

* Give the grading rubric to students as part of their assessment so they can use it to guide their work. Students should also have the rubric along with reflection prompt questions before they enter into their experience projects.
* Faculty should their own rubrics. Every EL course is different enough that rubrics downloaded from the internet may not contain the best criteria to assess learning outcomes. (See Appendix B- Suggested Rubric Criteria)
* Focus on the big picture things. Don’t feel like you need to include dozens of criteria - this can be overwhelming. Identify the larger groupings or themes to be evaluated and focus on those.
* Arrange the levels of achievement with the highest level at the left and the lowest at the right. This helps students to see the highest levels of achievement first and to aim for them.
* Keep the levels of achievement to an even number. This forces the evaluator to make a more definite decision on where a student’s work falls, since there isn’t a middle value to fall back on.

**References**

Ash, S. L., & Clayton, P. H. (2009). Generating, deepening, and documenting learning: The power of critical reflection in applied learning. *Journal of Applied Learning in Higher Education*, 1(1), 25-48.

Borton, T. (1970). Reach, touch, and teach. New York. McGraw Hill.

Coulson, Debra, and Marina Harvey. Scaffolding student reflection for experience-based learning: a framework. Teaching in Higher Education, 2013

18, (4) pp. 401-41

Chi, M., Bassock, M., Lewis, M., Reimann, P. and Glaser R. (1989) 'Self-explanations: how students study and use examples in learning to solve problems', Cognitive Science, 13, 145-82.

Chi, M., de Leeuw, N., Chiu, M. and LaVancher, C. (1994) 'Eliciting self-explanations improves understanding', Cognitive Science, 18, 439-77.

Conners, K & Seifer, S., (2005). Campus community partnerships for health. Campus Compact. www.servicelearing.org.

Covey, S. (1989). 7 habits of highly effective people. New York: Free Press / Simon & Schuster.

Dewey, J (1933) How we think. Boston. DC Heath and Company.

Desler, D. (1990) 'Conceptual mapping: drawing charts of the mind', in J. Mezirow (ed.) Fostering Critical Reflection in Adulthood, San Francisco: Jossey-Bass.

Eyler, J., Giles, D. E., Jr., & Schmiede, A. (1996). A practitioner's guide to reflection in service-learning. Nashville, TN: Vanderbilt University.

Elbow, P. (1973). Writing without teachers. New York. Oxford University Press.

Fazey, J. and Marton, F. (2002) 'Understanding the space of experiential variation',

Active Learning in Higher Education, 3 (3), 234-50.

Fostaty Young, S., & Wilson, R.J. (2000). Assessment and Learning: the ICE approach.

Winnipeg, MB. Portage and Main Press.

Fowler, John. Experiential learning and its facilitation. *Nurse Education Today.* (2008) 28, 427–433.

Gear, T., Russ, V., Read, M., & Minkes, A. L. (2003). Group enquiry for collective
learning in organisations. Journal of Management Development, 22, 88-102.

Hadwin, A. and Winne, P. (1996) 'Study strategies have meager support: a review, with recommendations for implementation', Journal of Higher Education, 67 (6),

1-17.

Knapp, R. (2010). Collective (team) learning process models: A conceptual review.
Human Resource Development Review, 9, 285-299

Kolb, A and David. Kolb experiential learning theory as a guide for experiential educators in higher education. *A Journal for Engaged Educators*. Vol. 1, No. 1, pp. 7–44, 2017.

Lyons, J. (1999) 'Reflective education for professional practice: discovering knowledge from experience', Nurse Education Today, 19, 29-34.

Miller, R & Maellaro, R. (2016) Getting to the root of the problem in experiential learning: using problem solving and collective reflection to improve learning outcomes. *Journal of Management Education*, 40(2), 170–193.

Moon, Jennifer. The nature of reflective learning. A Handbook of reflective and experiential learning., Routledge Falmer, 2004.

Morgan, N. and Saxon, S. (1991) Teaching Questioning and Learning, London: Routledge.

Quinton, Sarah, and Teresa Smallbone. Feeding forward: using feedback to promote student reflection and learning – a teaching model *Innovations in Education and Teaching International*, 47, (1) 2010, pp. 125–135.

Rogers, C. (1969). Freedom to learn. Columbus, Ohio: Charles E. Merril Publishing Company.

Ryan, M., & Ryan, M. (2013). Theorising a model for teaching and assessing reflective learning in higher education. Higher Education Research & Development, 32(2), 244–257.

Selfe, C. and Arbabi, F. (1986) 'Writing to learn: Engineering students journals', in

A. Young and T. Fulwiler (eds) Writing Across the Disciplines, Upper Montclair, NJ: Boynton/Cook.

Stirling, A., Kerr, G., Banwell, J., MacPherson, E., Heron, A. (2016). A practical guide for work integrated learning. Higher Education Quality Council of Ontario

Tobin, K. (1987) 'The role of wait time in higher cognitive learning', Review of Educational Research, 57 (1), 69-75.

Wiggins, G., & McTighe, J. (1998). Understanding by design. Alexandria, VA: Association for Supervision & Curriculum Development.

**Appendices**

**Appendix A: Models of Reflection**

**The D.E.A.L. Model** (Ash & Clayton, 2009)

Frames experiential learning as a cyclical process that begins with students engaging in an experience, moving through phases of reporting, critical reflection, and goal setting.

Learners are asked to:

Describe:

* What took place?
* When and where?
* Who was and was not present?
* What did you and others do/not do?
* What did you see, hear, etc.?

Examine:

* In what ways did you succeed or do well?
* How were you challenged?
* How did this experience make you feel?
* What perspective/thoughts changed in light of you experience?

Articulate Learning:

* What did you learn?
* How?
* Why does it matter?
* What will you do in light of it?

**What? So What? Now What**? Model (Borton, 1970):

What?

* What happened?
* What did you learn? Do?
* What did you expect?
* What was different?
* What was your reaction?

So What?

* Why does it matter?
* What are the consequences and meanings of your experiences?
* How do your experiences link to your academic, professional and/or personal development?

Now What?

* What are you going to do as a result of your experiences?
* What will you do differently?
* How will you apply what you have learned?

**The ICE Model** Fostaty, Young, and Wilson, (2000)

Offers a framework of learning growth whereby a student progresses from novice to competence to expertise. ICE stands for ideas, connection, and extensions.

**Ideas:** Students identify the fundamental elements/basic facts of an experience

* What is happening?
* What were the steps or processes involved?
* What skills or knowledge are needed?
* What ideas or questions do you have?

**Connections:** Students articulate relationships between what they learned from the experience to course concepts and prior knowledge; students make connections between their skills and the experience

* How can course concepts/theories be applied?
* What skills are you developing or need to develop?
* What are connections between this experience and other situations you’ve encountered?

**Extensions:** Students extrapolate what they have learned to apply it to novel situations and consider implications of learning and hypotheses.

* How could you apply what you have learned?
* What might you do if you encountered a slightly different situation in the future?
* What do you think would happen if you … ?
* How has this experience changed your perspective?

**4Rs Model** Ryan & Ryan (2013)

This framework for reflection is valuable for students who may not be familiar with reflection. It provides a scaffolded approach – students can begin at the entry stages and move up over the course of a term or over the course of their degree if this model of reflection is woven throughout an entire program.

**Reporting & Responding:** Students are prompted to notice aspects of their experience, report what happened and their reaction/response to it.

* What happened and why is it relevant?
* What did you observe?
* Do you have questions?
* What was your initial reaction?

**Relating:** Students are expected to make connections between the experience and their own knowledge, prior experience, or skills.

* Have you encountered this type of situation before?
* What skills/knowledge do you have to deal with this experience?
* Are there skills/knowledge you need to gain?

**Reasoning:** Students connect course concepts, theories, and literature with the experience and consider different perspectives.

* What theories/concepts align with the experience?
* Based on a particular theory/concept, were you surprised by what you experienced?
* How would an expert approach this situation?
* What are the factors that underlie the situation?

**Restructuring:** Student articulate how their new insights/ideas will guide their action in future experiences.

**The 4 C’s** (Eyler, Giles, and Schmiede, 1996)

Reflection should be: Continuous, Contextualized, Challenging, and Connected

A teacher should:

* Model the reflective process yourself so that students are able to learn from you and recognize that it is an important process in the workplace.
* Show students what is expected of them if a reflective assignment is to be evaluated. Using rubric can be helpful in this situation.