

# Reflection Activities

## Reflection Activities for Prior Knowledge

(used prior to engaging students in subject or topic)

- **3-2-1:** Have students list three things you already know about X, two things you'd like to know about or learn more about, and one question related to the key concept or learning.
- **Checklists:** Develop a list of key concepts, ideas, definitions that students might know about the topic/subject to be discussed. Have students answer to what degree that they feel that they already understand these ideas. *For more information, see: [http://www.cpalms.org/Uploads/resources/72937/Assessment/FormativeAssessment/docs/Prior%20Knowledge%20Checklist%20\(1\).pdf](http://www.cpalms.org/Uploads/resources/72937/Assessment/FormativeAssessment/docs/Prior%20Knowledge%20Checklist%20(1).pdf)*
- **KWL or KWL R:** Begin the lesson with a three-column organizer: What I Know, What I Want to know, What I Learned. Have students fill in the first two columns in advance of the lesson. Return to the last column as a summarizing strategy for the lesson. In the university context, often an R (for what do I or did I research) is added.
- **Misconception Check:** “Present students with common or predictable misconceptions about a designated concept, principle, or process. Ask them whether they agree or disagree and explain why. The misconception check can also be presented in the form of a multiple-choice or true-false quiz” (Lambert, 2012).
- **Story Board:** Students use pictures and/or symbols to create a visual outline that demonstrates their understanding and/or application of a new idea or concept. *For more information about the use of storyboards in the college classroom, see: <https://blogs.umass.edu/instruct/2014/01/30/engaging-with-storyboards/>.*

## Reflection Activities for Cognition

- **Concept Maps:** Concept maps are visual diagrams representing how a particular concept or idea is related to other ideas, terms, topics, or processes. A concept map is a way of illustrating the connections that exist between terms or concepts covered in course material; students construct concept maps by connecting individual terms by lines that indicate the relationship between each set of connected terms. Developing a concept map requires the students to identify and organize information and to establish meaningful relationships between the pieces of information. Chris Ray, a student at Waterloo, explains how he used a concept mapping tool to take class notes here. *For more information on concept mapping, see: <http://www.inspiration.com/visual-learning/concept-mapping>.*
- **Quick-Write:** This strategy asks learners to respond in 2–10 minutes to an open-ended question or prompt posed by the instructor before, during, or after reading.

- **Take and Pass:** This exercise is a cooperative group activity used to share or collect information from each member of the group. Students are asked to write a response, then pass to the right, add their response to the next sheet of paper they receive, and continue until they get their paper back. Once this process is over, the group debriefs.
- **Exit Card:** Exit cards are written student responses to questions posed at the end of a class or learning activity or at the end of a day.
- **Journals:** See different types of journaling at the following link: <http://www.usf.edu/engagement/documents/s-l-reflection-activities.pdf> . While most faculty are familiar with journaling as a method of students processing content for a course, double and triple journaling can be done to encourage students to comment on their own thought processes or to add peer comments. *For more on reflection and writing, visit: <http://writingcenter.utk.edu/for-faculty/informalwriting/>*
- **Reflective Essays:** In order to make the learning more personal, have students write a reflective essay. A reflective essay should require the student to connect their personal experience to course content. *For more information, see: <http://classroom.synonym.com/good-way-start-writing-reflective-essay-5879.html>*

**Reflective Writing** is not limited solely to prose; equations can be posted in homework journals, for which other students review and comment. See the following snapshot of a mathematics homework submission with student comments (provided by Dr. Jerzy Dydak, Mathematics Department, The University of Tennessee, Knoxville):

**Reviewer Report For Problem No. 1 :**

Enter your text strictly between \*-- and --\*. All the other area is off limit.

Answer To Problem No. 1 is : \*--Correct --\*

Main Idea Of Problem No. 1 is : \*-- Incomplete --\*

Solution Of Problem No. 1 is : \*--Correct --\*

Score For Problem No. 1 is : \*--5--\*

**Reviewer Comments For Problem No. 1 :**

\*--You did a good job on this one. The only thing I saw was that the main idea was lacking some information but it described what you did. But show of included taking the directional derivative using the dot product, but you work the problem right and I liked how you showed all your work! --\*

- **Force Field Analysis:** “Force Field Analysis is a general tool for systematically analyzing the factors found in problems. It frames problems in terms of factors or pressures that support the status quo (restraining forces) and those pressures that support change in the desired direction (driving forces). There are four steps to the process: (1) Defining the Problem, (2) Defining the Change Objective, (3) Identifying the Forces that Support Change, and (4) Identifying the Forces that Support Maintaining the Status Quo” (“Force Field Analysis”).  
*For more information, visit: [http://literacy.kent.edu/eureka/strategies/force\\_field\\_analysis.pdf](http://literacy.kent.edu/eureka/strategies/force_field_analysis.pdf)*

## Did you know?

More faculty development resources and support services can be found on [teaching.utk.edu](http://teaching.utk.edu).

## Reflection Activities for Metacognition

- **Exam Wrappers:** After a graded exam, give students a reflective sheet where they can describe their study strategies, analyze the mistakes they made, and plan their study strategies for the next exam. These reflection sheets are returned to students before the next exam, so that they can make use of the ideas they had when the previous exam was still fresh in their minds. Students identify several new approaches they would use in future exam preparation.  
*For more information, visit: <https://www.cmu.edu/teaching/designteach/teach/examwrappers/>*
- **Self-Assessment:** A process in which students collect information about their own learning experience, analyze what it reveals about their progress toward the intended learning goals and plan the next steps in their learning.
- **Stop and Switch:** At the end of class, ask students to write down five things they have learned (2 minutes). Second, ask them to pair with a partner; tell one student to talk for 2 more minutes about what he/she has learned. At the end of those two minutes, call for a STOP/SWITCH. The other student now talks for 2 minutes, but is not permitted to repeat anything that has been stated by his/her partner. After those 2 minutes, call for a STOP/SWITCH. Begin the cycle again with new partners and the same rules (not repeating what another student has said) but now for only one minute. Do the same for the other partner for one minute (call for a STOP/SWITCH). Finally, at the end of those 2 one minute intervals, ask each pair to now take 30 seconds to write one sentence that summarizes what they have learned (collectively).  
*For more information, visit: <http://blogs.arcadia.edu/sepche/files/2012/10/10.5.12-Metacognitive-Activities.pdf>*
- **Transfer Journal:** Students complete a chart using basic concepts they have learned in class while identifying different areas in which the concepts can be applicable.  
*For more information about this method and for a sample chart instructors can use with students, visit: <http://blogs.arcadia.edu/sepche/files/2012/10/10.5.12-Metacognitive-Activities.pdf>*

## Reflection Activities for Competency

- **Portfolio:** This type of documentation has become a vital way for students to keep records and learn organizational skills. Students gather artifacts of their learning experience along with written responses and reflection to provide evidence of their learning. Depending on the course, items may include photographs, videos, assignments, transcripts of interviews, and completed projects. Require them to make this professional. For service-learning especially, student portfolios could contain any of the following: service-learning contract, weekly log, personal journal, impact statement, directed writings, and a photo essay. In addition, any products completed during the service experience (e.g., agency brochures, lesson plans, advocacy letters) should be submitted for review. Finally, a written evaluation essay providing a self-assessment of how effectively they met the learning objectives of the course is suggested for the portfolio.
- **Video Presentation:** Have students develop a video that reflects their learning. Consider parameters for the best product (original text/pictures, PowerPoint video versus live shoots, length, and materials included).

- **It's Your Thing, Express Yourself:** Inform students that they will communicate their feelings toward a project (appropriate for service learning). Examples could include poetry, visual art, (paintings, drawings, sculptures) music (rap is a rather popular choice for this exercise), individually created games or puzzles, or any other creative outlet that gives students the chance to express their thoughts and ideas. This assignment may be completed individually or in groups. *For more information, visit: <https://sites.duke.edu/responsibleengagement/files/2015/04/Reflection-Activities-for-All-Classrooms.pdf>*

## Reflection Activities for Personal Growth & Change

- **3-Minute Pause:** “The Three-Minute Pause provides a chance for students to stop, reflect on the concepts and ideas that have just been introduced, make connections to prior knowledge or experience, and seek clarification. Possible prompts include:
  - I changed my attitude about
  - I am more aware of
  - I was surprised about
  - I felt
  - I related to
  - I empathized with” (Lambert, 2012).
- **What? So What? Now What?:** This process facilitates critical analysis of a given circumstance or experience. It allows the student to begin to make meaning and take initial steps towards developing a plan of action to address the concern. *For more information, visit: [http://www.sonoma.edu/cce/faculty/what\\_so\\_what.html](http://www.sonoma.edu/cce/faculty/what_so_what.html)*
- **Critical Incident Questionnaire:** This tool is used to gather information about how students are interpreting a learning experience. Its usefulness is underlined by the experience that student responses often differ markedly from what was expected on the basis of their own feelings in the classroom (Brookfield, 1995). This questionnaire asks students to comment on their feelings or opinions about a learning opportunity. In this questionnaire, learners are given the opportunity to reflect on the aspects of the experience that they felt most enhanced or hindered their learning. *For more information, you can visit <https://tinyurl.com/ciqsaintjohns> or <https://tinyurl.com/oxfordciq>.*

## References

- Angelo, T. A., & Cross, K. P. (1993). *Classroom assessment techniques: A handbook for college teachers*. San Francisco: Jossey-Bass.
- Carnegie Mellon University Eberly Center for Teaching Excellence & Educational Innovation. (n.d.). Exam Wrappers. Retrieved March 27, 2018, from <https://www.cmu.edu/teaching/designteach/teach/examwrappers/>
- College of Saint Benedict. (n.d.). Critical Incident Questionnaire. Retrieved March 27, 2018, from <http://www.csbsju.edu/learning-enhancement/individual-assistance/critical-incident-questionnaire>
- Engaging with Storyboards. (2014, January 30). Retrieved March 27, 2018, from <https://blogs.umass.edu/instruct/2014/01/30/engaging-with-storyboards/>
- Halcrow, K. (n.d.). Reflection Activities: Service-Learning's Not-So-Secret Weapon. Retrieved March 27, 2018, from <https://sites.duke.edu/responsibleengagement/files/2015/04/Reflection-Activities-for-All-Classrooms.pdf>
- Lambert, K. (2012, April). Tools for Formative Assessment. Retrieved March 29, 2018, from <https://www.utwente.nl/en/examination/faq-testing-assessment/60formativeassessment.pdf>
- Metacognitive Activities. (n.d.). Retrieved March 27, 2018, from <http://blogs.arcadia.edu/sepche/files/2012/10/10.5.12-Metacognitive-Activities.pdf>
- Morgan, K. (n.d.). What Is a Good Way to Start Writing a Reflective Essay? Retrieved March 27, 2018, from <https://penandthepad.com/good-way-start-writing-reflective-essay-5879.html>
- Ohio Literacy Resource Center. (n.d.). Force Field Analysis. Retrieved March 27, 2018, from [http://literacy.kent.edu/eureka/strategies/force\\_field\\_analysis.pdf](http://literacy.kent.edu/eureka/strategies/force_field_analysis.pdf)
- Oxford Learning Institute. (n.d.). Critical Incident Questionnaire. Retrieved March 29, 2018, from <https://www.learning.ox.ac.uk/media/global/wwwadminoxacuk/localsites/oxfordlearninginstitute/documents/support-resources/lecturersteachingstaff/developmentprogrammes/CriticalIncidentQuestionnaire.pdf>
- Prior Knowledge Checklist. (n.d.) Retrieved March 27, 2018, from [http://www.cpalms.org/Uploads/resources/72937/Assessment/FormativeAssessment/docs/Prior%20Knowledge%20Checklist%20\(1\).pdf](http://www.cpalms.org/Uploads/resources/72937/Assessment/FormativeAssessment/docs/Prior%20Knowledge%20Checklist%20(1).pdf)
- Sloan, D. (n.d.). Reflection Activities: Tried and True Teaching Methods to Enhance Students' Service-Learning Experience. Retrieved March 27, 2018, from <http://www.usf.edu/engagement/documents/s-l-reflection-activities.pdf>
- Sonoma State University Center for Community Engagement. (2017, August 10). What? So What? Now What? Retrieved March 27, 2018, from [http://web.sonoma.edu/cce/faculty/what\\_so\\_what.html](http://web.sonoma.edu/cce/faculty/what_so_what.html)
- Teaching and Learning with Concept Maps. (n.d.). Retrieved March 27, 2018, from <http://www.inspiration.com/visual-learning/concept-mapping>
- UTK Writing Center. (n.d.). Informal Writing Assignments. Retrieved March 27, 2018, from <http://writingcenter.utk.edu/for-faculty/informalwriting/>