Reflecting on Reflection

Mirror, mirror on the wall…

…What did this assignment mean to me?
…What did this assignment help me learn?
…What did this project reveal to me about technology?

In the Disney classic “Snow White”, the wicked Queen stands in front of her magic mirror and asks “who is the fairest of them all?” If each of us had a magic mirror, we could ask it what we learned from particular events in our lives. It could show us how we were before the event, our involvement in the actions of the event, and how we are after the event. We could see how we changed as a result of the event.

We do not have magic mirrors that will give us this information. But, we do have the ability to reflect on our experiences. We can remember where we were and what we thought before, during, and after the event. And, we are able to put those memories into words or pictures in order to share this information with others. Having done this, others can understand how the event changed us, our thinking, and our perspectives. In other words, they can see what we now know as a result of the experience.

What is reflection?

Kilbane and Milman (2003) define reflection as “taking the time to think and contemplate metacognitively” (p. 63). The process of reflection involves thinking carefully about those events that happened in the past and blending them with what we know to create meaning about the event (Kilbane & Milman, 2003; Montgomery & Wiley, 2004). To Wyatt and Looper (1999), reflection is a very personal process. It presents your thoughts as you experienced the event, your interpretation of the event, how you changed as a result of the event, and what you might do differently, or the same, should the event present itself again (Foster, Walker, & Song, 2007).

Foster, Walker, and Song (2007) suggest reflection can take place in action and on action. During the event, we reflect on what we know from previous experiences to help in our decision-making processes. After the event, we can reflect back on what happened and our response to the event. This dual nature of reflection can support the actions we take in future events.

Reflection teaches us there is no such thing as failure, only the development of personal insight from one’s experiences (Bullock & Hawk, 2005). As my interpretation of an event may differ from yours, so to will my reflection of the event differ from yours. I may learn certain things from an event that you already know, and the opposite is just as true. We take from our experiences what we need to fill the gaps in our knowledge, and these gaps differ from person to person.
Reflection also allows us to compare our knowledge, skills, and attitudes against standards which measure success. Standards may be set by us based on our own goals and ambitions. We may have created personal challenges that motivate us to succeed, and by reflecting on events, may be able to determine our shortfalls and our achievement. On the other hand, standards may be set for us, quite often coming from the organizations to which we belong. Teachers often have standards set by the school divisions or state boards of education for quality of teaching. As IT professionals, we have standards set by the AECT through which we are able to demonstrate our knowledge and skills in IT.

How do I do a reflection?

Before we are ready to write about our reflection, we must reflect. To realize our understanding of something, we need to take the time to ask ourselves those types of questions which probe deeper into our understanding (Montgomery & Wiley, 2004). The answers we receive should help us see where our understanding may differ from what we previously understood. In the end, reflection should help us process the information from a new experience, assignment, or project, and prompt us to continue learning.

According to Kimball (2003), a written reflection is your opportunity to convince the reader about something. You may be convincing the reader about the value of the learning experience, the impact the project had on your design and development skills, or how your perceptions changed as a result of responding the questions in the assignment. Kimball refers to the process of putting your reflection into words as textual rhetoric.

Bullock and Hawk (2005) consider reflection a process of describing, analyzing, and determining the future impact of an event. We begin by describing the facts of the experience – the who, what, when, where, and how. We also describe our part in the experience, whether we are simply an observer or right in the middle of the action.

During the analysis, we look back through the experience for recurring events, or patterns, that helped us learn from the experience. Patterns may appear as strengths and weaknesses, successes and failures, the reasons for the experience, what we thought about the experience, and how the experience affected us. As we look for these patterns, we are comparing the new experience to those of the past, and reach conclusions about the value of the experience. This type of analysis helps us develop our critical thinking skills.

Finally, in determining the future impact, we want to make notes of the aspects of the experience and their perceived value to our learning. We may want to repeat some aspects of the experiences due to their high value to us. We may want to adjust aspects of the experience before we apply them in a new situation. We may have incorporated a new perspective or procedure as we completed an assignment and want to try it in a new and different assignment before we assess its value to us. In the process of completing a project, we may have experienced that “AHA” moment where aspects of our understanding come together and support prior experiences and learning, and look forward to how the work of that project may be applied in a new setting.
In writing your reflection, Bullock and Hawk (2005) suggest keeping these points in mind:

1. Write in the first person. This makes the reflection more personal, and gives the reader a sense that they are being allowed to view the thought processes that created your experiences.
2. Keep your description accurate. However, the reader will need more than a superficial analysis of the event to fully comprehend the impact this event had on the changes you experienced.
3. Write well. There should be no grammar or spelling errors. Use the spell-check and grammar-check tools in your word processor.
4. Be accurate and honest. Present an honest account of the event. This is not the time to embellish the facts. This is not the time for creative writing. Staying to the facts puts the reader in the same context as the one you experienced, and brings the reader closer to understanding your experience.

In summary, as we write about our reflections, we should be able to demonstrate and convince the reader of:

- careful thought about our knowledge, skills, and attitudes
- self-assessment of our abilities
- development of critical thinking skills
- description, analysis, and determination of the future impact of something
- growth in learning or toward certain goals

**How do I reflect on a reflection?**

You’ve written your reflection. How do you determine if it’s a good reflection?

First, does it meet the descriptors of a reflection? Does it demonstrate:

- careful thought about something
- self-assessment
- development of critical thinking skills
- description, analysis, and determination of the future impact of something
- growth in learning or toward certain goals

Second, as Kimball (2003) suggests, does it convince the reader of something? Does it convince the reader that you:

- gave the event careful thought about the impact of the event on our knowledge, skills, and attitudes
- assessed your abilities prior to the event and afterwards
- are able to critically think about the event and its impact on your perspectives
- are able to describe the event, analyze the patterns that developed, and determine the impact this even may have on future events
- that you’ve grown in your understanding or confirmed the understanding you had prior to the event
Third, considering the points made by Bullock and Hawk (2005), is your reflection:
- written in the first person?
- described only at a superficial level?
- clear of spelling or grammar errors?
- accurate and honest?

Reflection in the ITMA Program

Throughout the ITMA program, written reflections are incorporated in two ways. First, some assignments asked you to reflect on experiences, applications of information from the lesson, or your learning as a result of a completed project. In other words, reflect *in action*. You may have reflected on the ways you incorporated technology into your classroom and how information in the lesson influences the ways you can in the future. You may have reflected on your perception of technology before you started the program and how your new knowledge changed those perceptions. You may have reflected on your experiences and changes in your understanding as you made choices in the completion of an assignment or project.

As you are assembling your portfolio, we ask you to reflect in a second way – *on action*. The process of selecting artifacts to represent your abilities is as subjective as the process of writing a reflection. Through your reflection on each component of your portfolio, you will be able to select the artifacts that are the best indicators of your abilities. You will be able to connect what you learned from the assignment to your understanding of the component. The process of selecting artifacts and reflecting on their value will also help you reflect on the program as a whole unit of instruction. How did the program help you understand technology, and the role of technology in education? How did the program help you meet your goals? How has the program contributed to your continued learning?

Reflection in the Portfolio Development Process

A portfolio without reflection is not a portfolio; it’s simply a scrapbook of artifacts (Montgomery & Wiley, 2004). Reflection provides context and meaning to the artifact you are reflecting upon. It gives the reader a sense of your understanding of the requirements of the artifact and how you reached this understanding. It places the artifact in the big picture of the program and your learning while in the program. Reflection makes your portfolio authentic to you (Wyatt & Looper, 1999).

You must be able to demonstrate why the particular artifact was chosen and how it fits the requirements. Therefore, you will need to understand the components and reflect on how your artifact meets the requirements of the component. Kilbane and Milman (2003) suggest asking yourself these questions:
- How does this artifact demonstrate competence in a particular standard or your chosen framework?
- Why did I include this artifact? Why is it important to me?
- What did I learn as a result of using and/or creating this artifact?
How would I do things differently as a result of the artifact? (p. 63)

In Conclusion

It appears we have magic mirrors after all. Reflection is our magic mirror. Reflecting on our experiences can tell us more than the Queen was ever able to learn from her mirror. The Queen could only see the present. Reflection helps us with future events, by knowing what happened in the past.

REFERENCES


-Mary Ellen Pierson
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