

Wicked Problems: Allowing Failure to be a Powerful Learning Mode in Education

The problem we have chosen to address is “Allow failure to be as powerful a learning mode as success” (The New Media Consortium, 2013, p.2). This problem is important to us as educators because we want our students to see failure as an opportunity to learn and have skills necessary for their life outside of public education. The New Media Consortium wrote in their 2013 Communiqué that seeing failure as a learning mode requires the following elements: refinement of an initial idea and encouraging students to take risks.

To approach this problem, we first suggest that the education system breaks out of the idea of “right” and “wrong” answers and move more towards multiple ‘correct’ answers that can be approached in a variety of ways. James Paul Gee refers to this as “skill and drill” which he states “needs to be replaced by actual thinking problem solving skills” (Gee, 2013, p.XIV). Students will be more comfortable with taking risks when the fear of being wrong is eliminated. In a 2006 study, Ellis, Mendel, and Nir researched the effects of ‘after event review’ (examining mistakes and revising failed ideas) on learning. They found that “the most effective review is of wrong actions” (2006, p.669) and that students in their study learned more when they had the opportunity to review and improve upon their mistakes. The New Media Consortium raises an important concern when they ask “How can we ensure that the next series of great discoveries will be made?” (2013). Discoveries are made when innovators are trained to think complexly, innovate, and are not afraid of failing.

The second component to our recommendation focuses on collaboration as a tool for refinement. In his book *The Anti Education Era*, Gee described the importance of collaboration and creation of what he names ‘Minds’. He wrote “What if human minds are not meant to think for themselves by themselves, but rather, to integrate with tools and other people’s minds to make a mind of minds?” (2013, p. 150). Collaboration between students can be a powerful learning tool. Peer editing will allow students to work together with others to solve problems, learn from mistakes, and find solutions. This will help make single minds become innovative, risk-taking Minds.

One of the complexities of solving this wicked problem is how to approach technology use. It is important to choose a technology tool that supports collaboration while also enhancing content knowledge. In their article about TPACK and Web 2.0 Nelson, Christopher, and Mims wrote “Web 2.0 technologies support creative and collective contribution” (2009, p.80). Our team chose to use Google Docs based because “The results of combined and peer edited knowledge are such that the sum is greater than the individual parts.(Nelson et. al,2009, p.80). Google Docs is tailored to allow collaboration between individuals and ideas. Lastly Google Docs are familiar to most teachers and students, so applying it to classroom use in a new way would be very achievable.

We suggest a model of education that combines Gee’s theory of Minds and the Consortium’s ideas of risk and refinement to make failure a powerful learning mode. Students

receive an assignment or content to master. The students learn the content but there are still some holes and aspects that are not understood. Students collaborate with their peers and receive comments and feedback about what could be changed or improved. The students would then make the changes and learn from them. After changes were made students would submit assignment to the teacher and receive feedback yet again on how to improve their understanding on the assignment. Students continue to improve and make changes based on teacher comments. Finally students would submit the assignment and receive a grade. By using this process of peer review and collaboration in conjunction with guidance by a teacher or instructor the student would have multiple opportunities to learn from their failures. Students also would not be punished by taking risks and thinking outside the box for a solution.

A classroom environment where students are not afraid to take risks while learning and encourages collaboration allows students to learn from each other as well as from ones mistakes. A classroom where students learn from their success and failures moves the education system closer to solving this wicked problem.

References

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