

5-10-2017

## Getting Comfortable with Failure and Vulnerability to Facilitate Learning and Innovation in the Game of School

Szymon Machajewski  
*Grand Valley State University, machajes@gvsu.edu*

Follow this and additional works at: <https://scholarworks.gvsu.edu/cisotherpubs>



Part of the [Education Commons](#)

---

### ScholarWorks Citation

Machajewski, Szymon, "Getting Comfortable with Failure and Vulnerability to Facilitate Learning and Innovation in the Game of School" (2017). *Other Scholarly Publications*. 2.  
<https://scholarworks.gvsu.edu/cisotherpubs/2>

This Article is brought to you for free and open access by the School of Computing and Information Systems at ScholarWorks@GVSU. It has been accepted for inclusion in Other Scholarly Publications by an authorized administrator of ScholarWorks@GVSU. For more information, please contact [scholarworks@gvsu.edu](mailto:scholarworks@gvsu.edu).

Getting Comfortable with Failure and Vulnerability to Facilitate Learning

and Innovation in the Game of School

Conference paper: Mount Pleasant, Michigan

May 10th, 2017

Great Lakes Conference on Teaching & Learning

by

Szymon Machajewski

Grand Valley State University

May 2017

## Abstract:

Schools should teach students how to fail fast and safely in order to learn and to allow innovation through vulnerability. The lessons that the gaming culture has for learning will define future strategies of teaching and learning. Games are sometimes called well-designed work. As a result, people flock to them. The secret of engagement in games can be adopted in academia as soon as courses become well-designed games.

## Table of Contents

Introduction.....	4
The Value of Failure .....	5
Brief History of Failure.....	7
Empathy and Failure.....	8
Gamification .....	8
References .....	10

## Introduction

Let me open with a story about the Vikings. The Sagas, stories about the mythology of the Vikings and their culture, were written by their slaves in Iceland centuries after the historical events. The Viking successes and failures are difficult today to understand accurately, because they are hidden behind a fog of mysticism and embellishment. At the same time, the western history of the Vikings was written by the Catholic monks, who were often the victims of Norsemen raids. As the Romans used to say, the history is written by the victors. This is true for the Vikings age events, but also for most stories involving failure. We tend to listen to the survivors and their success stories, which leads to the survivor bias – we know how to be successful, but we don't know the many ways of why failure happens and how to value it.

A dictionary definition of failure may be as simple as “lack of success”. Additional definitions may indicate “the neglect or omission of expected or required action”, “the action or state of not functioning.” These general definitions only scratch the surface of the cultural stigma associated with the word failure. Academic institutions contribute heavily to this stigma. One way is by using the “F” grade to show insufficient progress by a student on an assignment or in a course.

However, academic researchers and business professionals are proposing some new definitions to the concepts of success and failure, primarily to promote the learning opportunities that are embedded in both. Here are some of those alternative views:

1. Success is failure to fail
2. Failure is a precondition for success
3. Success is not the opposite of failure

4. Failure is a lost opportunity

5. Failure is an unwelcome outcome that matters

### **The Value of Failure**

The alternative views on failure are important, because they indicate that there is a value in failure, albeit hidden. John Danner and Mark Coopersmith wrote a book entitled “The Other ‘F’ Word: How Smart Leaders, Teams, and Entrepreneurs Put Failure to Work” (Danner, & Coopersmith, 2015). The authors point out that a failure value cycle may be applied to failures. The extraction of value, or learning, from failure takes place through a 7-step process: respect, rehearsal, recognition, reaction, reflection, rebound, and remembering. They suggest that a business process can be created to make failure safe, make it a learning experience, and make the business more successful in the long-term. Speaking about failure and making its reporting safe is a key to an innovative culture of a company.

A professor from the Harvard Business School, Amy Edmondson, published an article in the Harvard Business Review “Strategies for Learning from Failure” (Edmondson, 2014). She suggests there are three types of failure: preventable, complexity-related, and intelligent. Preventable failures would be due to human error and a simple checklist may be a way to address it. Complexity-related failures are caused by inherent risk and uncertainty. These could be prompted by small, preventable failures, but in a specific environment and in a sequence of combination of needs, people, and problems they occur system-wide and, once initiated, seem unavoidable. The third type of failure, the intelligent failure, means a result of innovation or experiment, which was not expected and intended. The third group of failures inherits the negative emotional

connotation from the first two, but it is different and it is an opportunity for learning and growth.

Why are we so concerned with failure and our attitude towards failure? Let's take a look at what happened in an environment, where failure was not an option. In 2014 at the Malmstrom Air Force Base a scandal broke out (Chuck, Kube, & Miklaszewski, 2014). About 50% of the 190 nuclear officers, who were subject to an honor code and were trained as critical thinkers, were found to be associated with a monthly examination cheating process. The culture on the base was to maintain a zero-defect environment, which meant 100% accuracy on monthly exams.

Another source of concern about the culture of failure is in the Big Data phenomenon. Today, Big Data informs business strategies, prediction of disease breakout, and many other previously unpredictable trends. However, students from Michigan's Macomb Community College presented their fears at the Edu Con 2.9 conference in Philadelphia. The students claimed that schools will predict their failure with Bid Data before they even have the chance to fail (Dobo, 2017). This also means their failure will be predicted before they have the chance to succeed.

This is no longer just a theoretical concern. In a statement, which went viral on the Internet, a president of the second oldest Catholic university in the US said to "drown the bunnies" (Svrluga, 2016). He meant freshmen, who showed signs of low performance. Kicking them out of the school was a way to improve retention rates. A school of about 2,300 students could dismiss 20 to 25 freshmen judged unlikely to succeed early in the academic year to submit official enrollment data in late September. The statement made to the faculty was: "this is hard for you because you think of the

students as cuddly bunnies, but you can't. You just have to drown the bunnies ... put a Glock to their heads."

### **Brief History of Failure**

The history of how people treat failure tends to fall into extremes. The Greeks respected the noble failure of the 300 who protected Sparta (School of Life, 2015). They celebrated plays, which depicted terrible things happening to good people not for their fault, but because tragedies happen in life. Romans felt differently. Upon losing the war in Germania general Publius Quinctilius Varus was expected to kill himself as it was the custom. Failure was too shameful and humiliating to allow him to continue.

Another view of failure was introduced by Jesus Christ, who claimed that failure in human eyes could be seen as a noble, especially in the eyes of God. Financial failure of a widow who put two little coins in the temple coffers was a success of sacrifice and spiritual maturity.

Meritocracy, introduced by Napoleon, put focus not on riches or position in the society, but on the performance and ambition of the human. Anyone could be recognized and rewarded if they performed well. Success was attributed to the talents and effort of the person. Failure was no longer accidental, or morally neutral, but it was the doing of the person, it was deserved.

This mixture of historical ideas about failure affects our faculty and students. They bring into the classroom confusing beliefs about failure. We may agree on being kind and empathetic to those who are not performing well academically, but we expect meritocracy to rule gradebooks and graduations.



## **Empathy and Failure**

Our common ground in the discussion of failure must start with empathy. To do so, let's consider the work of Dr. Brene Brown, who writes about shame and vulnerability (Brown, 2010). "Shame is an epidemic in our culture, to get out from underneath it, to find out a way back to each other, we have to understand how it affects us, the way we parent, the way we look at each other." Making a connection from meritocracy to democracy may be also helpful. Alexis de Tocqueville, in the 19<sup>th</sup> century, claimed that democracy breeds envy and shame, because it suggests that anyone can become just about anything if they put their mind to it (Tocqueville, Mansfield, & Winthrop, 2000). When this does not happen, there is no one else to blame but ourselves.

Coming to terms with shame and vulnerability is important to learning and to innovation. Dr. Brown continues: "Vulnerability is the birthplace of innovation, creativity and change." If this is the case, then emotional intelligence may be the key in understanding failure.

The business industry is already catching on to the empathy element. Design Thinking, an innovation process that solves extremely complex problems, starts with building empathy with customers. In Design Thinking failure is expected and desirable. The step of prototyping means failing together along with testing together. Accelerated failure is a tool for generating success.

## **Gamification**

Gamification is another approach to learning and motivating people that is connected to empathy. A study from the McGill University shows that playing games for

as little as 15 minutes builds empathy toward strangers (Mogill, 2015). Can empathy be built in the classroom by using gameful design?

Gamification allows for the introduction of gameful design into the classroom and it holds a promise of scalability to address introductory, large enrollment courses as well as smaller, advanced classes. Games can be defined as “voluntary attempt to overcome unnecessary obstacles”, which reminds us of academic pursuits, such as courses (Suits, 1978). Also, games are the few environments, where people seek out failure (Juul, 2013). Seeking out failure means tackling the same assignment multiple times to improve the grade, to make progress, and finding enjoyment in making the progress.

Faculty who are considering gamification of their courses should ensure that they are using peer-reviewed research in the instructional design of their courses. Providing clear instructions is a foundation of most games. Games with unclear rules and mechanics lead to negative emotional responses. Gamification in courses should be considered only after a course has reached a mature level of instructional design.

Faculty are invited to adopt a new gamification system available at <https://game.dataii.com>. The system builds engagement in faculty and in students while maintaining the course curriculum. The gamification system works as an autonomous activity for students, which allows for completion of various subject matter missions to promote practice and content exploration.

## References

- Brown, B. (2010). *The Power of Vulnerability*. Retrieved from [https://www.ted.com/talks/brene\\_brown\\_on\\_vulnerability](https://www.ted.com/talks/brene_brown_on_vulnerability)
- Chuck, E., Kube, C., & Miklaszewski, J. (2014). 92 nuclear missile officers implicated in cheating scandal, Air Force says. NBC News. Retrieved from [http://usnews.nbcnews.com/\\_news/2014/01/30/22508088-92-nuclear-missile-officers-implicated-in-cheating-scandal-air-force-says?lite](http://usnews.nbcnews.com/_news/2014/01/30/22508088-92-nuclear-missile-officers-implicated-in-cheating-scandal-air-force-says?lite)
- Danner, J., & Coopersmith, M. (2015). *The other "F" word: how smart leaders, teams, and entrepreneurs put failure to work*. Hoboken (N.J.): Wiley.
- Dobo, N. (2017). Students' worry: education technology might predict failure before they have a chance to succeed. Retrieved from <http://hechingerreport.org/students-worry-education-technology-might-predict-failure-chance-succeed>
- Edmondson, A. C. (2014). *Strategies for Learning from Failure*. Retrieved from <https://hbr.org/2011/04/strategies-for-learning-from-failure>
- Juul, J. (2013). *The art of failure: An essay on the pain of playing video games*. MIT Press.
- Mogill, J. (2015). *The secret of empathy*. Retrieved from <https://www.mcgill.ca/channels/news/secret-empathy-241112>
- School of Life, (2015). *History of Ideas - Failure*. Retrieved from <https://www.youtube.com/watch?v=6IUj6jyoTl0>
- Suits, B. (1978). *The grasshopper: Games, life, and Utopia*. Toronto: University of Toronto Press.
- Svrluga, S. (2016). University president allegedly says struggling freshmen are bunnies that should be drowned. Retrieved from <https://www.washingtonpost.com/news/grade-point/wp/2016/01/19/university-president-allegedly-says-struggling-freshmen-are-bunnies-that-should-be-drowned-that-a-glock-should-be-put-to-their-heads/>
- Tocqueville, A., Mansfield, H. C., & Winthrop, D. (2000). *Democracy in America*. Chicago: University of Chicago Press.