A look of frustration passes over the high school student's face as he stares towards the front of the classroom. The click-clack of chalk on the board makes a kind of background rhythm to the lecturing of the teacher. There is nothing wrong with what the teacher is saying: the information that flows out of the teacher's mouth is perfectly valid, the material you would encounter in any classroom teaching the same subject. The delivery isn't bad either. The teacher doesn't stutter and the words are not jumbled. Formulas, examples, stock questions and stock answers cover the chalkboard and fill the air. But the student doesn't get it. The information that flows from the teacher does not stick. There is nothing wrong with him, and it's not like he's slow or unable to learn. He simply can't connect with the way that the knowledge is being pressed into him. He wants to, and he listens, his pencil tapping on his notebook but not writing anything. Instead, the words transform into a weight pressing down on him as he feels himself falling more and more behind, lost. The method doesn't fit. He begins to not care. Why does any of it matter anyways? There's no connection to his life. As far as he is concerned, the entire point is only to prepare him for the next test, be it SAT, TAKS, or any other of the multitude. Sighing, the student sits back and gives up on trying to absorb the information. The thought passes through his head as he looks at the elaborate construction of formulae on the board: "Well, it's not like I'd ever use this anyways..."

It's a common experience in schools everywhere, and I'm sure we've all felt like that some time in our lives. Learning is not a monolith. Different students learn in different ways, this is common knowledge. Some of us learn best by hearing, some learn best by reading, some learn best by writing what they hear. But the wound goes even deeper than this. There is a fundamental flaw in the way that we teach our children, a dangerously exposed weakness in our modern

educational systems. The problem lies at the root of our modern ways of learning, the result of a system expanded beyond belief and in its need to cater to its own success, gone horribly wrong. The percentage of our population that gains the invaluable experience of an education is far higher than any other time in human history. We live in an age where it is actually required for children to attend school. If you had told a peasant in Europe a mere 300 years ago that his children would have mandatory education, he would have laughed in your face! But tragically, the price we pay for expanding out learning institutions so far is heavy: in the majority of middle and high schools, our approach to education is that of the funnel. The teacher deposits a predetermined amount of knowledge into the student, and the student regurgitates it on an examination to demonstrate his mastery of the knowledge. It is an industrial method, more akin to a factory churning out mass produced models than a craftsman producing a masterwork.

But what does a good grade on these examinations really mean? Ideally, the student has learned the knowledge that has been imparted to him. They know the important details of the information for now, certainly. But do they know how it works? Do they know the meanings? And can they properly apply it? In many cases, sure they can. But in some areas, studies show otherwise. When incoming college Freshmen take their first Physics course, they learn Newton's laws of motion. Most of them have no problem writing it down when asked. But when asked to actually solve a problem that they can be used to deduce, most of them get it wrong (Gee, 24). Students like this have entered the world of physics, but only as passive voyagers on the sea of knowledge, cast hopelessly adrift on the waves. They know the content, but they cannot use it to produce meaning in physics. So what good is it to them? Maybe a kernel to expand upon later or an answer to put on a piece of paper, but at this point the educational system has failed them in a

practical sense. I'm sure that if you look back into your past, you'll encounter plenty of places it has failed you too.

What I've been talking about thus far is what could be called passive learning. Its opposite number then, logically, could be called active learning. One the simple way to define this is to say that students approach their learning with an eye towards experiencing the world in new ways, in light of new information, drawing the connections between different information and groups, and laying the groundwork for learning in the future. Basically, the student learns how to think both inside and outside the box through problem solving. Unfortunately, doing this to large number of students on any meaningful level is impossible for a single teacher. They just can't be everywhere at once, and don't have the time! So how do we seal these wounds in our educational system by giving students a way to learn in a more hands on, engaging environment? The answer might surprise you: Video Games.

Video games in the class room? It seems to turn the world upside down, but good video games have just what we're looking for to solve the woes of our mass produced learning. And no, what is being argued here isn't for Call of Duty in the classroom. The silver bullet here is the ability of video games to engage students and draw you into new worlds. From there, your knowledge slowly grows as you learn the basics and begin to apply them. Slowly you explore your space, gauging the environment around you, understanding its processes and the logic behind it. A wrong move in one place results in a failure, a setback, while a right move elsewhere gets you through. Slowly the challenges grow more complicated, become more involved. They take more effort, more finesse, more knowledge. It comes at you fast and hard, threatening to send you back to where you came from if you can't rise to the task, resetting your

progress. Adrenaline pumps through your veins, your senses sharpen and you become absorbed into the screen. Your attention is riveted. Tension siezes your body as you face a difficult problem and struggle frantically to recall everything that you have learned so far and come up with the right solution. You have to innovate! You have to apply the concepts you have learned in a new way! The exhilaration and the thrill as a challenge is cleared, an obstacle overcome! But it is too soon to simply wait, because the next stage is already closing in fast and will put you more to the test than anything you've encountered yet.

The mask of the game is there, but what lurks beneath is an engine that does exactly what we can only hope our traditional learning could do: take a fresh beginner in a subject and, through time and effort, create someone who can demonstrate a mastery of the subject. What the student is doing isn't just regurgitating answers drilled into them, but innovating and creating new paths with the tools that they have been given. Games have more resemblance to the scientific method than many actual science courses do: they require the player to "hypothesize, probe the world, get a reaction, reflect on the results, and reprobe to get better results (Gee, 216)." What higher praise could you have for a method of learning?

The principles in games are every bit as valid outside of the games themselves, and provides us with a road map to build a better, smarter educational system. For instance, games cause the player to integrate and create new identities, stepping off into a brand new undiscovered world to them. They adopt new identities and perspectives, becoming new people that they could never have imagined being. Players create the game as they play it, choosing their own path and designing the world with every decision they make, creating their own custom learning experiences. Players that fail simply restart from their last saved game, which leads to

more risk taking and exploration and removing the fear of permanent consequences in a mistake. At the same time, this ability to fail and face disappointment is another important skill for students to learn while in a safe environment, and is something that our traditional system has veered sharply away from in recent times. Games let players challenge problems at their own pace and practice them as they see fit until they reach mastery - and then throw new problems at them. This makes them regroup and come up with new answers, causing a consolidation of their new knowledge in order to prevail. Isn't the ability to learn in this way itself an important skill to teach our children? This cycle of the thrill of success, the frustration of a new challenge, and then the triumph of overcoming adheres far more to how we strive in our everyday lives than the funnel approach. In the end, games promote performance before competence, and create competence through performance. They teach the ins and outs, the basic and the advanced in digestible, progressing chunks.

So does this mean we take games as they are and shove them into classrooms? That's not what I'm arguing for. What we should look for isn't a way to bring the thrill of letting loose a magazine of hot lead at an enemy to the classroom, but the puzzling, slightly frustrating escalation of challenge inherent in a good game to our way of learning by exploring new supplemental teaching methods taking their inspirations from game principles. Not a total shattering of the old ways, but a mending, a healing of the wounds produced by our exploding system. What we have to do is take that child that sits hopelessly lost adrift in the classroom and find a way to engage him in learning in a functional way. We teach him in a way that the knowledge becomes a tool to explore his space. We take those college students that can tell us Newton's laws of motion and have them discover them for themselves through trial and error,

feeling the thrill of success or the need to try again in failure. If the meaning of a word for

someone is more words, that's a definition. If the meaning of a word is an understanding, a

network of actions, thoughts and experiences - that's something that has been truly learned.

Gee, James Paul. What Video Games Have to Teach Us About Learning and Literacy. New York:

        Palgrave MacMillan, 2003. Print.