Multiplayer Online Role Playing Game for Teaching Youth Finance in Canada

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ABSTRACT
It has been stated that people need to improve their knowledge of finances and make better choices with their money. Many programs have been created to teach basic finances. These programs target people of all ages from adults all the way down to kindergarten students. The vast majority of opinions on teaching finances state that education begins with children – the younger the better. The goal of this research is to create a fun to play multiplayer online role playing game (MORPG) capable of teaching younger students how to better manage their personal finances. The game is designed as an educational tool with an attempt to balance both the entertainment and educational components. It simulates a real world where the player must make financial decisions for their avatars in an attempt to develop enough wealth to allow the avatars to retire at a specified age.

Keywords: Children, Educational Game, Finance Education, Game-Based Learning, Money Management, Multiplayer Online Role Playing Game, Youth

INTRODUCTION
Thirty years ago all a person needed to know was how to balance a chequing account and maintain a savings account. Today there are many more financial services, products and providers a person must be familiar with. When a person lacks the appropriate financial knowledge they are susceptible to making poor choices in selecting products and services. If properly educated the same person may make better financial decisions. This leads to better consumers who are able to save and invest in their own future (Greenspan, 2005).

The vast majority of opinions on teaching finances state that education begins with children – the younger the better (Alt Powell, 2004; Calapp, 2002; McCormack, 2007; Pachner, 2008; Truong, 2010). A child is much more willing and able to learn new concepts. In addition, a person’s financial affairs have as much in common with attitudes and behaviors as they do with practical skills (Personal Finance Education Group, 2009). Starting to teach children early instills the proper attitudes and behavior which will allow them to be successful later in life. When these children become adults they...
are better able to handle money effectively (Alt Powell, 2004) and have better financial habits (Truong, 2010) so they are more likely to be financially successful.

Children are first exposed to financial matters through their parents. A child will often follow in their parents footsteps, making the same financial decisions. If the parents are not properly educated, their children will learn the same bad habits. In order to properly teach children about finances their parents must be money wise (Orman, 2010).

While the vast majority of opinion agrees that parents are the first to teach their children, there is disagreement on how it should be done. An allowance is the most common method. Many parents just give it (Alt Powell, 2004; Calapp, 2002; Greenspan, 2005), while others require it be earned (McCormack, 2007; Orman, 2010; Truong, 2010). Some parents require some be saved (Alt Powell, 2004; Calapp, 2002; McCormack, 2007), for others saving is optional (Truong, 2010). Parents may require their children to buy items they want themselves (Orman, 2010; Pachner, 2008) while others may help (Alt Powell, 2004; Calapp, 2002; Greenspan, 2005).

Giving an allowance exposes a child to money and purchasing, but the question of whether it scales well to financial knowledge at an older age must be asked. Their allowance is used for discretionary items only. Required items such as food, clothing, shelter, etc are still provided by their parents. The requirement to save may not be fully understood either. Short term savings (two or three weeks allowance to buy a toy) is one concept, but long term savings for a home down-payment or retirement are another.

Creating a game where the player is in control of their avatars financial future may be able to teach basic and advanced financial skills. The players will be able to try different financial tactics and see their results. These financial decisions will include most of the decisions that need to be made by today’s adults living in the real world.

This paper is organized as follows: First we discuss the research and evaluation done on how financial concepts taught at various stages, from adults down through preschool students. It also looks at why using a MORPG would be a good approach for teaching finances. We discuss how the game is to be designed, financial topics included and a description of how the game would be played. We then focus on how the game is implemented. We share our experiences and outlines the evaluation plan of the game. Lastly, we provide recommendations for further work and improvements to the game.

FINANCE EDUCATION

In recent years the financial landscape has changed dramatically. There is a multitude of complex financial options choose from. Consumers may make financial decisions without any assistance and may not receive any feedback on the value of the products they purchase. In addition, they do not plan properly for retirement, borrow money at higher interest rates and do not have the ability to acquire assets (Cole & Nilesh, 2008).

Several studies prove that a lack of financial literacy contributes to poor financial decisions. In one study that included questions on personal finance and economics, adults obtained an age of C while students fared much worse with a mark of F (Lusardi & Mitchell, 2007). Saving is not given enough importance - only 68.5% of high school students had a savings account (Lusardi, Mitchell, & Curto, 2010), while less than half of students in senior high and college regularly saved and only half admitted saving was important (American Savings Education Council, 1999). Much of the problem is knowledge perception - many believe they are making wise decisions. In a 2003 study, 80% of the participants had confidence in the financial decisions they made, however only 42% of the participants answered financial questions correctly (Lusardi & Mitchell, 2007).

Much of the problem with a lack of ability is an absence of appropriate training. In the
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