

Chapter 6

Beauty or the Beast: Importance of the Attraction of Educational Games

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ABSTRACT

Educational games are often less attractive than entertainment games in visuals, gameplay, and other aspects, but do we need entertainment-level beauties in our education or are beasts sufficient? To identify the importance of attraction for educational games, the authors offer the results of a comparative analysis of five educational games used and evaluated from 2005-2010 (N=754). They operationalized attraction through statements in which players were asked to rate the games' visual, gameplay, and user interface attractiveness. While some scholars argue that for game-based education to become successful, educational games need to be visually more attractive, the results of the analysis show the opposite. For educational games, attraction is of relatively low importance. The authors further found that gameplay is the most important aspect of attraction and visuals the least. These results contribute to the debate amongst designers and educators on what priorities to set when considering game-based education.

INTRODUCTION

The “beauty” of a game is difficult to judge. It is subjective, for sure, but it can even be questioned whether it is possible to capture the beauty of a game in words. This problem goes beyond games. It is applicable to any form of art, from movies to music. Just as it is hard to explain why the *Mona*

Lisa is such a beautiful painting, it is similarly hard to tell why *Angry Birds* is a beautiful game. Theories of design and arts help to analyze aspects of the beauty after the fact of creation (and sometimes centuries beyond), but never fully capture the emotional aspects of getting involved with the aesthetic values of an artifact.

While this difficulty exists, in the entertainment game industry an extensive reviewing practice

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has come into being, in which games are judged by several quality criteria. Criteria concern for example graphics, gameplay, and audio. The eventual judgment is often if not always represented numerically, in the form of a percentage or a number ranging from one to five or one to ten. Such representations not only express the feeling a reviewer has about a game, it also facilitates comparisons between games. Although one should certainly be careful in making any firm statements, ratings suggest that games with high ratings are good games, often stated in the textual evaluation as very beautiful ones. If many reviewers agree on this, the achieved inter-subjectivity essentially suggests this is generally true. For entertainment games, a plethora of portals exist that review games in these manners. Well-known portals are *GameSpot*, *IGN*, and *The Edge Magazine*.

For educational games, such a reviewing practice does not exist. Yet, these types of games have often been blamed for being “ugly.” Most early educational games, preferably called “educational software” or “edutainment” by game designers, were considered poor games by the standards of the entertainment industry (Egenfeldt-Nielsen, 2007). In the past decennium we have witnessed a revival of the use of games for serious purposes (Harteveld, 2011), and one of the key ideas of this new movement concerns a closer approximation to the standards of the entertainment industry (see also Sawyer, 2002). Having the right educational content embedded in a game is not believed to be sufficient anymore. The games themselves should also be engaging and immersive, or simply fun.

Aspiring to achieve the quality of entertainment games is admirable, but educational game designers have limited resources, a narrow target group, and an unprofitable business model (if at all) at their disposal. With this in mind, some think that the solution should be sought in repurposing existing entertainment games for education (Van Eck, 2009). While in certain situations this could very well be a solution, in many if not most others a customized game is needed. Considering this problematic situation, the question should be raised to what extent the beauty of an educational game

really matters. The use, purpose, and setting of an educational game is quite different from that of an entertainment game. For educational games, a “beast” of a game might be just as effective as a “beauty.” In case beauty matters, it would be useful for educational game designers as well as for the educators selecting games to know what they need to focus on. Prioritization is needed, and thus it would be valuable to know whether certain aspects require more attention than others.

This is an urgent matter. While the attention for game-based education is still rising, and many applications are finding their way into schools and universities, it might turn out not to be sustainable. Creating a game is hard work and requires much investment. While new technologies address this issue by making it easier for users to create games, and profitable business models may arise in the educational market, game-based education will remain an intensive educational method in usage but especially in design. Nobody wants to create a “beast” of a game, but if creating a “beauty” is not feasible and not necessary, why pursue it?

In this chapter our purpose is to determine whether an educational game’s attractiveness is of importance, i.e. whether it contributes to the effectiveness of using games in education. Our research question concerned therefore: What are the effects of the attraction of educational games on the educational effectiveness? Since 2005, we have been using and evaluating a variety of digital games in higher education. By comparing game results, we are able to answer our research question and conclude whether game-based education requires beauties or if beasts are sufficient. Before we get to this, we will first explain what we mean by “beauty,” what games have been used and evaluated, and how we compared the games.

ATTRACTION DEFINED

To investigate the importance of creating a “beautiful” game in higher education, it should first of all be clear what aspects make a game potentially beautiful. As stressed before, it is quite difficult

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