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How to cite:

Iacovides, Ioanna; Aczel, James; Scanlon, Eileen and Woods, Will (2011). What do players have to say about informal learning through games? In: EARLI Conference 2011: Education for a Global Networked Society, 30 Aug - 3 Sep 2011, Exeter, UK.

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Version: Accepted Manuscript

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# What do players have to say about informal learning through games?

## Abstract

It has been suggested that digital games can be powerful learning environments that encourage active and critical learning, including participation within “affinity groups” and “semiotic domains” (Gee, 2004). However, there is still a need to provide further empirical evidence to substantiate these claims, especially if educators want to try to replicate people’s enthusiasm for games within a formal educational context. By addressing the question “How do players describe learning in the context of gaming?” this study seeks to further our understanding of how and what people learn informally through playing games by first examining the player perspective. A set of learning categories, based on a series of email interviews with a range of adult games players, is identified along with some themes to consider in relation to players’ views on learning within this context. The findings indicate the importance of considering more than just what occurs during play, because, for example, players often consult external resources for advice about what to do in the game world. It is also pertinent to note players’ ideas about value and transfer of learning across contexts. The research raises questions about the completeness and applicability of these learning categories, and about how these categories relate to motivations for playing games and engagement during play.

## Rationale

Research has suggested that digital games can be powerful learning environments since they encourage active and critical learning, including participation within “affinity groups” and “semiotic domains” (Gee, 2004). However, when it comes to designing games for educational purposes it can be difficult to combine learning with gaming (Howard-Jones, 2010). Further, in relation to people playing games for leisure purposes, Squire (2002) claims we know “very little about what they are learning playing these games (if anything)” (p. 4). It is apparent that the area would benefit from further empirical research examining how and what people learn from game-play. In addition, while there are existing frameworks that can be used to discuss various aspects of player involvement, such as the Digital Game Experience Model (DGEM; Calleja, 2007), these often fail to take the learning process explicitly into account. If educators want to try and replicate people’s enthusiasm for games within a formal educational context, then there is a need to understand how this enthusiasm occurs in everyday gaming practices and how these practices are able to support learning.

## Aims

As part of a larger project examining the relationship between engagement, motivation and informal learning through digital games, this paper reports on a study conducted to address the question “How do players describe learning in the context of gaming?” By furthering our understanding of how and what people learn informally from games from a player perspective, we can then go on to consider how far this learning relates to player motivation (why they play games) and player engagement (what they experience during play).

## Methodology

A series of email interviews was carried out with thirty adult participants (Age range: 22-58yrs; Mean age: 32.5yrs; 20 male, 10 female) recruited from the Open University campus, with an effort being made to recruit as wide a variety of players as possible. Hamilton and Bowers (2006) found there to be similar reliability and validity between email and face-to-face interviews, while the asynchronous nature of the medium allowed for greater flexibility in terms of how the interviews were carried out.

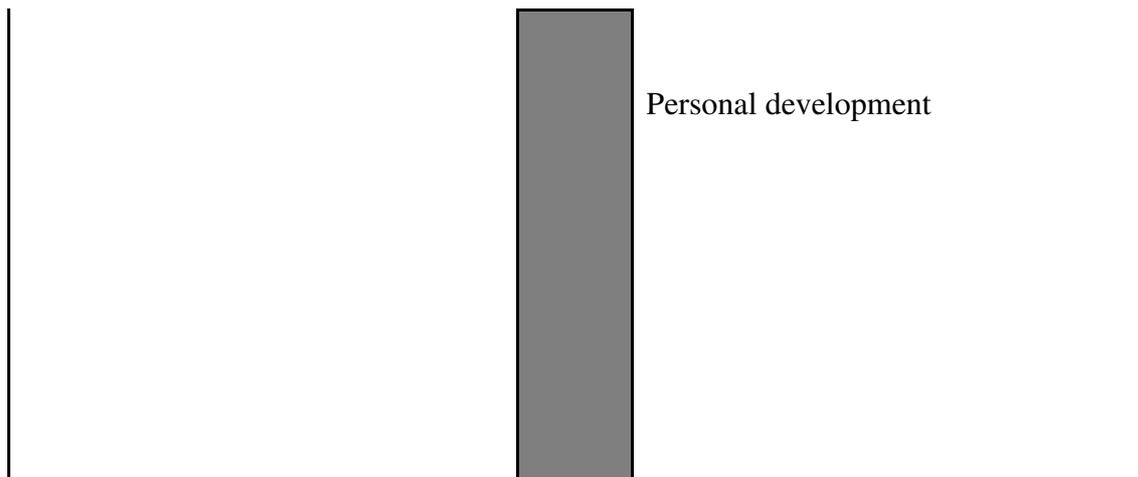
Because of a lack of existing frameworks that explicitly address informal learning within the context of game-play, an approach based on phenomenography (Richardson, 1999) was adopted, resulting in the development of a set of categories that can be used to describe how and what people think they learn from games. A thematic analysis was also carried out.

## Findings

Table 1 shows the categories developed. In terms of how people learn, there seem to be three main categories: through playing a game, through other players (e.g. observing other players or asking for advice) and through external resources (e.g. consulting a walkthrough or a manual). In terms of what people learn, there were another three main categories; learning about the game itself, learning different skills and contributing to personal development. The two sets of categories are meant to be used together, so for example, the following quote: “So, from a gaming perspective, Sonic Adventure taught me that I should believe in myself and in my dreams, and always keep on trying” (Katy, 22) can be classed as learning through play and as contributing to personal development.

Table 1: Learning categories

How people learn from games		What people learn from games
Through play		About the game
		- Controls/interface
Through other players		- Content
		- Strategies
Through external resources		- Behaviour of others
		Different skills
		- Psycho-motor
		- Cognitive
		- Meta-cognitive
		- Collaborative



A key theme identified by the research is the value attached by players to their learning experiences. For instance, Simon (36) says “More often than not, I learn about the game and its characters. I learn the structure of game worlds and, if it’s a car racing game, I might (roughly) learn the layout of the tracks. Nothing that comes to mind as being immediately useful!”. This suggests that while Simon has learnt something, he does not seem to consider it particularly worthwhile. This relates to a second theme: transfer, in that there was an indication, for some participants at least, that learning was only seen valuable if it could transfer outside the game world. The skills category also connects to this theme because, unlike learning specific game controls, this category is intended to encompass transferable skills, such as general hand-to-eye coordination.

## **Discussion**

The findings indicate that when identifying learning through games it is important to consider more than just what occurs during play. Players often consult external resources for advice about what to do in the game world, but also in order to find out about the latest games releases and to connect with a larger gaming community. Further, it seems players can sometimes learn things that contribute to how they approach their daily lives. It is also important to note players’ ideas about value and transfer within this context. However, while these findings do provide some evidence for Gee’s account (Gee, 2004), they are based on retrospective reports. As a result, further research is being carried in order to test how comprehensive these categories are and whether they will be useful for identifying learning that occurs in practice. The categories will also be used to supplement the DGEM, in order to build a fuller picture of how learning, motivation and engagement come together within an informal context.

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