

Types of Talk around Video Games in a Classroom Setting

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Abstract

The adventure game *Citizen Science* is a free, online, flash-based educational tool designed to support engagement and playful learning around science topics (Gaydos & Squire, 2012; Squire, Barnett, Grant & Higgenbotham, 2004). The game encourages players to take on the roles of both scientific researchers and environmental activists - practicing elements of scientific argumentation, collecting lake science data, conducting environmental exploration and discovery, and advocating to the virtual community on behalf of the lakes. As a game designed to reflect the real-world problems facing lakes and watersheds in Madison, Wisconsin and other temperate areas, the goal of the project is to understand how *Citizen Science* can serve as a “springboard” that inspires student interest in lake ecology content (Squire, 2004), and encourages players to connect in-game activity to real-world understanding and action (Gaydos, 2013).

Previous research on *Citizen Science* highlights the game’s capacity to support learning in classroom settings, and also discusses ways in which classroom environments can shape student experiences with the game and content (Gaydos, 2013). The following research focuses on interactions between educators and learners as an aspect of the learning experience when *Citizen Science* is integrated into a class curriculum.

Games, as both artifacts and activities, can be conceptualized in different ways. For example, games in conversation can be discussed in terms of their mechanics, dynamics, aesthetics (LeBlanc, 2006), narrative (Jenkins, 2004), or simply as physical tasks that players execute while sitting in front of a computer. With a deeper, more nuanced understanding of these different conceptualizations comes the potential for greater understanding of how game and classroom experiences interact, or influence each other. Our research seeks to elucidate that relationship

through the reconstruction of different interplaying conceptualizations that speakers hold as they negotiate conversation.

Ongoing data analysis is being conducted upon audio data collected from a seventh grade life science classroom in a rural Wisconsin middle school in which *Citizen Science* was used. Spoken interactions between teacher and students were transcribed using simplified Jeffersonian standards (Jefferson, 2004), and analyzed using analytic heuristics found in Conversation Analysis. Current project analysis and research involves the development and refinement of a classification scheme of different types of talk around video games in this instructional setting. Specifically, our interest lies in the conceptual foci of student questions and their subsequent answer or negotiation by the educator. At this stage of analysis and development, our framework distinguishes between the following types of talk:

- *In-Game Mechanics* - Addressing the game in terms of its mechanics - in terms of its elements as part of a dynamic system.
- *In-Game Narrative* - Addressing the game in terms of its narrative - its story.
- *Tools and Techniques* - Addressing the tools and techniques of problem-solving that are available outside of the game software itself (e.g. a whiteboard for questions, or a documentation sheet suggested by the teacher).
- *Content and Concepts* - Addressing content and concepts that are not embedded in the game itself.
- *Interface* - Addressing the game as a physical task consisting, for example, of ‘clicking’ or ‘moving a mouse’.

Further discussion of the project will include the introduction and development of the scheme of different types of talk, and a discussion of the issues that so far arose during our attempts to create and modify these classifications. Our line-by line analysis of transcribed audio data focuses on ethno-methods of communication (Gee, 2011; Rymes, 2009; Garfinkel 1967), or the ‘how’ of communication. Thus, we will also discuss qualitative micro-patterns that we have so far found in our data, specifically concerning linguistic features that correspond with different types of interaction, and interactional patterns that span across them.

Keywords: types of talk, video games in the classroom, student-teacher interaction

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