

Video games in context: An ethnographic study of situated meaning-making practices of Asian immigrant adolescents in New York City

Chia-Yuan Hung

Teachers College, Columbia University

610 W. 150th Street, Apt. 2d

ch406@columbia.edu

646-379-0762

ABSTRACT

Many studies of players have described how situated learning occurs in video games. However, the “situated” nature of video games is complicated because players exist not only as player-avatars in a virtual world, but also as a player-human in a physical setting. This paper is based on an ethnographic study of a group of Asian adolescents in New York City, who play video games in various settings, such as Internet cafés and at home. Being recent immigrants from China and English language learners, playing video games requires that they understand the action occurring in the game without necessarily having access to the language. The study looks at how the real-world conditions shape their meaning-making practices as situated within particular physical spaces and suggests that researchers need to look beyond the actions of the player-avatar and consider the actions of the player-human as well, because how they make sense of video games may be contingent upon the real-world conditions unfolding around them.

Author Keywords

meaning-making, learning, ethnography, player-focused

INTRODUCTION

In video game research, the word “situated” has often been used to describe the types of learning that takes place with players. [6, 7, 20, 21, 22] This learning theory was articulated in Lave and Wenger’s notion of communities of practice. [12] With this model, they argued that all activities are situated, and that individuals learn best when they are engaged in activities that are meaningful to the other community members. Moreover, learning is seen as an issue of identity and membership such that members are not only learning a skill or knowledge, but learning what it means to be a member of a particular community situated around a set of practices. Some video game scholars have used this notion of “situated learning” to describe how players become members of virtual communities such as massively-multiplayer games (MMOGs). Steinkuehler, for example, conducted a virtual ethnographic study of the

MMOG *Lineage II* and described the types of learning that took place in apprenticeships between expert and newcomers to the game. [20] She argued that their interaction allowed newcomers to be inducted into the community through active participation and meaningful engagement that was situated in the social practice of the MMOG.

However, “situated” takes on more complex meanings when it comes to video games. The player is situated as an avatar in a virtual world; but she is also situated as a human inhabiting a particular physical space, possibly surrounded by other people who may or may not be a part of the interaction. In addition, video games are becoming increasingly mobile. Not only are they portable, as with handheld devices such as the PlayStation Portable (PSP) or the Nintendo DS, but entire virtual worlds can be contained and carried around on a laptop, which can be connected in a multitude of settings: at homes, at schools, in Internet cafés, even on airplanes. As researchers, we must ask two questions: 1) Does the situated physical context shape the interaction and meaning-making practices that occur among players; and 2) if so, are methodologies such as virtual ethnographies, where the researcher never gets any direct, physical contact with the player, adequate in uncovering these practices?

This paper attempts to address these concerns by taking a sociological approach to studying players’ actions. Following the tenets of ethnomethodology and conversation analysis, “context” is defined as something that has to be maintained and constructed in an ongoing basis. [1, 2, 4, 5, 17, 18] Scholars in this tradition avoid taken-for-granted notions of context, and argue that individuals have to actively maintain what is the relevant frame of the situation throughout the course of their interaction. Like Lave and Wenger, they are interested in describing the *in situ* nature of social action. In addition, “meaning-making practices” refer to the ways that players make sense out of the video games in particular situated contexts. Consequently, instead of the researcher being in another setting observing the

Situated Play, Proceedings of DiGRA 2007 Conference

© 2007 Authors & Digital Games Research Association (DiGRA). Personal and educational classroom use of this paper is allowed, commercial use requires specific permission from the author.

player-avatar in a virtual world, this approach compels the researcher to take into account the social action that unfolds in the physical surrounding where the player-human is located, and to capture the action *as it happens*.

This paper is based on an ethnographic study of a group of Asian adolescents in New York City. These adolescents are recent immigrants from China and are English language learners currently enrolled in a public high school. This reason in selecting this specific group of players is twofold. In general, there is a scarcity of research on non-English speaking players playing video games in English. Given that playing video games is a global phenomenon, many players around the world must also face the similar challenge of playing a game that is in an unfamiliar language. Furthermore, these encounters can create “trouble” that can often reveal underlying assumptions and practices that are otherwise invisible. Creating trouble, such as Garfinkel’s “breaching experiments” or Suchman’s study of people trying to figure out how to use a photocopier, is a common approach used in ethnomethodological studies that allow researchers to describe assumptions that participants may be unaware of themselves.

For this study, I conducted participant observations in the various settings where they play video games, which included at homes and in Internet cafés, as well as in a video games research lab at researcher’s school. It describes in detail the interactions that unfold among players as they try to make sense of the action in the video game. In addition, instead of game-centered approaches where one game is selected and assigned to the participants to play, this study takes a player-centered approach that looks at whether players make connections and construct meanings *across* games.

Methodology

This study uses a multisite ethnographic research design to gather data from the various sites where the participants go to play video games. Erickson argued that interpretive methods and fieldwork research are most appropriate for studies that are interested in discovering the “meaning-perspectives” of actors in specific settings. [3]. This approach can reveal the details of social actions the moment they happen and how “people in the immediate setting consistently present to each other as environments for one another’s meaningful actions” (p. 121). By taking extensive field notes and collecting artifacts (e.g. game manuals, websites, guides) and evidence (e.g. audiotapes, videotapes), the researcher can build a richer portrait of actions as they unfold. Since new technologies co-exist in different spaces, researchers have to find field sites where the most relevant actions occur.

Studying technologies such as video games, virtual worlds or other digital spaces poses new methodological challenges for researchers. Turkle, who studied people’s interactions involving the Internet and video games, insisted on using face-to-face encounters when observing participants

because it reveals the complex relationships different people have between their online and offline expressions of identity. [24] She only reported data from participants she met in real life instead of through a virtual persona because she questioned the integrity of online interviews as a source of data. Thus, she went into different sites such as programming classes and computer labs in order to examine interactions people using computer technology in physical settings.

Marcus pointed out that “[m]ulti-sited research is designed around chains, paths, threads, conjunctions, or juxtapositions of locations in which the ethnographer establishes some form of literal, physical presence, with an explicit, posited logic of association or connection among sites...” (p. 105). [15] Single-site studies, he argued, tend to rely on macro-constructions of the larger social order to explain local interactions. Multi-site studies are more interested in the “circulation of cultural meanings, objects, and identities in diffuse time-space” (p. 96) and destabilize conventional distinctions between “local” and “global” explanations.

Depending on the goals of the study, there are many leads researchers can follow, including people and metaphors. Following people allows the researcher to observe people in different locations or situations to describe more complex portraits and interactional patterns in their relationships. This is useful for researchers who have a strategic single-site where participants interact but wish to study other sites in order to see how their “offstage” knowledge unfolds in other spaces. Following metaphors is useful “when the thing traced is within the realm of discourse and modes of thought” (p. 108). Connecting discourses and registers across different sites reveals the dialogic nature of interpreting signs and symbols. Marcus argued that “multi-site research is...especially potent for suturing locations of cultural production that had not been obviously connected and, consequently, for creating empirically argued new envisionings of social landscapes” (p. 109). [15].

Green pointed out that, since technological tools are embedded in existing social worlds and not simply tools that are used for access into digital spaces, multisite ethnographies can illustrate how interactions with technologies are “process[es] of making connections between programmed and nonprogrammed spaces in specific locales, and power-laden social, cultural, and economic relationships” (p. 410-411). [9] Her study of virtual reality technologies took her to multiple cities and settings such as technology conventions, arcades, “edutainment” centers. In her article, she described three possible trajectories to follow: stories, people, and objects. Following stories allow the researcher to study the local stories that people tell one another and the discourses that cycle through people’s interactions and understanding about technologies. For example, in her study, the “cyberpunk” discourse as articulated in science-fiction novels and movies was influential in shaping how people used the

technology. Following people reveals the connections people make with one another as they interact with these tools. These include not just the people in the immediate surrounding, but others whose insights we build on in our own encounters with technology. These may be journalists, cultural critics, fans, graphic designers, commentators, etc. Following objects takes the researcher across different spaces where action take place so that the connections that people make can be viewed in a broader context.

These various approaches of studying interaction allow the researcher to take into account the complex, connected nature of society today. However, they pose obvious logistical problems that researchers must face. Lam used the multisite ethnographic method to show how four Asian adolescents used the Internet to support their English language development and identity formation as immigrants in the United States. [13] In particular, she was interested in how these adolescents used various resources and interactions on the Internet to construct their everyday identities. These interactions allowed them to be part of communities where they can connect with others who share similar experiences of schooling, adolescence, and immigration. Her sites included spaces on the Internet such as web pages, chat rooms and online fan-based communities as well as physical locations such as classrooms, computer labs and after school clubs. Thus, she was able to observe how the interactions her participants engaged in on the Internet influenced their identities in real, face-to-face encounters.

In my research, I am primarily interested in describing the locally-constructed meaning-making practices of Asian adolescents playing video games. Studying meaning-making as “situated action” is complicated by the fact that games are situated in more than one context. Previous studies tend to focus on the player-avatar by describing learning that takes place by players as virtual characters. In my study, I assume that all contexts can be potentially relevant in understanding their meaning-making practices, and thus, no context should not be dismissed as irrelevant *a priori*. This means that the researcher has to be in the same physical setting as the player so that he/she can observe the meaning-making practices that occurs across these different contexts as they happen.

Data collection

I used audio-recording to capture the events that occurred during a game session, including the conversations participants may have before, during, or after the game. In addition, whenever possible, I videotaped their onscreen actions with a VCR. To properly analyze how these adolescents make sense of video games, I needed to capture interactions that occurred on “both sides of the game”; in other words, the interactions between participants-as-players and the interactions between participants-as-virtual-characters were both relevant in the analysis. I took fieldnotes to capture interactions that may not visible

through an analysis of language alone or were not easily picked up by recording equipment. Following the tenets of grounded theory, the fieldnotes were coded inductively in order to discover the types of interactions that emerged from the observations. [10] I also adapted Suchman’s approach of avoiding pre-determined coding schemes that tend to presuppose we know what we would discover. [23]

I used conversation analysis, developed by Harvey Sacks to study local constructions of meaning. Conversation analysis, which has been applied in studies of interactions in the workplace, classrooms, interviews, radio broadcasts, etc., allows the researcher to show how meaning is constructed jointly by participants in the interaction. [8, 9, 17, 25]. This analysis revealed how the relevant context (and the meanings it shapes) is a result of the way participants use talk-in-interaction to constantly frame and reframe how a situation should be understood.

Preliminary findings

While many participants took part in the study, there were three boys - Alex, aged 15; Jay, aged 16, and Kevin, aged 18 – who became the focal group because they were most regularly present. This discussion will focus primarily on their interactions. All the participants were Cantonese-speakers, attend the same public high school and are enrolled in its English as a Second Language (ESL) program. They also play a variety of games in different settings, such as at home or at Internet cafés. It is important to note that the types of games they play are necessarily restricted to the specific location, the availability and configuration of equipment, and the presence (or absence) of others. Some of these constraints had to do with the space while others had to do with the locally produced properties of interactions between the participants.

Learning how to play

I allowed the participants to pick the types of games they wished to play, ranging from games that were restricted to one-player, to those that allowed up to four players. The three focal participants settled on two games, Super Smash Brothers Melee (SSBM) and Naruto: Clash of Ninjas 2 (NCN2). Both of these games are fighting games where the purpose is for the players to fight one another using different characters. Both these games draw on prior “texts” for its characters. SSBM included playable characters from many games in the Nintendo universe, such as Mario (Super Mario Brothers), Link (Legend of Zelda) and Pikachu (Pokemon) while NCN2 used characters from the Japanese manga, Naruto, upon which the game is based. This meant that the participants who were familiar with the characters could build on some prior knowledge about the characters.

They were also building on their expertise across games. Both SSBM and NCN2 allow the players to unlock new, playable characters after a certain amount of play time although they go about this differently. In SSBM, the game

automatically unlocks a character after a certain amount of time. Players cannot find out how close they are to unlocking a character, nor can they pick the character to unlock. In NCN2 however, the game calculates the number of points they accumulate and converts them to “coins”. This allows the players to go to the “Shop” on the main screen and use the coins to unlock not only characters, but other abilities. The participants did not discover this during the observations. Instead, they applied the structure of SSBM, which was the game they played prior to NCN2, and kept waiting for it to unlock new characters. They tried exploring other parts of the game, but they never consulted the manual or realized that the “Shop” allowed them to unlock new characters.

The way they applied the design of another game (SSBM) onto another one (NCN2) is reminiscent of Garfinkel’s breaching experiment that uncovered people’s “documentary method of interpretation”. [4] Suchman used this to explain expert systems, where human users pretended that the machine operated on the same “logic” even though it often functioned under different assumptions. [23] Likewise, with these participants, they were attributing a previous game’s design logic, and assuming that both games would follow the same structure. This suggests that prior experience can be both beneficial and restricting. In this case, it restricted the players’ conception of the game when they tried to apply the rules of one game to another. It is interesting to note that what was “meaningful” to them was not what the game designers had in mind, and even though things were not happening according to their expectations, they were actively assigning meaning to outcomes with a set of inaccurate assumptions that still made sense to them.

Rules of Engagement

On one occasion, the focal participants insisted that I join their four-player game. It was the first time they had asked me, and it occurred to me, looking through my field notes, that they almost never play three-player games even though the games allowed for that configuration. More importantly, they deliberately avoid three-player games, constructing either two- or four-player games. Whenever one participant had to break away from a four-player game, another player would inevitably split off. Sometimes this meant that two players would play while another watch. They may even take turns so that the loser lets the observer play in the next turn, but they would never play a three-player game.

This pattern held within games as well. In a four-player fighting game, the players typically “pair off” into twos. When one character is defeated, the victor in one pair is expected to standby until one in the other pair is also defeated before joining it. If this rule is violated, the players in the other pair would complain, as can be seen in the following exchange:

1 J: 唯, 又 關 你 咪嘢事 啊……………

Hey, again relate you what business question marker
(Hey, what business is this of yours again?)

(0.8s)

2 A: 打 完 有 關 嘢 做 啊?

Play done have vagina thing do question marker
(What the fuck am I supposed to do when I’m done
(with my opponent)?)

Here, Jason is complaining when Alex intervenes in his fight with Kevin. Even though Alex argues that he doesn’t like to wait when he’s done, he agrees to do so in later turns. It is interesting to note that the point of the game, as dictated by the rules, is to win. There is no second place in this game, so it seems that it would be to the interest of the victor to win by whatever means. And yet, these protocols are in place and are locally constructed by the players, who mutually decide “what it means to win”.

Furthermore, while this “no ganging up” rule holds up consistently in one type of game (four-players fighting each other), it is consistently broken in another type (two against two). NCN2 allows the players to form teams of two so that two players would fight another two. At the bottom of each character are arrows that point to the opponent you are facing, and you are able to switch opponents by clicking a button. Thus, it is easy to see from the video data whenever a player has switched opponents. I observed that the teams would consistently try to gang up on another because that is the fastest way to win. Interestingly, this often leads the other team to break that formation and unbalance the structure, suggesting that players plan moves and countermoves simultaneously.

Framing the game

It may seem obvious to a casual observer that, when a group of players get together at a console, they are “playing a video game”. What is less clear, however, is that what *counts* as “playing a video game” is something that needs to be negotiated between the players, through conversation and in an ongoing basis. In other words, there are forms of action that may be perfectly legitimate within the rules of the game, but not within the players’ co-constructed context.

For example, on one occasion, I observed Alex and Kevin playing NCN2, where they had to fight against each other. Alex was complaining that NCN2 was not a strategic game, and that the other player can win without really being a good player. Kevin was trying to convince him that the game can be strategic if played a certain way. (Neither of them fully explain what “strategic” means to one another). Throughout this negotiation, Kevin had to maintain the “game-ness” of their interaction by trying to win in such a way that can satisfy Alex without deliberately losing to him. In other words, it has to be a competitive game in the right

way to them, and this “right way” is never fully articulated but understood within their interaction.

These types of conversations are not unique to these two participants, nor to this game. Even when playing as a group in SSMB, game rules were routinely refined or discarded, depending on what type of game they were playing. Thus, it suggests that “what is *the* game” that people play may vary across players and contexts; and it follows that what is meaningful must also be different.

Discussion

While these findings are only preliminary, it suggests much more complexity in interactions between players and games. I observed that there is much more to “playing a video game” than simply playing a video game. In these sessions, the participants were constructing their own rules and protocols on top of, and often in contradiction to, the rules that the game designers laid out. For educators looking to design games for learning, these observations compels them to consider the locally constructed, contingent factors that are always present and how these factors may deride the learning that the designers attempt to lay out in the form of rules and structures. In other words, learning may be a ubiquitous phenomenon even if it is not the same learning that others have planned. The data also points out the importance of analyzing the conversations occurring offline between players. For example, in Internet cafés, players may sit next to one another, each with their own computer and each with access to the virtual world. However, the conversations become part of the context-renewing mechanism that communicates to the players the types of meaning-making practices that are relevant to the context.

“Ways with games”

In recent years, educators have looked to video games as a teaching tool and have looked for ways to design “serious games” or “educational games” that can be implemented in schools. Much of this movement comes out of New Literacy Studies, which was a movement in the 1970s and 1980s that had started to unpack the monolithic notion of “literacy” as an ideological tool. Prior to that period, scholars have argued that oral cultures were less sophisticated than literate ones because literacy – when defined narrowly as the ability to read and write – was believed to have cognitive superiority over orality. They argued that literacy restructured thinking and made it possible for the expression of individualism, abstract concepts, logic, and scientific thinking. However, a series of ethnographic studies challenged the “literacy myth” by focusing more on the context in which literacy was used [13, 19]. They showed that people have different ways of meaning depending on the types of social interactions they have, and that there are forms of literacy that are more privileged by society, especially institutions such as schools, than others. One of the pioneering studies was described in Heath’s “Ways with words”, a comparative ethnographic study of Trackton, which was a Black working-class

community, Roadville, a White working-class community, and the townspeople, which was racially mixed and represented the mainstream part of society that held power in schools. [12] In her study, she described how the families in these different communities had different ways of using language and texts, and that these differences resulted in the schoolchildren having different levels of readiness for participation in the mainstream schools. Embracing this study, many scholars in New Literacy Studies have argued that educators need to pay attention to the other kinds of literacies that take place outside the school context. This has given rise to more inclusive definitions of literacies as social practices that occur in various contexts. They also suggested that the situated learning that takes place in video games allows more students to participate and learn through different trajectories. [6, 7]

Heath’s study is relevant to this discussion in several ways. If we agree, as Heath suggested, that people have different “ways with words”, perhaps researchers should also consider the likelihood that people may have different “ways with games”. In other words, before we can truly think about video games as educational tools for schools, we should consider whether there are different gaming practices among different groups of players, and whether these differences shape their meaning-making practices. Without this understanding, we may end up repeating the same mistakes that scholars in the New Literacy Studies tradition have tried to correct, and overlook the importance of understanding how these social practices unfold in specific contexts. The preliminary analysis suggests that video games are assigned meanings through players’ ongoing constructions that shift continuously. Heath’s study also suggests that we should not assume people carry with them identical assumptions or meaning-making practices.

The academic study of video games is still in its infancy, and there remains many gaming practices, genres, and players who have not been adequately researched. Whether we believe that video games can be designed for schools, or whether we are simply interested in the learning processes that take place in video games, we must try to explore the multiplicity and complexity inherent in the gaming community.

REFERENCES

1. Cicourel, A. V. *Method and measurement in sociology*. New York: The Free Press of Glencoe, 1964.
2. Cicourel, A. V. *Cognitive sociology*. New York: The Free Press of Glencoe, 1974.
3. Erickson, F. Qualitative methods in research on teaching. in M. C. Wittrock (Ed.), *Handbook of research on teaching* (3rd ed., pp. 119-161). New York: Macmillan. 1986.
4. Garfinkel, H., & Rawls, A. W. *Ethnomethodology's program: Working out Durkheim's aphorism*. Lanham, MD.: Rowman & Littlefield Publishers. 2002.

5. Garfinkel, H. and Sacks, H. On formal structures of practical actions. in McKinney, J.C. and Tiryakian, E.A. eds. *Theoretical sociology: Perspectives and developments*, Appleton-Century-Crofts, New York, 1970, 337-366.
6. Gee, J.P. *What video games have to teach us about learning and literacy*. Palgrave Macmillan, New York, 2003.
7. Gee, J.P. *Situated language and learning: A critique of traditional schooling*. Routledge, New York, 2004.
8. Goodwin, C. and Goodwin, M.H. Seeing as a situated activity: Formulating planes. in Engestrom, Y. and Middleton, D. eds. *Cognition and communication at work*, Cambridge University Press, Cambridge, 1996, pp. 61-95.
9. Goodwin, C. and Heritage, J. Conversation analysis. *Annual Review of Anthropology*, 19. pp. 283-307.
10. Glaser, B.G. and Strauss, A.L. *The discovery of grounded theory: Strategies for qualitative research*. Aldine Publishing Company, Chicago, 1967.
11. Green, N. Disrupting the field: Virtual reality technologies and "multisited" ethnographic methods. *American Behavioral Scientist*, 43 (3). 409-421.
12. Heath, S.B. *Ways with words: Language, life, and work in communities and classrooms*. Cambridge University Press, Cambridge, 1983.
13. Lam, W.S.E. L2 literacy and the design of the self: A case study of a teenager writing on the Internet. *TESOL Quarterly*, 34 (3). 457-482.
14. Lave, J. and Wenger, E. *Situated learning: Legitimate peripheral participation*. Cambridge University Press, Cambridge, 1991.
15. Marcus, G.E. Ethnography in/of the world system: The emergence of multi-sited ethnography. *Annual Review of Anthropology*, 24. 95-177.
16. Sacks, H. Notes on methodology. in Atkinson, J.M. and Heritage, J. eds. *Structures of social action: Studies in conversation analysis*, Cambridge University Press, Cambridge, 1984, 21-27.
17. Sacks, H., Schegloff, E.A. and Jefferson, G. A simplest systematics for the organization of turn-taking for conversation. *Language*, 50(4). 696-735.
18. Schegloff, E.A. Parties and talking together: Two ways in which numbers are significant for talk-in-interaction. in Ten Have, P. and Psathas, G. eds. *Situated order: Studies in the social organization of talk and embodied activities*, International Institute for Ethnomethodology and Conversation Analysis, Washington, D.C., 1995, 31-42.
19. Scollon, R. and Scollon, S.B.K. *Narrative, literacy, and face in interethnic communication*. Ablex Publishing, Norwood, 1981.
20. Steinkuehler, C. Learning in massively multiplayer online games. in Kafai, Y.B., Sandoval, W.A., Enyedy, N., Nixon, A.S. and Herrera, F. eds. *Proceedings of the Sixth International Conference of the Learning Sciences*, Erlbaum, Mahwah, 2004, 521-528.
21. Steinkuehler, C. Massively multiplayer online videogaming as participation in a Discourse. *Mind, Culture & Activity*, 13 (1). 38-52.
22. Steinkuehler, C. and Williams, D. Where everybody knows your (screen) name: Online games as "third places." *Journal of Computer-Mediated Communication*, 11 (4).
23. Suchman, L.A. *Plans and situated actions: The problem of human-machine communication*. Cambridge University Press, Cambridge, 1987.
24. Turkle, S. *Life on the screen: Identity in the age of the Internet*. Simon and Schuster, New York, 1995.
25. Wooffitt, R. *Conversation analysis and discourse analysis: A comparative and critical introduction*. Sage Publications, Thousand Oaks, 2005.