

Title of Project:

Adolescent English language learners' second language literacy engagement in *World of Warcraft* (WoW)

Researcher:

Zhuo Li
University of Florida
zhuoli@ufl.edu



Zhuo Li

Research Supervisor:

Dr. Maria Coady

Research Summary:

As noted by researchers (Funk, Hagen, & Schimming, 1999; Squire, 2006; Williams, 2003), many youth today spend more time playing in digital worlds than reading, or watching TV or films. Though many people, parents and teachers, still take video games as mere entertainment, “gaming culture” (Sanford & Madill, 2007) and “game literacy” (Gee, 2007) have been proposed to view gaming as a positive and potential tool in literacy development. With the notion of literacy as reading and writing skills being expanded to multiliteracies (New London Group, 1996) and multimodal literacy (Kress, 2003), studies on gaming in the field of education have been increasing in recent years (e.g., Compton-Lilly, 2007; Dubbels, 2009; Ferdig, 2007; Squire, 2005; Zhao & Lai, 2009). However, most of the studies are conducted with native English speakers and deal with the features in games that could facilitate learning. What remains to be explored is what adolescent English language learners’ (ELLs’) online gaming experience is like. To fill this gap, this qualitative study sought to understand how adolescent ELLs were engaged in second language (L2) literacy practices through a popular massively multiplayer online role playing game (MMORPG), *World of Warcraft* (WoW). This study triangulated multiple data sources, including interviews, observations, and artifacts. The participants were four Chinese adolescents who had lived in the U.S. for between four to nine years. Through an ethnographic multiple case study approach, this study presents a “rich, ‘thick’ description” (Merriam, 1998, p. 29) of what L2 literacy practices occur in online games.

Pivotal to the findings is the need to stress the definition of “literacy” in the study, which suggests effective functioning in situated social practices through meaning making across various modalities (texts, images, symbols, numerals, sound, movement and so forth). This study differentiates among gaming activities, literacy activities, and literacy practices. “Gaming activities” are the activities directly observed in the participants’ game play process. “Literacy activities” suggest “observable units of behavior” (Barton & Hamilton, 2000, p. 7) where literacy plays a role. “Literacy practices” refer to an abstract way of “utilising literacy” (Barton & Hamilton, 2000, p. 8).

Inspired by Guthrie and his colleagues’ engagement model of reading development (Guthrie, 2001), I draw a visual representation below to demonstrate the participants’ literacy engagement in *WoW* as a dynamic system. The diagram on the left of the figure shows the

relationship among literacy practices, literacy activities, and gaming activities. All literacy practices are embedded in literacy activities, which are derived from gaming activities. In other words, gaming activities as the most observable activities in gaming provide opportunities where the literacy is utilized. To follow the arrow around literacy practices, the four aspects of literacy practices including socializing, information seeking, strategizing, and problem solving are depicted on the right. Sense of engagement occupies a central location with the four literacy practices around it. This means the four literacy practices that occur concomitantly foster the participants' sense of engagement, which involves the issues of reward, immersion, and immediacy. The sense of engagement reflects the participants' "enthusiasm, liking and enjoyment" (Guthrie, 2004) in game play. It is noted that Guthrie's framework for understanding literacy engagement derives from research in the classroom context and using print literacy. In this study, the participants were involved in multimodal meaning-making processes. Moreover, all the participants were immersed in a scaffolded, interactive, and collaborative learning environment, where English is the second language. Thus, the multimodal environment is prominent in the GLE model generated in my study.

The participants were engaged in a complex process which involved all the four literacy practices not any single literacy practice in the game process. Only in this way, could their sense of engagement be stimulated through being completely immersed in the gaming environment, being rewarded upon accomplishments, and being caught by immediacy in gaming.

While playing *WoW*, the English language, as a second language, was necessary for the participants to complete the task-based activities. In terms of language use, reading and writing were the main language practices in which the participants were involved. Furthermore, reading in the game is not confined to reading words. Reading is multimodal and intertwined with words, symbols, images, numbers, colors, and

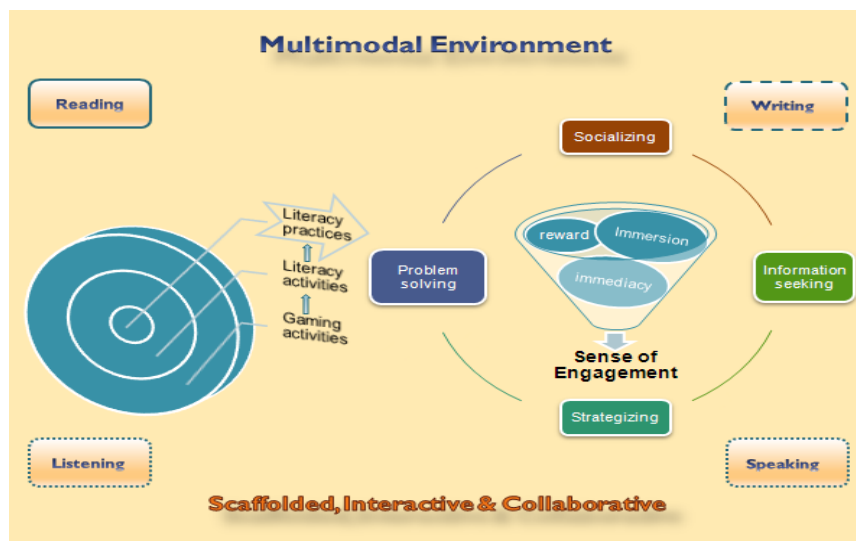


Figure 1. Literacy engagement in *WoW*.

Note: The variety of the frame lines (from solid lines to dashed lines) of the four components (reading, listening, writing, and speaking) indicates the varied degrees of occurrence of the four language practices. Reading was most often observed language practice in the gaming process. Writing occurred less than reading but more than listening and speaking.

occasionally sounds, all of which shaped a rhetorical context for the participants. Though writing was not as indispensable as reading in their *WoW* play, informal writing did occur in all the participants' game play process, though the frequency varied. The experienced player was most active in using informal and specialized game language to chat with other friends. Listening and speaking were optional literacy practices, which happened infrequently. Some simple instructions could be heard as long as the participants turned the volume on when they played the game. Of the four participants, only once did Mark use voice chat with other players once, through which he talked with others in an interactive way. The multimodal environment in *WoW* offered the participants a variety of literacy options that they could choose to effectively function in the game world.

To summarize, exploring the literacy practices that the participants were engaged in reveals the nature of the literacy engagement. A bottom-up perspective on gaming activities, literacy activities, and literacy practices provides the lens through which the nature of the literacy engagement can be viewed in a dynamic way. In *WoW*, literacy engagement occurs when a player's excitement and enthusiasm are aroused by the joint functioning of reward, immersion, and immediacy in a multimodal gaming environment replete with scaffolding, interaction and collaboration. The player is involved in a dynamic process of socializing, information seeking, strategizing, and problem solving simultaneously within and around the game. To the participants and others who learn English as their second language, the exposure to the English language is increased owing to the fact that reading and writing are incorporated into the gaming process while listening and speaking tend to be optional practices.

Given that ESL students' engagement in video games outside of school has received scant research attention, this study attempts to inform teachers, parents, and curriculum designers of the digital discontinuity of the students' literacies in and outside of school. First, this study adds to the knowledge of ELLs' out-of-school literacy. Since the study attempts to understand how adolescent ELLs are engaged in online gaming, it expands our knowledge about ELLs' out-of-school literacy practices, especially their new literacies. Second, this study contributes to the existing literature about students' gaming experience. The existing analysis on the potential of video games in learning, undoubtedly, serves as the theoretical foundation for the study, and in turn, the study results about ELLs' L2 literacy engagement in online gaming widen our view of how video games can be applied to productive learning. Furthermore, this study has significant implications for parents, teachers, curriculum developers, and game designers. By examining ELLs' "alternative literacies" (Sanford & Madill, 2007), this study offers hope to parents and teachers, who may want to reach adolescents to teach them.

References

- Alberti, J. (2008). The game of reading and writing: How video games reframe our understanding of literacy. *Computers and Composition, 25*, 258-269.
- Ang, C. S., Zaphiris, P., & Wilson, S. (2005). *Social interaction in game communities and second language learning*. Paper presented at the 19th British HCI Group Annual Conference, Edinburg, UK.
- Ariza, E. N. W., Morales-Jones, C. A., Yahya, N., & Zainuddin, H. (2006). *Why TESOL? Theories & issues in teaching English to speakers of other languages in K-12 classrooms* (3rd ed.). Dubuque, IA: Kendall/Hunt Publishing Company.
- Au, K. H. (2001). Culturally responsive instruction as a dimension of new literacies. *Reading Online, 5*(1).
- Au, K. H. (2005). Constructivist approaches, phonics, and the literacy learning of students of diverse backgrounds. In Z. Fang (Ed.), *Literacy teaching and learning: Current issues and trends*. Columbus, OH: Merrill Prentice Hall.
- Aufderheide, P. (1993). *Media literacy: A report of the national leadership conference on media literacy*. Queenstown, MD: Aspen Institute.
- Baker, L. (1999). Opportunities at home and in the community that foster reading engagement. In J. T. Guthrie & D. Alvermann (Eds.), *Engagement in reading: Progress, practices, and policy implications* (pp. 105-133). New York, NY: Teachers College Press.
- Baker, L., Dreher, M. J., & Guthrie, J. T. (2000). *Engaging young readers: promoting achievement and motivation*. New York, NY: Guilford Press.
- Baker, L., Dreher, M. J., & Guthrie, J. T. (2000). Why teachers should promote reading engagement. In L. Baker, M. J. Dreher & J. T. Guthrie (Eds.), *Engaging young readers: Promoting achievement and motivation* (pp. 209-237). New York, NY: The Guilford Press.
- Baker, L. (2005). The role of parents in motivating struggling readers. In Z. Fang (Ed.), *Literacy teaching and learning: Current issues and trends*. Columbus, OH: Merrill Prentice Hall.
- Bangert-Drowns, R. L., & Pyke, C. (2001). A taxonomy of student engagement with educational software: An exploration of literate thinking with electronic text. *Journal of Educational Computing Research, 24*(3), 213-234.
- Barrett, H. C. (2007). Researching electronic portfolios and learner engagement: The REFLECT initiative. *International Reading Association, 50*(6), 436-449.

- Barton, D., & Hamilton, M. (1998). *Local literacies: Reading and writing in one community*. New York, NY: Routledge.
- Barton, D., & Hamilton, M. (2000). Literacy practices. In D. Barton, M. Hamilton, & Roz Ivanič (Eds.), *Situated literacies: Reading and writing in context* (pp. 7-15). New York, NY: McGraw-Hill.
- Beavis, C. (2002). Reading, writing and role-playing computer games. In I. Snyder (Ed.), *Silicon literacies: Communication, innovation and education in the electronic age* (pp. 47-61). London, England: Routledge.
- Beavis, C. (2002). *RTS and RPGs: New literacies and multiplayer computer games*. Paper presented at the Annual Meeting of the Australian Association for Research in Education, Queensland, Australia.
- Berthoff, A. E. (1987). Foreword. In P. Freire & D. Macedo (Eds.), *Literacy: Reading the word and the world* (pp. xi-xxiii). South Hadley, MA: Bergen & Garvey.
- Braun, L. W. (2007). *Teens, technology and literacy; or, why bad grammar isn't always bad*. Westport, CT: Libraries Unlimited.
- Bridgeland, J. M., DiIulio, J. J., Jr., & Morison, K. B. (2006). *The silent epidemic: Perspectives of high school dropouts*. Washington, DC: Civic Enterprises.
- Brignall, T. W., & Valey, T. L. V. (2007). *An online community as a new tribalism: The World of Warcraft. The 40th Hawaii International Conference on System Sciences (HICSS'07)*, Hawaii. Retrieved from http://ieeexplore.ieee.org/xpls/abs_all.jsp?arnumber=4076738&tag=1
- Broberg, M. R. (2004). *The SIMs meet ESL: Incorporating authentic computer simulation games into the language classroom*. Iowa State University, Ames, Iowa.
- Bruckman, A. (1998). Community support for constructionist learning. *Computer Supported Cooperative Work: The Journal of Collaborative Computing*, 7(1-2), 47-86.
- Bryant, T. (2006). *Using World of Warcraft and other MMORPGs to foster a targeted, social and cooperative approach toward language learning*. Retrieved March 19, 2009, from <http://www.academiccommons.org/commons/essay/bryant-MMORPGs-for-SLA>
- Buckingham, D. (2007). *Beyond technology: Children's learning in the age of digital culture*. Oxford, England: Blackwell Publishing.
- Burst survey: Going online "essential" for teens. (2006, June 12). *MarketingVOX: The Voice of Online Marketing*.
- Burn, A. (2006). Reworking the text: Online Fandom. In D. Carr, D. Buckingham, A. Burn & G.

- Schott (Eds.), *Computer games: Text, narrative and play*. Malden, MA: Polity Press.
- Carr, D. (2006). Games and narrative. In D. Carr, D. Buckingham, A. Burn & G. Schott (Eds.), *Computer games: Text, narrative and play*. Malden, MA: Polity Press.
- Carr, M. S. (2002). *Inquiring minds: Learning and literacy in early adolescence. Creating communities of learning & excellence*. Portland, OR: Northwest Regional Educational Laboratory.
- Cicoure, A. V., & Mehan, H. (1984). Universal development, stratifying practices and status attainment. In R. V. Robinson (Ed.), *Research in social stratification and mobility* (pp. 3-27). Greenwich, CT: JAI Press.
- Cluck, M., & Hess, D. (2003). *Improving students motivation through the use of the multiple intelligences*. Unpublished Thesis, Saint Xavier University & SkyLight, Chicago, Illinois.
- Coady, M. (2009). "Solamente libros importantes": Literacy practices and ideologies of migrant farmworking families in north central Florida. In G. Li (Ed.), *Multicultural families, home literacies and mainstream schooling*. Charlotte, NC: Information Age Publishing.
- Colby, R. S., & Colby, R. (2008). A pedagogy of play: Integrating computer games into the writing classroom. *Computers and Composition*, 25, 300-312.
- Comber, B., & Cormack, P. (2005). Looking beyond "skills" and "processes": Literacy as social and cultural practices in classrooms. In Z. Fang (Ed.), *Literacy teaching and learning: Current issues and trends* (pp. 3-10). Columbus, OH: Merrill Prentice Hall.
- Compton-Lilly, C. (2007). What can video games teach us about teaching reading? *Reading Teacher*, 60(8), 718-727.
- Cook-Gumperz, J. (2006). Literacy and schooling: An unchanging equation? In J. Cook-Gumperz (Ed.), *The social construction of literacy* (2nd ed.) (pp. 19-49). Cambridge, UK: Cambridge University Press.
- Craig, K. (2006). *Voice chat comes to online games*. Retrieved May 12, 2009, from <http://www.wired.com/gaming/gamingreviews/news/2006/08/71540>
- Creswell, J. W. (2007). *Qualitative inquiry & research design: Choosing among five approaches* (2nd ed.). Thousand Oaks, CA: Sage.
- Crotty, M. (2004). *The foundations of social research: Meaning and perspective in the research process*. Thousand Oaks, CA: Sage.
- Cruz, J. Q. (2007). Video games and the ESL classroom. *The Internet TESL Journal*, XIII(3).

- Csikszentmihalyi, M. (1996). *Creativity: Flow and the psychology of discovery and invention*. New York, NY: HarperCollins.
- Cummins, J. (1981). The role of primary language development in promoting educational success for language minority students. In California State Department of Education (Ed.), *Schooling and language minority students: A theoretical framework* (pp. 3-49). Los Angeles: Dissemination and Assessment Center, California State University.
- Dannecker, A., Richter, S., Lechner, U., Drebner, N., Fabisch, S., & Ilsemann, A. (2008). *Towards World of Warcraft as an experiment platform for teams*. Paper presented at the Americas Conference on Information Systems (AMCIS) 2008, Toronto, Canada
- de Aguilera, M., & Mendiz, A. (2003). Video games and education: (education in the face of a "parallel school"). *ACM Computers in Entertainment, 1*.
- deHaan, J. (2003). *Learning language through video games: A theoretical framework, an evaluation of game genres and questions for future research*. Retrieved April 16, 2008, from <http://jobfunctions.bnet.com/whitepaper.aspx?docid=127390>
- deHaan, J. W. (2005). Acquisition of Japanese as a foreign language through a baseball video game. *Foreign Language Annals, 38*(2), 278-282.
- Delwiche, A. (2006). Massively multiplayer online games (MMOs) in the new media classroom. *Journal of Educational Technology and Society, 93*(3).
- Dewalt, K. M., & Dewalt, B. R. (2002). *Participant observation: A guide for fieldworkers*. New York, NY: Altamira Press.
- Dewey, J. (1910). *How we think*. Boston, MA: Heath.
- Dewey, J. (1929). *The quest for certainty*. New York, NY: Minton, Balch.
- Dewey, J. (1938). *Logic: The theory of inquiry*. New York, NY: Holt.
- Dodge, T., Barab, S., Stuckey, B., Warren, S., Heiselt, C., & Stein, R. (2008). Children's sense of self: Learning and meaning in the digital age. *Journal of Interactive Learning Research, 19*(2), 225-249.
- Dubbels, B. (2009). Video games, reading, and transmedial comprehension. In R. E. Ferdig (Ed.), *Handbook of research on effective electronic gaming in education*. Hershey, PA: Information Science Reference.
- Ducheneaut, N., Yee, N., Nickell, E., & Moore, R. J. (2006). "Alone together?" *Exploring the social dynamics of massively multiplayer online games*. Proceedings of the ACM Conference on Human Factors in Computing Systems (CHI 2006), Montreal; Canada (pp. 407-416) Retrieved from <http://portal.acm.org/citation.cfm?id=1124772.1124834>

- Durkin, K. (2006). Game playing and adolescents' development. In P. Vorderer & J. Bryant (Eds.), *Playing video games: Motives, responses, and consequences* (pp. 415-428). Mahwah, NJ: Lawrence Erlbaum Associates.
- Fairbanks, C. M. (2000). Fostering adolescents' literacy engagements: "Kid's business" and critical inquiry. *Reading research and instruction, 40*(1), 35-50.
- Ferdig, R. E. (2007). Learning and teaching with electronic games. *Jl. of Educational Multimedia and Hypermedia, 16*(3), 217-223.
- Funk, J. B., Hagen, J. D., & Schimming, J. L. (1999). Children and electronic games: A comparison of parent and child perceptions of children's habits and preferences in a United States sample. *Psychological Reports, 85*, 883-888.
- Gallego, M. A., & Hollingsworth, S. (Eds.). (2000). *What counts as literacy: Challenging the school standard*. New York, NY: Teachers College University.
- Gambrell, L. B. (2001). What we know about motivation to read. In R. F. Flippo (Ed.), *Reading researchers in search of common ground*. Newark, DE: International Reading Association.
- Garris, R., Ahlers, R., & Driskell, J. E. (2002). Games, motivation, and learning: A research and practice model. *Simulation & Gaming, 33*(4), 441-467.
- Gee, J. P. (1991). *Social linguistics: Ideology in discourses*. London, England: Falmer Press.
- Gee, J. (1992). *The social mind: Language, ideology and social practice*. New York, NY: Bergin and Garvey.
- Gee, J. P. (1996). *Social linguistics and literacies: Ideology in discourses* (2nd ed.). London, England: Falmer Press.
- Gee, J. P. (1998). What is literacy? In R. Spack & V. Zamel (Eds.), *Negotiating academic literacies: Teaching and learning across languages and cultures* (pp. 51-60). Mahwah, NJ: Lawrence Erlbaum Associates.
- Gee, J. P. (2000). Teenagers in new times: A new literacy studies perspective. *Journal of Adolescent & Adult literacy, 43*(5), 412-420.
- Gee, J. P. (2003). *What video games have to teach us about learning and literacy*. New York, NY: Palgrave Macmillan.
- Gee, J. P. (2003). *Good video games and good learning*. Retrieved April 9, 2007, from http://www.academiccolab.org/resources/documents/Good_Learning.pdf

- Gee, J. P. (2004). *Situated language and learning: A critique of traditional schooling*. New York, NY: Routledge.
- Gee, J. P. (2007). *Good video games + Good learning*. New York, NY: Peter Lang.
- Gee, J. P. (2007). Foreword. In L. S. Cynthia & G. E. Hawisher (Eds.), *Gaming lives in the twenty-first century*. New York, NY.
- Gibson, D., Aldrich, C., & Pensky, M. (2006). *Games and simulations in online learning: Research and development frameworks*. Hershey, PA: Idea Group Inc (IGI).
- Giroux, H. A. (1987). Literacy and the pedagogy of political empowerment. In P. Freire & D. Macedo (Eds.), *Literacy: Reading the word the world* (pp. 1-27). South Hadley, MA: Bergen & Garvey.
- Glaser, B., & Strauss, A. (1967). *The discovery of grounded theory: Strategies for qualitative research*. Chicago, IL: Aldine.
- Glesne, C., & Peshkin, A. (1992). *Becoming qualitative researchers: An introduction*. White Plains, NY: Longman.
- Glesne, C. (1999). *Becoming qualitative researchers: An introduction*. New York: Longman.
- Greenfield, P. M., & Subrahmanyam, K. (2003). Online discourse in a teen chatroom: New codes and new modes of coherence in a visual medium. *Journal of Applied Developmental Psychology, 24*(6), 713-738.
- Griffiths, M. D., Davies, M. N. O., & Chappell, D. (2004). Online computer gaming: a comparison of adolescent and adult gamers. *Journal of Adolescence, 27*(1), 87-96.
- Guthrie, J. T. (1996). Educational contexts for engagement in literacy. *Reading Teacher, 49*(6), 432-445.
- Guthrie, J. T., McGough, K., Bennett, L., & Rice, M. E. (1996). Concept-oriented reading instruction: An integrated curriculum to develop motivations and strategies for reading. In L. Baker, P. Afflerbach & D. Reinking (Eds.), *Developing engaged readers in school and home communities* (pp. 165-190). Hillsdale, NJ: Erlbaum.
- Guthrie, J. T., Meter, P. V., McCann, A., Anderson, E., & Alao, S. (1996). Does concept-oriented reading instruction increase motivation, strategies, and conceptual learning? *Reading Research Report, 66*.
- Guthrie, J. T., Meter, P. V., McCann, A. D., Wigfield, A., Bennett, L., Poundstone, C. C., et al. (1996). Growth of literacy engagement: Changes in motivations and strategies during concept-oriented reading instruction. *Reading Research Quarterly, 31*(3), 306-332.

- Guthrie, J. T. (1997). Engagement in reading for young adolescents. *Journal of Adolescent & Adult Literacy*, 40(6), 438-446.
- Guthrie, J. T., & Alao, S. (1997). Designing contexts to increase motivations for reading. *Educational Psychologist*, 32, 95-105.
- Guthrie, J. T., & McCann, A. D. (1997). Characteristics of classrooms that promote motivations and strategies for learning. In J. T. Guthrie & A. Wigfield (Eds.), *Reading engagement: Motivating readers through integrated instruction* (pp. 128-148). Newark, DE: International Reading Association.
- Guthrie, J. T., & Wigfield, A. (Eds.). (1997). *Reading engagement: Motivating readers through integrated instruction*. Newark, DE: Reading Association.
- Guthrie, J. T., & Anderson, E. (1999). Engagement in reading: Process of motivated, strategic, knowledgeable, social readers. In J. T. Guthrie & D. E. Alvermann (Eds.), *Engaged reading: Processes, practices, and policy implications* (pp. 17-45). New York, NY: Teachers College Press.
- Guthrie, J. T. (2001). Contexts for engagement and motivation in reading. *Reading Online*, 4(8).
- Guthrie, J. T., & Davis, M. H. (2003). Motivating struggling readers in middle school through an engagement model of classroom practice. *Reading & Writing Quarterly*, 19, 59-85.
- Guthrie, J. T. (2004). Teaching for literacy engagement. *Journal of Literacy Research*, 36, 1-30.
- Guzzetti, B. J. (2006). Cybergirls: negotiating social identities on cybersites. *E-Learning*, 3(2), 158-169.
- Hagood, M. C., Stevens, L. P., & Reinking, D. (2002). What do they have to teach us? Talkin' cross generations! In D. E. Alvermann (Ed.), *Adolescents and literacies in a digital world*. New York, NY: Peter Lang Publishing, Inc.
- Heath, S. (1982). Protean shapes in literacy events: Ever-shifting oral and literate traditions. In D. Tannen (Ed.), *Spoken and written language: Exploring orality and literacy* (pp. 91-117). Norwood, NJ: Ablex.
- Heath, S. B. (1983). *Ways with words*. Cambridge, UK: Cambridge University Press.
- Heller, S., & Pomeroy, K. (1997). *Design literacy: Understanding graphic design*. New York, NY: Allworth Press.
- Herselman, M. E., & Technikon, P. E. (2000). University students benefitting from the medium of computer games: A case study. *South African Journal of Higher Education*, 14(3), 139-150.

- Hobbs, R. (1996). *Expanding the concept of literacy*. Retrieved March 5, 2009, from <http://www.mediaeducationlab.com/pdf/Expanding%20the%20Concept%20of%20Literacy,%20Hobbs.pdf>
- Horsburgh, D. (2003). Evaluation of qualitative research. *Journal of Clinical Nursing*, 12(2), 307-312.
- Hull, G., & Schultz, K. (2001). Literacy and learning out of school: A review of theory and research. *Review of Educational Research*, 71(4), 575-611.
- Hull, G. Y., & Schultz, K. (Eds.). (2002). *School's out!: Bridging out-of-school literacies with classroom practice*. New York, NY: Teachers College Press.
- Ito, M., Horst, H., Bittanti, M., boyd, d., Herr-Stephenson, B., Lange, P. G., et al. (2008). *Living and learning with new media: Summary of findings from the digital youth project*. Retrieved April 2009, 2009, from <http://digitalyouth.ischool.berkeley.edu/files/report/digitalyouth-WhitePaper.pdf>
- Ivey, G., & Broaddus, K. (2001). "Just plain reading": A survey of what makes students want to read in middle school classrooms. *Reading Research Quarterly*, 36(4), 350-377.
- Järvelä, S., Veermans, M., & Leinonen, P. (2008). Investigating student engagement in computer-supported inquiry: a process-oriented analysis. *Journal Social Psychology of Education*, 11(3), 299-322.
- Jenkins, H. (2000). *Art form for the digital age: Video games shape our culture. It's time we took them seriously*. Retrieved October 8th, 2008, from <http://www.technologyreview.com/computing/12189/?a=f>
- Jenkins, H. (2005). Getting into the game. *Educational Leadership*, 62(7), 48-51.
- Jenkins, H. (2006). *Convergence culture: Where old and new media collide*. New York, NY: New York University Press.
- Jenkins, H., Purushotma, K., Weigel, M., & Robison, A. J. (2006). *Confronting the challenges of participatory culture: Media education for the 21st century*. Retrieved October 20, 2008, from http://digitalllearning.macfound.org/atf/cf/%7B7E45C7E0-A3E0-4B89-AC9C-E807E1B0AE4E%7D/JENKINS_WHITE_PAPER.PDF
- Jewitt, C. (2008). Multimodality and Literacy in School Classrooms. *Review of Research in Education*, 32(1), 241-267.
- Jolly, K. (2008). Video games to reading: Reaching out to reluctant readers. *English Journal*, 97(4), 81-86.

- Journet, D. (2007). Narrative, action, and learning: The stories of Myst. In L. S. Cynthia & G. E. Hawisher (Eds.), *Gaming lives in the twenty-first century*. New York, NY: Palgrave Macmillan.
- Juul, J. (2005). *Half-real: Video games between real rules and fictional worlds*. Cambridge, UK: The MIT Press.
- Krashen, S. (1981). *Second language acquisition and second language learning*. Oxford, UK: Pergamon Press
- Krashen, S. (1998). *TPR: Still a very good idea*. Retrieved December 8, 2010, from <http://www.languageimpact.com/articles/other/krashentpr.htm>
- Kress, G., & van Leeuwen, T. (1996). *Reading images: The grammar of visual design*. London, England: Routledge.
- Kress, G. (2003). *Literacy in the new media age*. New York, NY: Routledge.
- Kress, G., & Jewitt, C. (2003). Introduction. In C. Jewitt & G. Kress (Eds.), *Multimodal literacy* (pp. 1-18). New York, NY: Peter Lang.
- Krzywinska, T. (2008). World creation and lore: World of Warcraft as rich text. In H. G. Corneliussen & J. W. Rettberg (Eds.), *Digital culture, play and identity*. Cambridge, MA: The MIT Press.
- Lankshear, C., Peters, M., & Knobel, M. (2002). Information, knowledge and learning: Some issues facing epistemology and education in a digital age. In M. Lea & K. Nicolls (Eds.), *Distributed learning* (pp. 16-37). London, England: RoutledgeFalmer.
- Lankshear, C., & Knobel, M. (2006). *New literacies: Everyday practices and classroom learning* (2nd ed.). New York, NY: Open University Press.
- Leu, D. J., Zawilinski, L., Castek, J., Banerjee, M., Housand, B., Liu, Y., & O'Neil, M. (2007). What is new about the new literacies of online reading comprehension? In L. Rush, J. Eakle & A. Berger (Eds.), *Secondary school literacy: What research reveals for classroom practices* (pp. 37-68). Urbana, IL: National Council of Teachers of English.
- Lincoln, Y. S., & Guba, E. G. (1985). *Naturalistic enquiry*. London, England: Sage.
- Lindley, C. A. (2002). *The gameplay gestalt, narrative, and interactive storytelling*. Paper presented at the Computer Games and Digital Cultures Conference, Tampere, Finland.
- Liu, M., Moore, Z., Graham, L., & Lee, S. (2003). A look at the research on computer-based technology use in second language learning: A review of the literature from 1990-2000. *Journal of Research on Technology in Education*, 34(3), 250-273.

- Ljung, M. (1986). *Om svordomar*. Stockholm, Sweden: Akademilitteratur.
- Lobel, J. (2006). *Multiplayer computer gaming simulations facilitating cooperative learning*. Retrieved September, 2007, from https://www.cs.tcd.ie/~lobelj/portfolio/literature_review/literature_review_jonathan_lobe1.pdf
- Major new study shatters stereotypes about teens and video games*. (2008, September 16). Retrieved October 26, 2008, from http://www.macfound.org/site/apps/nlnet/content3.aspx?c=IkLXJ8MQKrH&b=1139551&content_id={CF9B933A-8261-4FE5-B9AD-AD751CDEEFC6}¬oc=1
- Margolis, J. L., Nussbaum, M., Rodriguez, P., & Rosas, R. (2006). Methodology for evaluating a novel education technology: a case study of handheld video games in Chile. *Computers & Education, 46*, 174-191.
- McMahan, A. (2003). Immersion, engagement, and presence: A method for analyzing 3-D video games. In M. J. P. Wolf & B. Perron (Eds.), *The video game theory reader* (pp. 67-86). New York, NY: Routledge.
- Merriam, S. B. (1998). *Qualitative research and case studies applications in education*. San Francisco, CA: Jossey-Bass Publications.
- Miles, M. B., & Huberman, A. M. (1994). *Qualitative data analysis: An expanded sourcebook*. Thousand Oaks, CA: Sage.
- Millians, D. (1999). Simulations and young people: Developmental issues and game development. *Simulation & Gaming, 30*(2), 199-226.
- Moberly, K. (2008). Composition, computer games, and the absence of writing. *Computers and composition, 25*(3), 284-299.
- Moll, L., Amanti, C., Neff, D., & González, N. (1992). Funds of knowledge for teaching: Using a qualitative approach to connect homes and classrooms. *Theory Into Practice, 31*, 132-141.
- Moreno, R., & Mayer, R. (2007). Interactive multimodal learning environments. *Educational Psychology Review, 19*(3), 309-326.
- Morton, H., & Jack, M. A. (2005). Scenario-based spoken interaction with virtual agents. *Computer Assisted Language Learning, 18*(3), 171-191.
- Mosenthal, P. B. (1999). Understanding engagement: Historical and political contexts. In: J. T. Guthrie & D. E. Alvermann (Eds.), *Engaged reading: Processes, practices, and policy implications* (pp. 1-16). New York, NY: Teachers College Press.

- National Center for Education Statistics. (2003). *The Nation's report card*. Retrieved September 7, 2004, from <http://nces.ed.gov/nationsreportcard/>
- O'Brien, D. G. (1998). Multiple literacies in a high-school program for "at-risk" adolescents. In D. E. Alverman, K. A. Hinchman, D. W. Moore, S. F. Phelps & D. R. Waff (Eds.), *Reconceptualizing the literacies in adolescents' lives* (pp. 27-49). Mahwah, NJ: Erlbaum.
- O'Brien, D. (2001). "At-risk" adolescents: Redefining competence through the multiliteracies of intermediality, visual Arts, and representation. *Reading Online*, 4(11).
- Obidah, J. E. (1998). Black-Mystory: Literate currency in everyday schooling. In D. E. Alvermann, K. A. Hinchman, D. W. Moore, S. F. Phelps & D. R. Waff (Eds.), *Reconceptualizing the literacies in adolescents' lives* (pp. 51-71). Mahwah, NJ: Erlbaum.
- Oldenburg, R. (1991). *The great good place: Cafes, coffee shops, bookstores, bars, hair salons, and other hangouts at the heart of a community*. New York, NY: Paragon House.
- Pahl, K. (1999). *Transformations: Children's meaning making in nursery education*. Stoke-on-Trent, UK: Trentham.
- Pandey, I. P., Pandey, L., & Shreshtha, A. (2007). Transcultural literacies of gaming. In C. L. Selfe & G. E. Hawisher (Eds.), *Gaming lives in the twenty-first century* (pp. 21-35). New York, NY: Plgrave Macmillan.
- Pena, J., & Hancock, J.T. (2006). An analysis of instrumental and socio-emotional content in online multi-player videogames. *Communication Research*, 33(1), 92-109.
- Phelps, S. (2005). *Ten years of research on adolescent Literacy, 1994-2004: A review*. Retrieved May 20th, 2009, from <http://www.eric.ed.gov/PDFS/ED489531.pdf>
- Postman, N. (1979). The first curriculum: Comparing school and television. *Phi Delta Kappan*, 61(3), 163-168.
- Postman, N. (1993). *Technology: The surrender of culture to technology*. New York, NY: Random House.
- Pourbaix, R. d. (2000). Emergent literacy practices in an electronic community. In D. Barton, M. Hamilton, & R. Ivanič (Eds.), *Situated literacies: Reading and writing in context* (pp. 125-148). New York, NY: Routledge.
- Prensky, M. (2001). *Digital game-based learning*. New York, NY: McGraw-Hill.
- Prensky, M. (2005). Engage me or enrage me: What today's learners demand. *Educause Review*, 40(5).

- Purushotma, R. (2005). Commentary: You're not studying, you're just... *Language Learning & Technology*, 9(1), 80-96.
- Raney, A. A., Smith, J. K., & Baker, K. (2006). Adolescents and the appeal of video games. In P. Vorderer & J. Bryant (Eds.), *Playing video games: Motives, responses, and consequences* (pp. 165-179). Mahwah, NJ: Lawrence Erlbaum Associates.
- Resnianskaia, L. (2000). *Whose literacies are disseminated by the educational technology? (The "images of literacy" on CD-ROMs and the Internet)*. Paper presented at the Australian Association for Research in Education Conference, The University of Sydney.
- Rice, J. (2007). Assessing higher order thinking in video games. *Journal of Technology and Teacher Education*, 15(1), 87-100.
- Robertson, J., & Good, J. (2005). Children's narrative development through computer game authoring. *TechTrends*, 49(5), 43-59.
- Rosas, R., Nussbaum, M., Cumsille, P., Marianov, V., Correa, M., Flores, P., et al. (2003). Beyond Nintendo: Design and assessment of educational video games for first and second grade students. *Computers and Education*, 40(1), 71-94.
- Ruddell, M. R. (2000). *Dot.com lessons worth learning: Student engagement, literacy, and project-based learning*. Retrieved October 10th, 2008, from <http://www.eric.ed.gov/PDFS/ED444119.pdf>
- Sanford, K., & Madill, L. (2007). Understanding the power of new literacies through video game play and design. *Canadian Journal of Education*, 30(2), 432-455.
- Sarsar, N. M. (2008). *What children can learn from MMORPGs*. Retrieved October 20, 2008, from <http://www.eric.ed.gov/PDFS/ED501741.pdf>
- Schallert, D. L., & Reed, J. H. (1997). The pull of the text and the process of involvement in reading. In J. T. Guthrie & A. Wigfield (Eds.), *Reading engagement: Motivating readers through integrated instruction*. Newark, DE: International Reading Association.
- Schwarz, G. (2003). Renewing the humanities through media literacy. *Journal of Curriculum and Supervision*, 19(1), 44-53.
- Seidman, I. (1991). Technique isn't everything, but it is a lot. In *Interviewing as qualitative research: A guide for researchers in education and the social sciences* (pp. 56-71). New York, NY: Teachers College Press.
- Selfe, C. L., Mareck, A. F., & Gardiner, J. (2007). Computer gaming as literacy. In C. L. Selfe & G. E. Hawisher (Eds.), *Gaming lives in the twenty-first century*. New York: Palgrave Macmillan.

- Shaffer, D. W., Squire, K. R., Halverson, R., & Gee, J. P. (2004). *Video games and the future of learning*. Madison, WI: University of Wisconsin-Madison and Academic Advanced Distributed Learning Co-Laboratory.
- Shaffer, D. W. (2006). *How computer games help children learn*. New York, NY: Palgrave Macmillan.
- Sherry, J. L., Lucas, K., Greenberg, B. S., & Lachlan, K. (2006). Video game uses and gratifications as predictors of use and game preference. In P. Vorderer & J. Bryant (Eds.), *Playing video games: Motives, responses, and consequences* (pp. 213-224). Mahwah, NJ: Lawrence Erlbaum Associates.
- Smith, E., & Deitsch, E. (2007). Lost(and found) in translation: Game localization, cultural models, and critical literacy. In L. S. Cynthia & G. E. Hawisher (Eds.), *Gaming lives in the twenty-first century*. New York, NY: Palgrave Macmillan.
- Smith, L. M. (1978). An evolving logic of participant observation, educational ethnography and other case studies. In L. Shulman (Ed.), *Review of research in education*. Itasca, IL: Peacock.
- Squire, K., & Barab, S. (2004). *Replaying History: Engaging urban underserved students in learning world history through computer simulation games*. Paper presented at the 2004 International Conference of the Learning Science. Mahwah, NJ.
- Squire, K. (2005). *Changing the game: What happens when video games enter the classroom*. Retrieved April 27, 2009, from http://www.academiccolab.org/resources/documents/Changing%20The%20Game-final_2.pdf
- Squire, K. (2006). From content to context: videogames as designed experience. *Educational Researcher*, 35(8), 19-29.
- Stake, R. E. (1995). *The art of case study research*. Thousand Oaks, CA: Sage.
- Stenström, A.-B., Andersen, G., & Hasund, I. K. (2002). *Trends in teenage talk: Corpus compilation, analysis and findings*. Amsterdam/Philadelphia: John Benjamins Publishing Company.
- Street, B. (1984). *Literacy in theory and practice*. Cambridge, UK: Cambridge University Press.
- Street, B. V. (1988). Literacy practices and literacy myths. In R. Saljo (Ed.), *The written world: Studies in literate thought and action* (pp. 59-72). New York, NY: Springer-Verlag.
- Street, B. V. (1993). The new literacy studies: Guest editorial. *Journal of Research in Reading*, 16(2), 81-97.

- Street, B. (2003). What's "new" in New Literacy Studies? Critical approaches to literacy in theory and practice. *Current issues in comparative education*, 5(2), 77-91.
- Street, B. V. (Ed.). (2005). *Literacies across educational contexts: Mediating learning and teaching*. Philadelphia, PA: Caslon Publishing.
- Street, B. (2005). New literacies in theory and practice: What are the implications for language in education. In Z. Fang (Ed.), *Literacy teaching and learning: Current issues and trends*. Columbus, OH: Merrill Prentice Hall.
- The New London Group (1996). A pedagogy of multiliteracies: Designing social futures. *Harvard Educational Review*, 66(1).
- Thomas, S., & Oldfather, P. (1996). Enhancing student and teacher engagement in literacy learning: A shared inquiry approach. *Reading Teacher*, 49(3), 192-205.
- Tomlinson, C. A., & Doubet, K. (2005). Reach them to teach them. *Educational Leadership*, 62(7), 8-13.
- Turner, J., & Paris, S. G. (2005). How literacy tasks influence children's motivation for literacy. In Z. Fang (Ed.), *Literacy teaching and learning: Current issues and trends*. Columbus, OH: Merrill Prentice Hall.
- Venezky, R. L. (1990). Gathering up, looking ahead. In R. L. Venezky, D. A. Wagner & B. S. Ciliberti (Eds.), *Toward defining literacy* (pp. 70-74). Pennsylvania, PA: International Reading Association.
- Vygotsky, L. S. (1978). *Mind in society: The development of higher psychological processes* (M. Cole, V. John-Steiner, S. Scribner & E. Souberman, Trans.). Cambridge, MA: Harvard University Press.
- Wells, L., & Blendinger, J. (1998). *How middle school students spend their time outside of school: A longitudinal investigation*. Paper presented at the Mid-South Educational Research Association Conference, New Orleans, LA.
- Wigfield, A. (1997). Children's motivations for reading and reading engagement. In J. T. Guthrie & A. Wigfield (Eds.), *Reading engagement: Motivating readers through integrated instruction* (pp. 14-33). Newark, DE: International Reading Association.
- Wilhelm, J. D., & Smith, M. W. (2001). Literacy in the lives of young men: Findings from an American study. *English in Australia*, 132, 17-28.
- Williams, B. T. (2004). Are we having fun yet? Students, social class, and the pleasure of literacy. *Journal of Adolescents & Adult Literacy*, 48(4), 338-342.

- Williams, B. T. (2005). Leading double lives: Literacy and technology in and out of school. *Journal of Adolescents & Adult Literacy*, 48(8), 702-706.
- Williams, D. (2003). The video game lightning rod. *Information, Communication & Society*, 6(4), 523-550.
- Williams, D. (2007). Afterword: The return of the player. In C. L. Selfe & G. E. Hawisher (Eds.), *Gaming lives in the twenty-first century* (pp. 253-259). New York, NY: Palgrave Macmillan.
- Williams, M. (2008). Avatar watching: participant observation in graphical online environments. *Qualitative Research*, 7(1), 5-24.
- Windschitl, M. (1999). The challenges of sustaining a constructivist classroom culture. *Phi Delta Kappan*, 80(10), 751-755.
- Worthy, J., & Prater, K. (2002). "I thought about it all night": Readers theatre for reading fluency and motivation. *Reading Teacher*, 56(3), 294-297.
- Yee, N. (2006). *The demographics, motivations and derived experiences of users of massively-multiuser online graphical environments*. Retrieved March 18, 2009, from <http://www.mitpressjournals.org/doi/abs/10.1162/pres.15.3.309>
- Yi, Y. (2005). *Immigrant students' out-of-school literacy practices: A qualitative study of Korean students' experiences*. The Ohio State University, Columbus, Ohio.
- Yin, R. K. (1994). *Case study research: Design and methods* (2nd ed.). Thousand Oaks, CA.: Sage.
- Yip, F. W. M., & Kwan, A. C. M. (2006). Online vocabulary games as a tool for teaching and learning English vocabulary. *Educational Media International*, 43(3), 232-249.
- Zhang, Y. (2001). *Re-Conceptualizing Engagement in Reading through Miscue Research*. Paper presented at the International Symposium on Language Teaching, Beijing, China.
- Zhao, Y., & Lai, C. (2009). MMORPGs and foreign language education. In R. E. Ferdig (Ed.), *Handbook of research on effective electronic gaming in education*. Hershey, PA: Information Science Reference.