Rhetoric for Synchronous video communication

Chrysoula Themeli, Educational Research, Hellenic - American University, Athens, Greece

Justin Bonzo, Educational Research, Lancaster University, Lancaster, United kingdom

Abstract - Synchronous video communication (SVC) offers a promising way of providing opportunity for synchronous conversation and learning between members of a group that is separated by distance. The perceived benefits of SVC are: presence, immediate feedback, access, cost, and interaction. This presentation will look at the perceived benefits through the research lens of participatory and appreciative action and reflection. The concepts of rhetoric, ethos, pathos and logos will be used to illustrate the possibility of research praxis. It is hoped that this will help generate knowledge of this medium and the possible rhetorical factors that may influence the pedagogy behind SVC.

Keywords: rhetorics, logos, ethos, pathos.

1 Introduction

Synchronous video communication (SVC) - synonymous with video conference or Interactive Videoconference - is defined as real-time, video-enhanced conversation, an immediate give and take, between at least two participants in different locations (Alexander, Higgison, & Mogey, 1999; Chandler & Hanrahan, 2000; Gibson & Cohen, 2003; Suthers, 2001). The prominent characteristic feature of SVC is the immediate exchange of information and sharing of facilities among distant users (Brown, 2001; Finn, Sellen, & Wilbur 1997; Andrews, T. & Klease, G. 1998; Gürer, et all 1999). It is opposite of webcasting, which is dominated by lectures in situ (Haga & Kaneda, 2005). The introduction of the videoconference facility to the education system some 20years-ago was quickly recognized as having the potential to resolve difficulties facing distance education (Gillies, 2008, p.108) Since then, more and more people are using videoconferencing to communicate, teach, learn, and facilitate their education or research in many fields (Gillies, 2008; Chia et al, 2009 ;Sedgwick & Spiers , 2009).

Though distance education is expanding in all continents, SVC has not been an option thoroughly investigated (Saw et al, 2008; Knipe & Lee, 2002).

"However, due to the current commitment to educational convenience that has been institutionalized in asynchronous distance education programs, little, if any, progress in integrating audio and videoconferencing tools into distance education has been made" (Corbeil, 2006) p.388).

There is a great deal of optimism about the potential of distance education technology (Larreamendy-Joerns &

Leinhardt, 2006) and, until recently, this type of instruction has typically been asynchronous in nature. That is to say, a greater integration of videoconferencing with open learning environments and other social media tools could help make better sense to learners (Tomadaki et al, 2008). Hrastinski (2008) maintains that users decide how, why and when to use a medium and their preferences need to be taking seriously while designing online courses. Research findings in relation to outcomes and meeting educational needs in using SVC are mostly consistent, while findings about satisfaction among educators and students are inconclusive (Berger et al. 2009, p.478). Therefore, SVC deserves pedagogical reinvention and further inquiry (Anastasiades, 2006). The aims of this study are:

- to acknowledge what users perceive as the strength of the SVC
- to identify rhetorical appeals as factors that could enhance a holistic pedagogy
- To reinvent a new holistic pedagogy so as to improve future praxis of SVC

2 Literature review

Benefits of SVC: Its perceived benefits can be summarized in terms of, presence, immediate feedback, access, cost, and interaction.

1. Presence - Living the moment of learning

Real time video communication could promote teaching, and cognitive and social presence. Garrison, Anderson, and Archer (2000) argue that three aspects of computermediated communication are needed for any educational transaction: cognitive presence, social presence and teaching presence. To illustrate, cognitive presence can be defined as the learning process though which learners negotiate meaning and construct new knowledge. Short and colleagues (1976) describe social presence as the ability of a medium to allow people to experience the actual presence of a communicator. Gillies (2008) found out that social presence is the element that should be maximized during videoconference sessions. Gunawardena and Zittle (1997) related intimacy and immediacy to social presence, claiming that feelings associated with social presence is a predictor of learner satisfaction in online environments. Last but equally important, teaching presence can be seen as tutors' work of instruction inspiration and motivation in order to guide and support learners 'experiences.

As real time video links enhance the presence experience (Lombard and Ditton, 1997), videoconferencing has been deployed in physically distributed workgroups around the world. While face-to-face communication is rich because it includes deictic elements and objects visible to both participants of the communication (Nardi. 2005). videoconferencing entails the most essential elements of a meeting (Townsend et al, 2002). In addition, a number of research studies concluded that nonverbal and verbal cues fostered all kinds of benefits : more learning, more student motivation, and more empowerment (Freitas, 1998, pp. 366-67; Haefner, 2000; Chapman, Uggerslev, et al., 2003). Another important role of media is to provide valuable 'cues' about the presence of others, including facial expressions and other key aspects of presence (Short et al, 1976). Gillies (2008) refers to the studies of many authors (Hills, 2005; Ryan, Scott, Freeman, & Patel, 2000; Smyth, 2005) who claim that the improvements brought by bandwidth links have lifted many barriers. It means that the quality of video is now such that it removes many of the issues of facial expression and body language which previously limited the degree of 'social presence' possible in the videoconference.

2. Immediate feedback

Secondly, it provides immediate feedback. Videoconferencing has made it possible for students to feel as if they are part of a real classroom-learning environment by providing immediate contact, motivation, and clarification of meaning (Steeples, Jones, & Goodyear, 2002). De Freitas and Neumann (2009) refers to the paper of Schullo et al, (2005), which is focused upon distance education, and argues that there are two main challenges: "ensuring the maximum interaction with groups and a 'lack of confirmed pedagogic strategy for supporting work in synchronous environments" (Schullo et al,2005, p. 3). Their study found that learners who were left behind, were not helped enough by the use of asynchronous methods as "lack of immediacy still makes it difficult for students to connect quickly with each other or their instructor" (Schullo et al, p. 3). In addition, they claim that passive modes of delivering content and a lack of active student participation or effective interaction cause more difficulties in distance education cohorts such as high dropout rates, because of limited or no face-to-face contact between students and tutors (de Freitas & Roberts, 2004).

3. Access

Remote access to expert input or opinion is also cited as a benefit of videoconference (Laurillard, 2002, p. 156). This is not only academically advantageous for learners, but is also an economically efficient way for institutions to provide quality staff-student contact (Gilles, 2008, p.108; Ba, & Keisch, 2004). The audience for courses can be increased by teaching face to face with one group and providing access to a second centre elsewhere (Carville & Mitchell 2000).

4. Cost

Videoconferencing has not only allowed U.S. state universities to address their 'mandate for equal access to

citizens wherever they were located in the state,' but it also provided them with a cost effective way of doing so (Bates, 2005, p. 180).

5. Interaction

Gillies (2008) refers to literature (Bates, 2005; Fardanesh, 2002; Mason, 1998,Offir & Lev, 2000; Ryan et al., 2000; Smyth, 2005) that points to effective interaction as a prerequisite for successful videoconferencing in education, although only sometimes is the required methodology for this aspect of constructivist thinking fully provided. Studies have shown that videoconferencing, under careful organization, can enhance computer-supported group-based learning. This is an important part of contemporary education, focusing on 'cooperative' and 'collaborative' learning, inspired by collaborative environments similar to original working processes (Strijbos et al, 2003). Compared to other methods of distance education, videoconferencing has promised benefits in terms of real-time interaction, immediacy, motivation, and collaborative learning (Bates, 2005; Brown & Liedholm, 2002; Guri-Rosenblit, 1999; Rosen, 1996; Gilles, 2008). Learners together at a remote site can experience particular social benefits to aid their learning. There is the sense of togetherness and shared experience, a fellowship that can help offset the particular danger of attrition where students study both remotely and individually (Bates, 2005; Wheeler, 2005; Wheeler & Amiotte, 2004). Further social advantages from interaction mostly marked at primary or secondary education levels where it has been used to bring together children and young people from very different linguistic, social, and cultural backgrounds. There is a considerable body of research evidence, which points to the benefits of mutual understanding, broadened awareness, tolerance, and new insights, afforded by videoconference interaction of this kind (Abbott, Austin, Mulkeen, & Mecalfe, 2004; Austin, Smyth, Mallon, Mulkeen, & Metcalfe, 2004; Cifuentes & Murphy, 2002; Comber, Lawson, Gage, Cullum-Henshaw, & Allen, 2004; Jones & Sorenson, 2001; Lewental & Kress, 2005; Martin,2005; Payne, Gooday, Coutts, Duncan, & Wolfe, 2006 Anastasiades, 2009, Gilles, 2008). Last but equally important, in the case of web-based courses, enhanced opportunities for active participation of students who are hesitant to express themselves in a traditional classroom setting (Anastasiades et al. 2009)

Challenges and Implications

Perceived implications of the videoconference in educational settings can be summarized as relating primarily to issues of technological obstacles, flexibility, and pedagogy.

1. Technological obstacles

The foremost disadvantages of video conferencing are the technical difficulties associated with smooth transmissions that could result from software, hardware or network failure. Remote connections are sometimes hampered by environmental changes. On some occasions, the absence of

technical support personnel creates difficulty for participants who are unfamiliar with the videoconferencing technological concepts. Where there are many individuals involved, the camera may not identify the speaker readily in an interactive setting and so others may need to rely on voice alone, which is limiting. "Issues around sound (the receiving site had to come up to a mic to talk), time delay, and picture quality impeded the instructor's spontaneity and made the lecture "rather stilted" (Carville & Mitchell 2001, p.45).

2. Pedagogy

One of the reputed pedagogical problems of the videoconference is the lecture format. Gilles (2008) draw early evidence in the literature and maintains that videoconferencing was dominated by lecturing (Dallat, Frazer, Livingston, & Robinson, 1992; Freeman, 1998; Mason, 1998; Oliver & Reeves, 1996). The role of the educator using the medium needs to be seen under different light.

Simply transferring 'live' classroom approaches to the videoconference suite is seen as inadequate (Martin, 2005; Ryan et al., 2000; Smyth, 2005; Gilles, 2008).To illustrate, SVC may not maintain the attention of all participants (Reed & Wooduff, 1995).

3. Real-time interaction or no time,

It does obviously restrict the autonomy of the learner because, time zone may cause difficulties and if some participants miss the online session it may not be possible to attend another one. The technological logistics, currently at least, require that distant students have to be present at a site, at a set time, to access locally the programmes coming from a distant provider (Bates, 2005, p. 180)

Curant et al. (2008, p.6) maintain that 'one-size-fits-all' approach to retaining students and providing them with engaging online learning environments is not efficient. They firmly believe that it is not productive to use technology in teaching methods and expect students to use it appropriately (Currant & Whitfield, 2007). Thus, real-time video enhanced learning could be investigated further with the experienced with specific tools and media affordances but students and tutors preferences and digital literacy may play a key-role in the learning process.

Theoretical framework

It is the theory which decides what we can observe. \sim Albert Einstein (1879-1955)

Rhetoric is the study of writing and speaking as a means of communication (Merriam-Webster dictionary), one of the most important of Aristotle's philosophies. Aristotle believed that rhetorical appeals, logos, pathos and ethos help audience understand ideas presented, and move people to new ways of thinking and acting. Ethos is a demonstration of good will towards the audience, good sense of knowledge of the subject at hand and good character. It is also an effort to establish common ground among participants. Logos is the effective use of reason and pathos entails stirring of emotions (Glenn & Gray, 2008 pp. 122-123). Rhetoric for the purposes of this inquiry can be defined as the pedagogy of speaking, writing, and participating in online activities via video communication. The inspiration of Aristotle's rhetorical appeals played a critical role in framing the research questions, without assuming exact parallel with his philosophy.

For this study, rhetoric is a new pedagogy under investigation. Rhetorical appeals (logos pathos and ethos) are considered as contributing factors. Logos in the context of SVC demonstrates the use of reason: asking questions, providing concepts, reframing concepts and generating new ideas. It is closely correlated with cognitive presence. Cognitive presence is defined as the extent to which learners are able to construct and confirm meaning through sustained discourse and critical thinking (Garrison et al. 2000, 2001). Both these definitions focus on the construction of meaning through a process of inquiry. This means a shift from "lecturing and telling" to questioning, reflexivity, and open inquiry. After all, Plato's dialogues have been an integral part of teaching and learning. Dialogue and conversation are by definition immediate interchanges that are synchronous (Haefner, 2000). Ethos, in the SVC environment, establishes social harmony and entails participants' good will towards the audience, credibility of information exchanged and empowering participation in a democratic environment (Fung, 2006). It presupposes freedom to negotiate educational objectives and organization. Finally, Pathos demonstrates itself through empathy, authentic understanding, and appreciation for best intentions and praxis. Pathos is partially correlated with the concept of Appreciative intelligence. It is the appreciation the users share with one another while learning.

Trochim (2006) states that there are two realms involved in research—theory and observation. I am interested in finding what are the strengths of SVC. My interest comes about because I have observed that the factors influencing the best practice of the medium can be related to rhetoric, the pedagogy of writing, speaking as a means of communication. Thus, it remains to be tested if this hypothesis is true, to what extent and in what ways. The inspiration of Aristotelian Rhetoric in the foreground of SVC will create an axiology – a set of criteria – to evaluate critically the theoretical assumption, that logos, pathos and ethos as they are defined for the purposes of this project may correlated positively or negatively with the best educational praxis of SVC in the field of distant education.

Overarching Research Questions

1)What are the strengths and best practice of synchronous video communication?

2)To what extent and in what ways rhetoric (living the moment of learning with logos, pathos, and ethos) could affect best praxis SVC?

Rhetoric, Methodology, and praxis for Synchronous video communication (SVC)

Rhetoric as pedagogy defined above, could be implemented in a democratic, participatory and dialogical framework. The methodology aligned is called, participatory and appreciative action and reflection (PAAR) .The label 'participatory and appreciative action and reflection' (PAAR) was first used by Ghaye (2008). It adds a new dimension to participatory action research, Appreciative Intelligence (AI); the ability to acknowledge best practices (Thatchenkery & Metzker, 2006).

Action research projects start from reflecting on a problem, framing, and finally resolving it. Ghaye et al, refer to Loughran (2006), who believes that if the researchers focus only on problems to solve they could easily be influenced by the negative connotations of the word 'problem' which means error of judgment or failure. Ghaye et al,(2008, p.362) draws on the work of Kemmis (2005), who argues that 'changing practice' is a "task of changing such things as discourse in which practices are constructed and the social relationships which constitute practice".

Thus, PAAR is based on identifying the successes and strengths. What makes people and practice better? They (Ghave et al, 2008) define PAAR as a style of research, which requires researchers to use their "appreciative intelligence, to focus on the best of what is currently experienced, seek out the root causes of this, then design and implement actions that amplify and sustain this success". In the same vein, Zeichner (2001, p.278) acknowledges that in educational action research the focus must change from the student problems to the student resources and accomplishments (p. 278).

The main question PAAR asks is: "what are our successes and how can we amplify them to build and sustain a better future from valued aspect of the positive present?" (p.364). It is described in the framework of appreciative intelligence and multiple intelligences theory Gardner (1993). "Appreciative Intelligence is the ability to perceive the positive inherent generative potential in a given situation and to act purposively to transform the potential to outcomes" (Thatchenkery & Metzker, 2006). Thatchenkery and Metzker (2006) suggested that appreciative intelligence is composed of three characteristics: the ability to appreciate the positive, reframe it and see how the future evolves. It is not only a theoretical approach, it also involves social actions -"the necessary actions to positively engage with others so that valued outcomes unfolds from the generative aspects of the current situation"(Ghaye et al,2008,p. 366).

The participatory and appreciative characteristic (Jacobs, 2006; Ghaye et al, 2008) require all involved to be active, to be explicit about the perspective from which knowledge is created and to see democratic peer relationships as a form of inquiry that serves the practical ethos. PAAR actively draws upon the notion of empowered participation (Fung, 2006) and its associated process of deliberative democracy (Thomson & Gutmann, 2004). "Together these demonstrate a

commitment to positively engage with, and provide equal opportunities for, all those involved to participate directly in decisions that affect their own and others welfare" (Ghaye et al,2008p. 368).

The appreciative inquiry of PAAR helps the quest for treasure on the open sea because of the "appreciative intelligence". To explain, it makes the researcher ask questions people feel more comfortable to answer and contribute to. Thatchenkery, in his book 'Appreciative Inquiry and knowledge Management (2007), demonstrates that appreciation – or affirmation – is the key ingredient for people to trust each other and overcome their inhibitions and concerns about sharing what they know. It does not mean though that the project is a utopian adventure. On the contrary, critical reflection and transformative actions are integral part of the practical wisdom of the methodology (Kemmis,2006).

Some standards of PAAR 's judgment (Ghaye et al, 2008, p.375):

- 1. Inclusivity: How far have all interested participants, collectively, developed their appreciative 'gaze'?
- 2. Emotional engagement: How far is there evidence of participants being alive to PAAR as emotional work?
- 3. Understandability: How far are participants demonstrating a commitment to appreciative communicative action?
- 4. Mutualism: How far is there evidence of interdependence of creative and critical thinking?
- 5. Transformation: In the reframing of emotions, understanding, and practices, how far do 'new angles of vision' emerge?
- 6. Communicative freedom: When building practical wisdom, how far is the process ethically and socially justifiable and sustainable?
- 7. Moral courage: When moving forward, How far is there evidence of committed action to build a 'better' future from significant aspects of positive present?

The seven standards of PAAR can be seen as the logos, ethos and pathos democratic engagement and participation. Aristotelian Rhetoric is deemed to be not only the characteristics of public speakers and political figures but also of every democratic citizen that is aware with what is happening in the world. "A participatory worldview is a political statement, as well as a theory of knowledge that implies democratic, peer relationships as the form of inquiry" (Reason and Bradbury, 2001, p.9). Therefore, theoretical framework, methodology, and Praxis are interrelated in the following table.

| THEORETICAL | PAAR | PRAXIS |
|-------------|------------------|------------|
| FRAMEWORK | METHODOLOGY | |
| | STANDARDS | |
| Logos | Understandabiliy | Asking |
| | | questions, |

| | | providing or receiving | <i>Education.</i> 5-7 July, 2006, Scotland , Glasgow: Caledonian University. |
|----------------|---|-------------------------------|---|
| | Transformation | feedback Reframing | Austin, R., Smyth, J., Mallon, M., Mulkeen, A., & Metcalfe, N. (2004). <i>Dissolving boundaries</i> – |
| | Masteralita | concepts | Supportingtransformation in the classroom? RetrievedMarch3,2007,from |
| | Mutuality | Generate new ideas through | http://www.dissolvingboundaries.org/research/sep2004 .doc |
| Ethos Moral co | | interaction Credibility of | Ba, H., & Keisch, D. (2004). <u>Bridging the Gap Between Forma</u> and Informal Learning: Evaluating the Seatre |
| | Moral courage | information exchange, | <u>Distance Learning Project</u> . Retrieved Febuary 11, 2008, from <u>http://cct.edc.org/report_summary.asp?</u> <u>numPublicationId=177</u> |
| | | responsible | Bates, A. (2005). Technology, e-learning and distance |
| | | participation | education (2nd ed.). Abingdon, UK: Routledge. |
| | Communicative | Good will | Berger, R., Stein, L., & Mullin, J.B (2009). Videoconferencing: A |
| | freedom(social | towards the | Viable Teaching Strategy for Social Work Education? |
| | trust) | audience, | Social Work Education: The International Journal, |
| | | freedom to | 28(5), 476:ddoi:10.1080/0261570802308625 |
| | | negotiation of | Brown, S. (2001). Views on Videoconferencing Higher Education and Research Opportunities in the UK |
| | | objectives or organization | (HERO), March Issues - From <u>http://www.hero.ac.uk/inside_he/archive/views_on_vid</u> |
| Pathos | Inclusivity | Empathy, | eoconferencin883.cfm? |
| | | authentic | Brown, B., & Liedholm, C. (2002). Can web courses replace |
| | | understanding, | the classroom in principles of microeconomics? American Economic Review, 92(2), 444–448. |
| | | belonging to | |
| | | online | Chandler, G., & Hanrahan, P (2000). Teaching using interactive video: creating connections. <i>Journal of</i> |
| | Turational | community | Nursing Education 39, pp. 73–80. |
| | Emotional | Appreciate | Gibson, C., & Cohen, S. (eds.) (2003). Virtual Teams That |
| | engagement | different perspectives | Work: Creating Conditions for Effective Virtual Teams. San Francisco. CA: Jossey-Bass/Wiley. |
| Table 1 | I | perspectives | Chia, R.C., Poe, E. & Wuensch, K.L. (2009) Attitude Change after Taking a Virtual Global Understanding Course, <i>International Journal of Social Science</i> , 4:2 |
| References | | | $O_{\rm ext} = 1$ I.D. (2007) The (2.14) C. 1 |
| videoconferen | & Klease, G. (1998). Chall cing: The development of ing model <i>Australian Journ</i> | of an alternative | Corbeil, J.R. (2006). The (r)evolution of synchronous communication in distance education. <i>Issues in Information Systems</i> , 7(1), |

teaching/learning model. Australian Journal of Educational

Anastasiades, P. (2009). Interactive Videoconferencing and

Anastasiades, P. (2006). Interactive Videoconferencing in K-9

Collaborative Distance Learning for K-12 Students

Elementary Schools in Greece and Cyprus. . Proceedings of the Diverse 2006, 6th International

Conference on Video and Videoconferencing in

Technology, 14 (2), 88.

Publishers, Inc

- Creswell, J. W., S. Trout and J. E. Barbuto (2004). A decade of mixed methods writings: A retrospective. Retrieved 7,2009 October from http://www.aom.pace.edu/rmd/
- and Teachers: Theory and Practice NY: Nova Science Currant, N. & Whitfield, R. (2007) Students aren't prepared for web 2.0 learning, are they? [presentation] Association for Learning Technology Conference
- Education: "ODUSSEAS 2000-2004" a case study in Currant, N; Currant, R; Whitfield, R; Hartley, P (2008) Defining generation y: towards a new digital TYPOLOGY OF LEARNERS in (eds) Lawton et al

Proceedings of the 3 rd European First Year Experience Network Conference, Wolverhampton

- Guri-Rosenblit, S. (1999). Distance and campus universities: Gunawardena, C. N., & Zittle, F. J. (1997). Social presence as a Tensions and contradictions. Kidlington: Elsevier Science.
- Glenn, S., & Gray, L. (2008). The writer's harbrace handbook, brief, . N.York: Thomson Wadsworth, .
- Kemmis, Initials. (2006). 'participatory action research and the public sphere'. Educational Action Research, 14(4), Retrieved from http://dx.doi.org/10.1080/09650790600975593 doi: 10.1080/09650790600975593
- Kemmis, S. (2005). Knowing practice: Searching for saliences. Pedagogy, Culture & Society, 13(3),391-426.
- Freitas, F., Myers, S., & Avtgis, T. (1998). Student Perceptions of Instructor Immediacy in Conventional and Distributed Learning Classrooms. Communication Education 47(4), 366-72.
- de Freitas, S. & Roberts, G. (2004). Does distance e-learning Knipe, D., & Lee, M. (2002). The quality of teaching and work? A comparison between distance and face-to-face learners using e-learning materials. Association of Learning Technology Journal, 11, 2, 69–87...
- Finn, K. E., Sellen, A. J., & Wilbur, S. B. (Eds.). (1997). Video-mediated communication. Mahwah. NJ: Lawrence Erlbaum Associates.
- Carville, S., & Mitchell, D. R. (2001). It's a Bit Like Star Trek: The effectiveness of video conferencing. Innovations in Education and Training International, 37(1), 42-49. Lewental, M., & Kress, M. (2005). Making global connections:
- Garrison, D. R., Anderson, T., & Archer, W. (2000). Critical inquiry in a text-based environment: Computer conferencing in higher education. The Internet and Higher Education, 2(2-3), 87-105.
- Ghaye T., Melander-Wikman, A., Kisare, M., Chambers, P., Ulrika, B., Kostenius, C., Lillyman, S.(2008) Participatory and appreciative action and reflection (PAAR) democratizing reflective practices. Reflective Lombard, M., & Ditton, T. (1997). At the heart of it all: The Practice 9(4), 361-398
- Gillies, D.(2008) Student perspectives on videoconferencing in teacher education at a Distance, Distance Education 29:1, 107-118 DOI: 10.1080/01587910802004878
- Greene, J. C., Caracelli, V. J., & Graham, W. F. (1989). McConnell, D. (2006) E-Learning Groups and Communities. Toward a conceptual framework for mixed-method evaluation designs. Educational Evaluation and Policy Analysis, 11, 255-274
- Gürer, D., Kozma, R., & Millán, E. (1999). Impact of shared applications and implications for the design of collaborative learning environments. In S. Lajoie (Ed.), Proceedings for the ninth world conference on

artificial intelligence in education (AI-ED99, pp. 439-445). Amsterdam: IOS Press.

- predictor of satisfaction within acomputer-mediated conferencing environment. The American Journal of Distance Education, 11(3), 8-26.
- Haga, H. & Kaneda, S. (2005). A usability survey of a contents-based video retrieval system by combining digital video and an electronic bulletin board. Internet and Higher Education, 8, pp.251-262
- Haefner, J. (2000). Opinion: The Importance of Being Synchronous. Academic. Writing. Retrieved January 10. 2006, from the WorldWide Web:http://wac.colostate.edu/aw/teaching/haefner2000 .htm
- Hrastinski, S., (2008), Asynchronous and Synchronous E-Learning EDUCAUSE Quarterly, vol. 31, no. 4(October–December).
- learning via videoconferencing. British Journal of Educational Technology, 33(3), 301–311.
- Kemmis, Initials. (2006). 'participatory action research and the public sphere'. Educational Action Research, 14(4), Retrieved from http://dx.doi.org/10.1080/09650790600975593 doi: 10.1080/09650790600975593
- The virtual classroom project. Paperpresented at the 38th Annual Association of Small Computer Users in Education (ASCUE)Conference, Myrtle Beach, SC. Retrieved March 15, 2007, from ERIC Document ReproductionService No. ED490160.
- Rhetoric: 2010. In Merriam-Webster Online 2010 Dictionary.Retrieved October 13, from http://www.merriam-webster.com/dictionary/rhetoric
- concept of presence. Journal of Computer Mediated-Communication [On-line], 3 (2). Available: http://www.ascusc.org/jcmc/vol3/issue2/lombard.html
- Fung, A. (2006). Empowered participation: Reinventing urban democracy. Princeton, NJ: Princeton University Press.
- Maidenhead, Open University Press.
- Nardi, B. (2005). Beyond bandwidth: Dimensions of connection in interpersonal interaction. The Journal of computer supported cooperative work 14: 91-130.
- Steeples, C, Jones CR & Goodyear, P (2002) Beyond elearning: the future for networked learning. In C

Steeples & C Jones (Eds) Networked learning: perspectives and issues. London: Springer

- Suthers, D. (2001). Collaborative representations: Supporting face to face and online knowledge-building discourse. Proceedings of the 34th Hawai'i International Conference on the System Sciences (HICSS-34), January 3-6, 2001, Maui, Hawai'i: Institute of Zeichner, K. (2001). Educational Action Research. In P. Electrical and Electronics Engineers.
- Thatchenkery, T., & Metzker, C. (2006). Appreciative intelligence: Seeing the mighty oak in the acorn. San Francisco: Berrett-Koehler.
- K., & Scott, P. Tomadaki, Е., Quick, (2008).Videoconferencing in Open Learning. Journal Of Interactive Media In Education, 2008(1). Retrieved November 3. 2010. from http://jime.open.ac.uk/article/2008-8/341
- Reed, J., & Woodruff, M. (1995). An introduction to using videoconferencing technology for teaching, The Distance Educator Newsletter, Fall, Scott, T D and Pitcher, N (1997) SUMSMAN: Scottish, from: http://www.kn.pacbell.com/wired/vidconf/Using.html
- Ryan, S., Scott, B., Freeman, H., & Patel, D. (2000). The virtual university. London: Kogan Page.
- Saw, ,K.G, Majid, O., Abdul Ghani, N., Atan, H., Idrus, R. M., Rahman, Z. A., Tan, K. E. (2007). The videoconferencing learning environment: technology, interaction and learning intersect. British Journal of Educational Technology, 39(3), Retrieved from http://dx.doi.org/10.1111/j.1467-8535.2007.00736.x doi: .doi.org/10.1111/j.1467-8535.2007.00736.x DO -10.1111/j.1467-8535.2007.00736.x
- Short, J., Williams, E. & Christie, B. (1976). The social psychology of telecommunications. London: John Wiley & Sons.
- Strijbos J.W., Martens R.L. and Jochems W.M.G. (2003). Designing for Interaction: Six Steps to Computersupported Group-based Learning. Computers and Education
- Smyth, R. (2005). Broadband videoconferencing as a tool for learner-centred distance learning in highereducation. British Journal of Educational Technology, 36(5), 805-820.
- Thomson, A., & Gutmann, D. (2004). Why deliberative democracy. Retrieved May 8, 2008, fromhttp://press.princeton.edu/chapters/s7869.pdf.
- Townsend, A.M., Hendrickson, A.R. and DeMarie, S.M. (2002). Meeting the Virtual Work Imperative. Communications of the Association for Computing *Machinery*, 45(1)

Sedgwick, M. & Spiers, J. (2009). The use of videoconferencing as a medium for the qualitative interview. International Journal of Qualitative Methods, 8(1). Available from https://ejournals.library.ualberta.ca/index.php/IJQM/in dex

Reason & H. Bradbury(Eds.), Handbook of action Research: Participative inquiry and practice (pp.273-282). London: SAGE publications.