

Emotions in virtual collaborative creative writing processes

Kristiina Kumpulainen and Anna Mikkola

University of Helsinki, Department of Teacher Education

Emotions play a pivotal role in computer-supported creative collaborative learning practices in the classroom and beyond (Moran & Steiner, 2004; Seddon, 2004; Vass & Littleton, 2010). Drawing on the sociocultural perspective, this study examines the ways in which emotions and emotion awareness, as constructed into being in social activities, mediate collaborative creative writing processes and produced artifacts.

In this study, we view learning, affect and creativity as interrelated practices (Craft, 2005; Eckhoff & Urbach, 2008; Jeffrey, 2006). Creative collaborative interaction and learning requires mediated engagement with cultural artefacts in social contexts (Vygotsky, 1978). Creativity involves moving beyond what exists now, using resources from the past and present to co-create multiple alternative futures (Moran, 2010). For Vygotsky (1978), creativity is closely linked to meaning making: it involves the externalization of personal senses of cultural meanings. Meanings including emotional experiences are not transmitted or transferred between minds, but rather are constructed in the processes of dialogue and engagement (Moran, 2010; Moran & John-Steiner, 2003).

In our research we ask, how do students display their emotions in virtual interactions during collaborative creative writing and how such a display mediates the quality of collaborative interaction and joint work? In addition, we ask how do the students use the chat facility of the collaborative writing service to express their emotions, which types of emotional cues can we trace from students' chat interactions during collaborative composing, and how do students' emotionally charged interactions support and/or challenge computer-mediated creative collaborative processes?

Study

The empirical data of this study derive from fifth- and sixth-grade (ages 11 to 12) students who worked with personal laptops, wireless Internet access, and a collaborative writing service *VisciPad* at school and outside to collaborate on creating a school musical script. The students worked in 10 small teams of two to three students, with each team writing one part of the script.

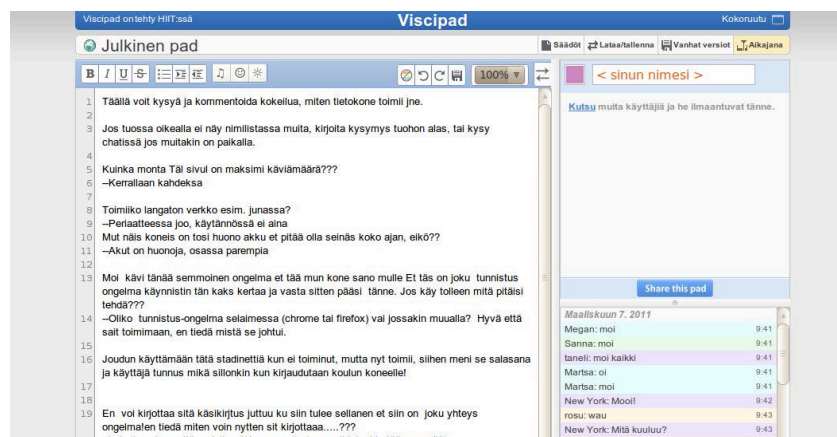


Figure 1. Viscipad service.

VisciPad (www.viscipad.hiit.fi) is a web application based on open source software, EtherPad (Vähäkangas & Pyykkö, 2012). Viscipad enables users to simultaneously edit the same text document,

i.e., a pad or page in real-time. The pad can be shared and accessed from any computer through its' URL which is the service's URL suffixed by the pad's name. The service's page layout (see Figure 1 above) consists of four main elements. The writing area that occupies most of the page is on the left side. Above, stretching from side to side is a toolbar for editing, and exporting text, as well as accessing the page. In addition, the right side displays the list of students who are currently on line, and working on the text. Side-by-side with the writing area is the chat. Each message is accompanied by the student's name, who sent the message, along with the time when the message was sent. A full discussion history is shown, with the most recent messages always visible.

Data collection

The main data for this study are the students' chat logs and contents, as well as the revision history of the scripts that are automatically saved on a server as a by-product of VisciPad's normal operation. In addition, the data consist of video-recordings of school-based collaborative working processes and questionnaire data on the students' experiences of their collaborative practices.

Data

Our analyses of students' emotions in virtual collaborative creative writing are informed by interactional ethnography (Castanheira, Green, & Yager, 2009) and socioculturally framed discourse analysis (Kumpulainen & Cesar, 2009; Mercer, Littleton, & Wegerif, 2009). The analyses of the data are currently under way. Table 1 below illuminates students' chat interactions during computer-supported creative collaborative writing.

Table 1. The nature of students' chat activity.

<p>March 4 1: Mooi (11:46) 2: Hahaa.....korjasin yhden kirjoitusvirheen!!..D (16:18) 3: just jono ei se haittaa (20:03) 3: siis joo (20:03) 4: moi löysin tänne joten jätin teksti jäljen:)) (22:11) March 5 3: :) (11:37) 5: moi (12:50) March 6 6: tarviin ideoita! (12:14)</p>	<p>March 4 1: Hiii (11:46) 2: Hahaa....I corrected a spelling mistake!!..D (16:18) 3: It is just a queue its ok (20:03) 3: yes ok (20:03) 4: hi I found my way here so I left a footprint:)) (22:11) March 5 3: :) (11:37) 5: hi (12:50) March 6 6: I need ideas! (12:14)</p>
--	--

Conclusions

In sum, our research work is aimed at contributing to existing research knowledge on the role of emotions and emotional awareness in computer-supported collaborative creative writing. Theoretically we are interested to develop a more nuanced understanding of emotions in virtual interaction, in virtual collaboration and in virtual creative writing. Methodologically, we aim to develop appropriate analysis methods and tools to capture emotions in virtual interaction.

We hope that this workshop will advance our on-going research work at theoretical, methodological and empirical levels. We also hope that our socioculturally informed approach to conceptualizing emotions in computer-supported collaborative learning together with our present methodological orientation will enrich the perspectives discussed and elaborated in the workshop.

References

- Castanheira, M.L., Green, J.L., & Yager, E. (2009). Investigating inclusive practices: an interactional ethnographic approach. In K. Kumpulainen, C.E. Hmelo-Silver & M. César (Eds.) *Investigating classroom interaction. Methodologies in action*. Rotterdam: Sense Publishers.
- Craft, A. (2005). *Creativity in schools. Tensions and dilemmas*. Abingdon: Routledge.
- Eckhoff, A. & Urbach, J. (2008). Understanding imaginative thinking during childhood: sociocultural conceptions of creativity and imaginative thought. *Early Childhood Education Journal*, 36: 179-185.
- Jeffrey, B. (2006). Creative teaching and learning: towards a common discourse and practice. *Cambridge Journal of Education*, 36, no. 3: 399-414.
- Kumpulainen, K. & César, M. (2009). In K. Kumpulainen, C.E. Hmelo-Silver & M. César (Eds.) *Investigating classroom interaction. Methodologies in action*. Rotterdam: Sense Publishers.
- Mercer, N., Littleton, K., & Wegerif, R. (2009). Methods for studying the processes of interactions and collaborative activity in computer-based educational activities. In K. Kumpulainen, C.E. Hmelo-Silver & M. César (Eds.) *Investigating classroom interaction. Methodologies in action*.
- Moran, S. (2010). Creativity in school. In K. Littleton, C. Wood & J.K. Staarman (Eds.) *International handbook of psychology in education*. United Kingdom: Emerald.
- Moran, S. & John-Steiner, V. (2003). Creativity in the making: Vygotsky's contribution to the dialectic of creativity and development. In K. Sawyer, V. John-Steiner, S. Moran R.J., Sternberg, D.H. Feldman, J. Nakamura & M. Csikszentmihalyi (Eds.) *Creativity and development*. New York: Oxford University Press.
- Moran, S. & John-Steiner, V. (2004). How collaboration in creative work impacts identity and motivation. In D. Miell & K. Littleton (Eds.) *Collaborative creativity. Contemporary perspectives*. London: Fabooks.
- Seddon, F. (2009). Empathetic creativity: The product of empathetic attunement. In D. Miell & K. Littleton (Eds.) *Collaborative creativity. Contemporary perspectives*. London: Fabooks.
- Vass, E. & Littleton, K. (2010). Peer collaboration and learning. In K. Littleton, C. Wood & J.K. Staarman (Eds.) *International handbook of psychology in education*. United Kingdom: Emerald.
- Vygotsky, L. S. (1978). *Mind in society: the development of higher mental processes* (eds. M. Cole, V. John-Steiner, and E. Souberman). Cambridge: Harvard University Press.
- Vähäkangas, T. & Pyykkö, J. (2012, January). *VisciPad: Peeking into a collaborative creative writing project in elementary schools*. Proceedings of the 10th International Conference on Creating, Connecting and Collaborating through Computing (C5-12). University of Southern California, CA.