ILL record updated to IN PROCESS
Record 13 of 24

ILL pe

CAN YOU SUPPLY? YES NO COND FUTUREDATE

:ILL: 724307
 :Borrower: UMS
 :ReqDate: 20040719
 :NeedBefore: 20040815
:Status: IN PROCESS 20040719
:RecDate: :RenewalReq: :NewDueDate:
:OCLC: 1773746
 :Source: webZAP
 :DueDate: :NewDueDate:
:Lender: *IGB,CTU,EYE,EYR,ILU
:CALLNO: *Lender's OCLC LDR: 35-1989-
:AUTHOR: :
:TITLE: Alberta journal of educational research.
:IMPRINT: Edmonton, Faculty of Education, University of Alberta.
:ARTICLE: Fahy, P. J. et al "the development and testing of a tool for analysis of computer mediated conferencing transcripts" 
:VOL: 46 
 :NO: 1 
 :DATE: 2000 SPRING 
 :PAGES: 85-88
:VERIFIED: OCLC ISSN: 0002-4805 [Format: Serial]
:PATRON: Wilmarth, Paul

:SHIP TO: ILL - Univ. of Mo-St. Louis
 :T. Jefferson Library 
 :One University Blvd.
 :St. Louis, MO 63121-4499

:BILL TO: FEIN 43-600-3859, WE WILL ALSO ACCEPT INVOICES UP TO $30.00.
:SHIP VIA: ARIEL-ARTS/1st CLASS :MAXCOST: 30.00FM :COPYRT COMPLIANCE: CCG
: :FAX: (314)-516-5853 ARIEL NEW NUMBER (134.124.150.65) MMLA A & B, LVIS.
 :E-MAIL: tjill@sumsl.edu, can accept e-mail attachments.
 :BORROWING NOTES: THANKS.
 :LENDING CHARGES: :SHIPPED: :SHIP INSURANCE:
 :LENDING RESTRICTIONS:
 :LENDING NOTES:
 :RETURN TO:
 :RETURN VIA:
Research Notes: Guidelines

a means for educational researchers to present their research-in-progress. Because it is effective in supporting or augmenting other research, it is a useful means for reporting on or discussing findings of particular interest but

on the author(s)' or authors' research-in-progress and should feature work that has not been previously published. This current work should be of particular interest and should feature work that has not been previously published. The focus of the Note could be either a view of an ongoing line of inquiry where the author(s) is a primary investigator or an overview of the literature. The Note could be either a view of an ongoing line of inquiry where the author(s) is a primary investigator or an overview of the literature. The Note could be either a view of an ongoing line of inquiry where the author(s) is a primary investigator or an overview of the literature.

The Alberta Journal of Educational Research

Patrick J. Fahy, Gail Crawford, Mohamed Ally, Peter Cookson, Verna Keller and Frank Prosser
Athabasca University

The Development and Testing of a Tool for Analysis of Computer Mediated Conferencing Transcripts

Background

Interaction by means of computer-mediated communications (CMC) is widely discussed in the distance education literature (Abrami & Bures, 1996; Anand & Haughey, 1997; Bates, 1995; Dede, 1996; Jonassen, 1998; Maier, Barnett, Warner & Brunner, 1996; Nixon & Salmon, 1996). However, much of the literature is more arbitrarily prescriptive or merely anecdotal than empirical (Gunawardena, Lowe, & Anderson, 1997). It appeared that, despite several possible candidates, a notable barrier to more rigorous research was the lack of a recognized CMC analysis tool.

Process

Beginning in late 1998 a team of faculty and students at Athabasca University’s Master of Distance Education (MDE) program reviewed the literature on CMC analysis, comprising some 224 publications, seeking models or tools that might provide reliable analysis of CMC interactions. A total of 10 possible models or analytic approaches were identified (Fahy et al., 1999). A comparative review of the models was then conducted by the team, and two models (Bullen, 1997; Zhu, 1996) were chosen for further study based on their perceived (a) ease of use, (b) reliability, (c) validity, (d) theoretical support, and (e) cross-discipline utility.

Features of the Analytic Models Selected for Further Research

The Bullen and Zhu instruments focus on different aspects of CMC interaction. Zhu’s (1996) work, based on Vygotsky’s theory of proximal development, focuses on social negotiation, collaborative sense-making, and mentoring as ways of

Patrick J. Fahy (patt@athabascau.ca) is an associate professor, Master of Distance Education (MDE) program, Athabasca University, 1 University Drive, Athabasca, AB, T9S 3A3, tel: 780-675-6216 or fax: 780-675-6170.
Gail Crawford (gail@athabascau.ca) is an associate professor and acting director, MDE program, Athabasca University, 1 University Drive, Athabasca, AB, T9S 3A3, tel: 780-675-6238.
Mohamed Ally (mohamed@athabascau.ca) is an associate professor, MDE program, Athabasca University, 1 University Drive, Athabasca, AB, T9S 3A3, tel: 780-675-6238.
Peter Cookson (peterc@athabascau.ca) is an associate Vice-President, Academic, Athabasca University, 1 University Drive, Athabasca, AB, T9S 3A3, tel: 780-675-6262.
Verna Keller (verna@athabascau.ca) is a graduate of the MDE program. She can be reached at tel: 519-888-1211 ext. 3132.
Frank Prosser (frankp@sfu.ca) is a student in the MDE program, a full time primary teacher and is currently part of a design team for both an online high school course (BC First Nations 12) and multimedia resources. He can be reached at Box 491, Erinving, BC, V0R 1V0, or tel: 250-248-0394.
improving participants' problem-solving capabilities. The model classifies postings as vertical or horizontal:

- **Vertical interactions** seek an answer from a more capable or better informed member rather than contributing to or constructing knowledge collaboratively.
- **Horizontal interactions** assume there is no authoritative or correct answer, and members must therefore interact to construct an acceptable compromise answer (p. 824).

Zhu applied her instrument to conference transcripts and concluded there were two likely processes for knowledge construction in an electronic communications environment:

- **Construction of knowledge** by a group influenced, motivated, and facilitated by discussion and interaction among peers.
- **Simple assimilation of information proposed by others**, perhaps with some personal editing or adaptation, but without significant interpersonal interaction (p. 840).

Bullen's (1997) CMC analysis tool focuses on the relation between critical thinking and participation. The classification categories are:

1. **Seeking clarification**: attempting to appraise and understand the exact nature of the problem, issue or dilemma, including acknowledging and attempting to understand different points of view on an issue.
2. **Assessing evidence**: judging the credibility of sources of information and observations and the quality of the data offered as evidence.
3. **Making and judging inferences**: assessing the soundness of inductive and deductive inferences and value judgments made in making decisions.
4. **Using appropriate strategies and tactics**: using strategies as appropriate guides in critical thinking.

The instrument was developed and tested on sample transcripts from a graduate course in distance education, which were analyzed by two researchers independently. The researchers reported high levels of agreement (approximately 90%) after analyzing two sets of transcripts.

Further Modification and Pilot Testing of the Zhu Instrument
Although both the Bullen and the Zhu models produced promising results, Zhu's (1996) model was chosen by the research team for further development. Changes to the Zhu analytic tool resulted in a new tool called the "transcript analysis tool" (or MDE TAT) by the Athabasca University research team. The MDE TAT uses the following classification categories:

1. **Vertical questioning**: Emphasis is on the acquisition of data or information, with the question addressed to the person viewed as most likely to possess the "correct" answer.
2. **Horizontal questioning**: As in Zhu's formulation, the purpose is to initiate or invite a dialogue. Horizontal questions anticipate collaboration and discussion to produce an acceptable answer or compromise solution or to increase consensus. No "correct" answer is assumed necessarily to exist.
3. **Statements**: These contain no self-revelation and usually do not invite dialogue. The speaker, like a lecturer, provides information or correction to an audience assumed to be uninformed.

4. **Reflections**: The speaker reveals his or her reasoning processes, misgivings, and doubts into his or her personal, individual, and collective actions. Reflective responses are empathetic, solicit support, and encourage and other "accepting" responses.
5. **Scaffolding**: The speaker invites others to include those that call on or name others' shared group experiences.

The MDE TAT was tested in a graduate teaching seminar, where reliability between the two raters was high. The tool was modified slightly and tested in new sample transcripts. The third researcher independently analyzed another transcript among the three researchers of 84%. Fit was analyzed to determine researchers concluded that the tool was easy; third set of transcript was 70% (Fahy et al.

Conclusions

We continue to investigate and apply this model in the group's community of work (Keller, 1999). Future efforts will involve using this model to analyze more lengthy questions we have posed previously:

- What types of interactions are associated with participation and satisfaction as reports?
- How does moderator conference behavior affect participants?
ing capabilities. The model classifies a more capable or better informed or constructing knowledge collaborat-
no authoritative or correct answer, to construct an acceptable com-
ence transcripts and concluded there construction in an electronic commun-
influenced, motivated, and facilitated peers, possibly with some per-
used by others, perhaps with some per-
excuses on the relation between critical ac-
ations categories are: praise and understand the exact na-
a, including acknowledging and at-
tents of view on an issue.
ility of sources of information and ob-
offered as evidence.
the soundness of inductive and de-
ts used in making decisions.
using strategies as appropriate.

I tested on sample transcripts from a
which were analyzed by two re-
ers reported high levels of agreement.
sets of transcripts.

Instrument
models produced promising results, re-
search team for further development.
ed in a new tool called the “transcript
ubacsa University research team. The on categories:
acquisition of data or information, person viewed as most likely to pos-
ulation, the purpose is to initiate or
anticipate collaboration and discus-
s or compromise solution or to in-
ner is assumed necessarily to exist.
lation and usually do not invite;
provides information or correction

to an audience assumed to be uninformed or in error. A “correct” answer is implied, and the speaker believes he or she possesses it.
4. Reflections: The speaker reveals his or her internal conflicts, values, beliefs, reasoning processes, misgivings, and doubts and provides other insights into his or her personal, individual, and usually invisible thinking processes. In reflections the speaker assumes listeners are interested in these personal revelations, are empathetic, and will respond with acceptance and support. Replies in kind are welcome, as are horizontal questions, scaffolding, and other “accepting,” responses.
5. Scaffolding: The speaker invites others to comment. Scaffolding comments include those that call on or name others, refer to others’ views, or address shared group experiences.

The MDE TAT was tested in a graduate course in distance education, where transcripts were analyzed by two researchers independently. The interrater reliability between the two raters was high (94%). Following this first application, the tool was modified slightly and tested again by a third researcher on a new sample transcript. The third researcher and the two original researchers independently analyzed another transcript, with an interrater reliability among the three researchers of 84%. Finally, after further revisions, a third transcript was analyzed to determine ease of use and reliability. The researchers concluded that the tool was easy to learn to use, and reliability for the third set of transcript was 70% (Fahy et al., 1999).

Conclusion
We continue to investigate and apply the MDE TAT. (One of the student members of the group has recently completed a thesis, in part based on this work; Keller, 1999). Future efforts will focus on making the tool more reliable and using it to analyze more lengthy and complex transcripts. Among the questions we have posed for continuing investigation are:
• What types of interactions are associated with greater or lesser levels of participation and satisfaction as reported by participants?
• How does moderator conference behavior affect participants?
• How does participant interaction affect the conferencing behavior of other participants?

References


The Alberta Journal of Educational Research

Book Reviews


Reviewed by Jim Paul
University of Calgary

The Krieger Publishing Web site (www.kriegerpub.com) describes Crosscurrents in Education as a text that makes the insights of critical theory and practice visible to educators who work beyond the classroom. Critical pedagogy as described by the text fulfills its ad

In the case of Critical Crosscurrents it is

Collins' instructive message is clear: in the context of a postmodern thought and practices as they pertain to education, the need for change and social empowerment is evident. The text provides potential for the world's disadvantaged opportunities for social justice and the resources for the oppressed. Critical theory framing opportunities for individual empowerment through community solidarity and an ever-evolving socially just struggle.

Jim Paul is an associate professor in the Faculty of Education, University of Calgary.