

Educationally Valuable Talk: A New Concept for Determining the Quality of Online Conversations

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Abstract

This paper is about conversations and quality of talk in online discussions. Derived from the tenets of constructivist learning as well as the notion of “exploratory talk”, it characterizes two distinct types of talk: educationally valuable talk (EVT) and educationally less valuable talk (ELVT). The potential of each talk type for collaborative knowledge building is discussed and teaching implications are considered.

Keywords: Quality talk, distance education, online discussions, online conversations, online learning, knowledge building.

Introduction

Given the demand for online learning, more and more institutions of higher education have embraced online instructional programs especially for students who are unable to take advantage of traditional classroom settings due to time and distance constraints. This explosion in online learning has brought immediate attention to the issues of instructional quality in online classes (Carr-Chellman & Duchastel, 2000; Weiss, Knowlton, & Speck, 2000; Ko & Rossen, 2004; Pelz, 2004; Keeton, 2004). Apart from issues of instructional quality, the current issue haunting online education is the quality of conversations that take place in online discussion threads. Although there is a growing body of research on the quality of students' electronic posts and depth of cognitive and meta-cognitive processing (Wickersham & Dooley, 2006; Jeong, 2003; Gilbert & Dabbagh, 2005; Hara, Bonk, & Angeli, 2000; Garrison, Anderson, & Archer, 2001), little mention has been made in the online teaching and learning literature regarding what protocols and criteria should guide online discussions on meaningful discourse (Gilbert & Dabbagh, 2005).

It is productive and generative conversations that hold the key to collective knowledge building (Vygotsky, 1962). However, quite often, in online classes, especially those with minimum posting requirements, most contributions are not sufficient to make such knowledge building possible because they simply contain unrelated anecdotes, brief agree/disagree statements, or are completely off-topic. What constitutes productive and generative conversations in online discussions and how such interactions can be orchestrated to nurture epistemic and discursive practices still remain open questions. This paper sheds new light on these questions by providing theoretical as well as practical information for online instructors to focus and refine classroom conversations so that they progress beyond information sharing to collective knowledge building. More specifically, this paper aims to establish a new framework/criteria for the content analysis of students' electronic posts that will perhaps guide online discussions on meaningful discourse and provide an entry point for other work in this area.

The role of dialogue in human development and learning: Vygotsky's socio-cultural theory of learning

The conceptual underpinnings for the importance of dialogue in human development and learning are derived from the works of Lev Vygotsky, a Russian psychologist of the 1930's whose notions about

psychology of learning have influenced a wide range of educational theories. The major theme surrounding Vygotsky's work is that knowledge is socially constructed. Based on this assumption, his socio-cultural theory of learning proposes that knowledge building is created between/among people in their collaborative meaning-making through dialogue. Viewed from this perspective, dialogue occurring in a learning situation is considered to involve both externalization and internalization processes through which meanings constructed between people in the inter-mental (social) plane are taken in, transformed, and turned into personal meaning-making systems by an individual.

Another theme common to Vygotsky's work is that all social and psychological processes are shaped or mediated by symbolic means/tools which include, but are not limited to, "mnemonic devices, algebraic symbols, diagrams and graphs, and, most importantly, language" (Lantolf 1994, 418). In socio-cultural theory of learning, Vygotsky's fundamental theoretical insight rests on the premise that language plays a key role in the development of higher mental functions and learning takes place when individuals engage in exploratory transactions through this effective tool. Viewed from this perspective, individual understandings and intellectual development are created and enhanced through a person's externalization and internalization of language.

Mercer's notion of 'exploratory talk'

As discussed above, dialogue is believed to play a key role in constructivist traditions of learning. The overriding question then becomes: "are all linguistic transactions that take place in educational settings concerned with knowledge building?"

In a study that investigated the nature and quality of primary school children's collective talk at the computer, Mercer (1994) found that some exchanges taking place in learning environments are nothing more than mere interactions which are not sufficient to make construction or co-construction possible. Based on these findings, Mercer (1994) came up with a taxonomy of three types of non-overlapping categories. These categories, as presented by Mercer (1994, p. 27), were as follows:

- *Disputational talk*, whereby speakers challenge other speakers' views, but without attempting to justify their challenge by building on previous utterances or offering new information.
- *Cumulative talk*, whereby speakers contribute to discussion by taking up and continuing a previous speaker's utterance, without explicit comment.
- *Exploratory talk*, whereby hypotheses are proposed, objections are made and justified, and new relevant information is offered.

Grounded in Vygotsky's socio-cultural theory of learning, Mercer's (1994) theoretical insight rests on the premise that individuals learn better when their current view of knowledge is challenged, reformed, and elaborated through interaction with others. Based on this assumption, he considers "exploratory talk" as the educationally most relevant type of talk with the greatest potential to make construction of knowledge possible.

Admittedly, judging any one kind of talk as a better form of communication than others is polemical. However, as Mercer's taxonomy suggests, there are some talk types that are educationally more valuable, and therefore, more desirable than others due to their potential to nurture collective knowledge building. And although not referring to online environments, Mercer's notion of "exploratory talk" offers insights into what type of interactions have this learning potential that other types of talk do not share.

The role of communications medium in constructivist learning: Face-to-face vs. threaded discussions

Before moving into a discussion on the characteristics of talk conducive to collaborative knowledge building in online threaded discussions, it seems useful to start with the characteristics of electronic discourse.

The difference between face-to-face and threaded discussions lies in the nature of the communications medium used to conduct linguistic transactions. In the context of face to face discussions, facts, concepts, and theories are reshaped into negotiated and personalized meanings through oral speech, whereas in threaded discussions, such practices rest on text-based communication only.

Although non-verbal cues (such as body postures, movements, facial expressions, tone of voice, etc.) and physical proximity are important aspects of face-to-face interactions that facilitate discussing, negotiating, and exchanging ideas between/among individuals, the tendency of oral speech to be fast-paced, spontaneous, and fleeting may, at times, create limited opportunities for knowledge building.

In contrast, while text-based electronic discourse is devoid of non-verbal and paralinguistic cues, the removal of time and space restrictions in such discourse provides better opportunities for reflective thinking that may not be possible in time-dependent spoken conversations (Salmon, 2002 and Meyer, 2003). For example, according to Swan and Shih (2005), reflecting on their writing before posting it creates “a certain mindfulness among students and a culture of reflection in an online course” (p.116). In addition, the sequential and recorded qualities of threaded electronic discourse and its particular demands, such as exactness, coherent organization of thought, clear, and authentic expression, have powerful affordances for collective knowledge building.

The aforementioned characteristics of text-based communication logically lead one to the consistency between threaded discussions and Vygotsky’s socio-cultural view of knowledge construction. However, there is need for awareness that text-based communication can not always create the optimal situations for meaningful discourse to take place. In the absence of this awareness, as Larreamendy & Joerns (2006) caution, “threaded discussions may become little more than erratic exchanges where the frequency and length of participation are taken as reliable proxies for the quality of interaction as a whole” (p. 591). The overriding question then becomes: what are the characteristics of effective transactions among learners that are most conducive to collaborative knowledge building in online threaded discussions? The following sections will attempt to answer this question.

Threaded discussions and educationally valuable talk (EVT)

Influenced by Vygotsky’s socio-cultural theory of learning and Mercer’s concept of exploratory talk, *educationally valuable talk (EVT)* is the term the author suggests to identify a particular interactional pattern in online discussion threads characterized as dialogic exchanges whereby participants collaboratively display constructive, and at times, critical engagement with the ideas or key concepts that make up the topic of an online discussion, and build knowledge through reasoning, articulation, creativity, and reflection. Table 1 illustrates the indicators that identify educationally valuable talk (EVT).

Overall, educationally valuable talk (EVT) is an evolving construct and it should not be considered as a teaching technique or pedagogical strategy. Instead, it attempts to shed new light on the knowledge building process and draws attention to key aspects of the learning experience that have been overlooked. All in all, at the core of this paper, the author’s position is that with the production of educationally valuable talk (EVT), social interactions in online discussions will progress beyond information sharing to knowledge construction, and transform into purposeful and constructive dialogues which move toward the improved understandings of all parties involved.

Educationally valuable talk (EVT): A too narrow viewpoint on knowledge building?

Admittedly, determining the educational value of a discourse is subjective. Talk that does not incorporate the indicators listed below may have potential educational significance, or talk that seems to have little or no educational value for some, may have significance for others. Therefore, it is noteworthy that since other types of talk may well be valuable for knowledge building, educationally valuable talk (EVT) may not be restricted to only the indicators listed in Table 1.

Table 1. Online Conversations and Educationally Valuable Talk (EVT) Indicators

Indicator	Acronym	Defined	Examples	Source
<i>Exploratory</i>	EPL	Recognition of some confusion/curiosity or perplexity as a result of a problem/issue arising out of an experience/course readings; posing a problem and enticing others to take a step deeper into it.	<p>"I wonder....."</p> <p>"I am not sure if what the author suggests....."</p> <p>"In the article X, the author said This brought up a few questions in my mind"</p>	<p>Mercer (1994);</p> <p>Garrison, Anderson & Archer (2001)</p>
<i>Invitational</i>	INVT	Inviting others to think together, to ponder, to engage by asking questions, requiring information, opinion or approval.	<p>"Jane says What do you think?"</p> <p>"Do you think?"</p> <p>"The authors suggest, no?"</p>	Uzuner & Mehta (2007)
<i>Argumentational</i>	ARG	Expressing reasoning (with analogies, causal, inductive and/or deductive reasoning etc) to trigger discussion	<p>"If teachers, then"</p> <p>"Teaching is like"</p> <p>"X is important because"</p>	Kumpulainen (1996)
<i>Critical</i>	CRT	Challenging or counter-challenging statements/ideas proposed by others OR playing devil's advocate	"I agree that However,"	Uzuner & Mehta (2007)
<i>Heuristic</i>	HE	Expressing discovery (similar to "A ha!" moments or expressions like "I find it!"); directing others' attention to a newly discovered idea.	"I did not know that there is a name for XXX. I think XXX isHas anyone experienced that too?"	Kumpulainen (1996)
<i>Reflective</i>	REF	Examination of past events, practices (why/how they happened) or understandings in relation to formal content	"I've noticed that I had a tendency to After reading X's article, I've learned not to"	Uzuner & Mehta (2007)
<i>Interpretive</i>	INTP	Interpretation of formal content through opinions that are supported by relevant examples, facts, or evidence.	"In my opinion X is Y is a good example of why"	Uzuner & Mehta (2007)

<i>Analytical</i>	ANL	Interpretation of content through the analysis, synthesis, and evaluation of others' understanding	"The original question was ... Joe said ... Mary said ... As for me"	Uzuner & Mehta (2007)
<i>Informative</i>	INF	Providing information from literature and relating it to course content/topic of discussion	"I read an article about X once and the author said You can find more information about this in ..."	Kumpulainen (1996)
<i>Explanatory</i>	EXPL	Chain of connected messages intended to explain/make clear OR statements serving to elaborate on the ideas suggested in previous posts	"I want to build on your comment that"	Uzuner & Mehta (2007)
<i>Implicative</i>	IMP	Assertions that call for action OR statements whereby participants formulate a proposal/decision about how to achieve a certain end based on the insights they gained from the course readings/discussions	"Teachers should / should not" "X must not be forced"	Uzuner & Mehta (2007)

*** These proposed EVT indicators are not in hierarchical order ***

Online conversations and educationally less valuable talk (ELVT)

In opposition to EVT, the author uses the term educationally less valuable talk (ELVT) to characterize talk that lacks substance in regards to critical and meaningful engagement with the formal content or ideas that are discussed in the posts of others in an online discussion. Table 2 illustrates the indicators that identify educationally less valuable talk (ELVT).

Some cautionary notes on ELVT

- To achieve knowledge building, each post has to be a significant addition to the learning community's pool of knowledge. Although not unimportant, *experiential* posts that include mere narratives or descriptions of personal experiences without reflection are not considered to be sufficient to meet this requirement. Therefore, such posts fall under the category of educationally less valuable talk.
- Although posts including *affective* indicators add only social presence to the discussions, they do not have any teaching value; therefore, they do not allow participants to build knowledge.
- Posts including *judgmental* and *reproductional* indicators without elaboration are also of lesser educational value because they are posts lacking substance in regards to critical and meaningful engagement with the formal content or the ideas put forward in the posts of others in an online discussion.
- As the name itself suggests, *miscellaneous* posts are interactions that are not concerned with knowledge building; therefore, they do not have any potential educational value.

Table 2. Online Conversations and Educationally Less Valuable Talk (ELVT) Indicators

Indicator	Acronym	Defined	Examples	Source
<i>Affective</i>	AF	Short posts that ONLY contain a statement of personal feelings (likes & dislikes)	"I never liked Math either"	Garrison, Anderson & Archer (2000)
	AA	Short posts that ONLY contain appraisal (praising & thanking someone)	"Thank you for offering your insights into"	
	ASP	Questions or comments that add social presence to the discussion but do not contribute new information.	"I have been to your country once and I visited X, Y, Z when I was there"	
<i>Judgmental</i>	JA	Short posts that ONLY contain brief statements of agreement without elaboration	"Yes, I agree with you"	Kumpulainen (1996)
	JDA	Short posts that ONLY contain brief statements of disagreement without elaboration.	"I do not think so"	
<i>Experiential</i>	EXP	Posts that only contain personal experiences, narratives, descriptions that are not followed by reflection	"I did the same thing when I was teaching X. "I did A, B, C. It was fun"	Kumpulainen (1996)
<i>Reproductional</i>	REP	Repeating/reproducing the ideas mentioned/proposed in the previous posts without elaboration	"You are right, X is " (followed by a sentence)	Kumpulainen (1996)
<i>Miscellaneous</i>	MIS	Opinions that seem to be off topic OR statements regarding technical problems/course logistics	"I am unable to open Jay's file..."	Uzuner & Mehta (2007)

Teaching Implications

Orchestrating quality conversations that progress beyond information sharing to collective knowledge building does not demand sophisticated skills on the part of the instructors. The following section provides practical information for online instructors to enable meaningful conversations in online discussions.

One way for instructors to improve the quality of interactions in online teaching and learning environments is to ensure teacher presence with effective modeling of educationally valuable talk (EVT).

Although modeling can create excellent opportunities for “noticing” (the process of learners noticing the gap between their written outcome and that of the instructor), it does not automatically encourage learners to produce educationally valuable talk in their postings. Therefore, in addition to modeling, in order to encourage online learners to use their language for reasoning, articulation, creativity, and reflection, it is important that attention be paid to helping learners improve their meta-discoursal awareness. This can be done in two ways. One way is implementing rubric-based assessments. This includes using the EVT indicators suggested in this paper as the criteria to analyze the content of student posts. The content analysis of each post can be based on manifestation of EVT and ELVT and grading can be done on a scale of 1 to 4, whereby 1 refers to “*the student could do much better when it comes to using EVT*”, and 4 refers to “*the student’s posting(s) exemplifies EVT 100%*”.

The following section provides an example of how rubric-based assessments can be conducted by online instructors with the EVT and ELVT indicators proposed in this paper.

Sample rubric-based assessment

Context: In this thread, two graduate students are discussing the public sharing of student writing with authentic audiences (distant and/or local) through the use of technology (such as emails, CMC, blogs, PPT etc).

RESPONSE by: Dennis Colfer (*pseudonym*) (02/22 08:09 PM)

Subject: The “uncanny” of web writing

Hi Mary,

In your response you mentioned that “writing on the web is public and people seem to enjoy being read by many other people.” As Jared suggested in response to your posting under Ben’s group, producerly pleasure is increased when students have opportunities to share their ideas with others. I think this is part of what Carrington (2005) was referring to when she discussed the “uncanny” nature of digital literacy. **[ANL]**

After reading several responses from some of the groups, I thought more about why individuals receive a significant amount of pleasure from sharing their digital texts with the web community. **[EPL]** According to Carrington (2005), self-publishing texts through the web is an “authentic purpose” that directly relates to the individual’s personal, work, or social lives (p. 476). **[INF]** This authentic purpose is a significant motivator and pleasure producer especially in teens and young adults who are developing their sense of identity. In addition, communication technologies such as the web allow individuals “a voice and the potential to influence others about issues they care about” (Carrington, 2005, p. 477). This gives individuals a sense of power in relation to self-expression, which as we learned from Ben’s group, is a contributor to producerly pleasure. **[INTP]**

Although sharing ideas with others via digital technology can be a pleasurable experience, I wonder if the opposite is true. It is possible that writing on the web could become an unpleasant experience, especially if the producer receives negative feedback from other individuals? What about individuals who abuse their power of self-expression to harm others? **[EPL]**

RESPONSE by: Eun Hee Cho (*pseudonym*) (02/25 07:26 PM)

Subject: irresponsible over the online

Dennis:

I totally agree with your idea. Although sharing ideas with others via digital technology can be a pleasurable experience, at the same time we should consider the opposite. **[JA]** As a matter of fact, e-texting is faster and more instant than p-texting, and sometimes we can write on the web anonymously. These characteristics of digital technology could make irresponsible users. If the writer is responsible for the negative feedback she/he wrote, there isn’t a big problem. However, in the opposite case, the writing could be the sword. It will be

irresponsible power to harm others. **[REP]**

Instructor's comments: The first student's posting is thoughtful and provocative and it exemplifies EVT 100% (Score: 4). However, The second student does not give justifications for her arguments and easily accepts the other student's judgments. Therefore, her post could do much better when it comes to using EVT (Score: 1).

*** *The codes/acronyms in bold stand for the EVT & ELVT indicators listed in Tables 1 & 2.*

Apart from rubric-based assessments, the use of consciousness-building activities, such as the one described below, early on in the semester is another way of helping learners improve their meta-discoursal awareness.

Type of assignment: Conversation Analysis

Level: Undergraduate/graduate

Materials:

- A PowerPoint presentation on the notions of EVT & ELVT
- EVT & ELVT indicators in MS Word form

Procedure: Introduce learners to these two constructs: educationally valuable talk (EVT) & educationally less valuable talk (ELVT). Once they read and discuss the conceptual underpinnings for each talk type, ask them to select and analyze a conversation/discussion thread of their choice that exemplifies educationally valuable talk. This sample exchange can come from any of the following places:

- *the earlier modules of the course*
- *another online course*
- *Internet sites where some form of tutoring or instruction is the objective (the subject matter is irrelevant)*
- *another source they may have*

The length of their selection (number of words, number of exchanges) is their decision. If, for example, they find an exchange extending across 5-6 posts exemplifying an aspect(s) of EVT, they should use those posts. If, however, they find a single section of a single post that exemplifies an aspect of EVT, then they should use it for their analysis. The next step involves asking the learners to analyze the selected exchange(s) by using the EVT and ELVT indicators suggested in this paper. In the end, have them post the extracted conversation and their analysis (not more than two paragraphs) to the class for comment. They may want to consider visually highlighting the portion or portions of the conversation that is the focus of their analysis.

The following section illustrates actual messages from an online discussion thread with information as to how the aforementioned analysis can be conducted.

Sample conversation analysis

Context: Based on the article titled "*Electronic Literacy as a Second Language*", two international students are responding to the following question: "Is learning to become e-literate like learning a new language for people who were not born into the Digital Age?"

The highlighted portions in bold make up the analysis and the codes/acronyms stand for the EVT & ELVT indicators listed in tables 1 & 2.

Student I

[...] it is definitely true E-literacy has its own importance, and I think it is new "culture" and new "style" in texts. **[Here, based on her personal opinions, the student is responding to the question above. She thinks e-literacy is important and considers it as a "new culture" but she does not actually clarify what she means by that – this part of the post does not exemplify EVT.]** Then, how do we consider E-literacy as a second language? **[Repetition of the question]** I fully understand its importance as a great tool for second language acquisition. **[This statement briefly indicates the student's agreement with the ideas suggested in the course reading. However, no further explanation is given – this part of the post does not exemplify EVT.]** However, in fact, I could not find any clear idea in the article to say E-literacy as a second language. **(EPL) [At this point, the student engages in educationally valuable talk. She recognizes some confusion/perplexity resulting from her interaction with the assigned article and engages in a critical analysis of it by questioning the link between the ideas presented in it and its title "E-literacy as a second language"]** As I addressed in my group discussion, I feel the process to get accustomed to using technology and the process to acquire a new language are different. For example, if one is exposed in e-text in a later age, s/he can get used to e-text once s/he acquires the skill to use electronic text. But, acquiring a language needs memorizing, interpreting and other intelligent factors. **(ARG/ INTP) [Here, she is offering her own opinion with an example. Her argument "I feel the process to get accustomed to using technology and the process to acquire a new language are different" is derived from comparative examples]** So, actually I am not sure from what we can consider E-literacy as a second language. **(EPL) [The student ends her post with some curiosity and confusion. Her last statement can be interpreted in two ways: 1) it implies that perhaps she thinks there is a better explanation for the question at hand; 2) with this statement, she takes on a facilitator's role enticing others to take a step deeper into the problem]**

Student II:

I think it is an interesting question. Is it true that people who are exposed to electronic equipment at a later age are all able to acquire e-literacy? Not necessarily. **(CRT) [Here student II is taking a critical approach towards the ideas suggested by student I in the previous post]** My mother-in-law, for example, can use Email fairly comfortably, but she cannot understand what a 'hyperlink' is or how to transfer photos from her digital camera to the desktop. Can she read e-text? Yes. But is she e-literate? Only partially. **(INTP) [To support her contention, she is drawing on a real life example]** It's just like the way we learn to speak a foreign language in a 'broken' way: people can learn to be acquainted with basic elements of using electronic and digital equipment, but they don't necessarily achieve the level of 'fluency.' In this sense, there is a parallel between acquiring e-literacy and learning a foreign language. **(ARG) [To further support her opinion, she introduces an analogy: "acquiring e-literacy is LIKE learning to speak a foreign language in a 'broken' way". She brings up the issue of "fluency" in her attempt to direct her peers' attention to the "parallel between acquiring e-literacy and learning a foreign language".]**

Commentary: This thread is a good example of a "high value" dialogic conversation whereby relevant information is made explicit with examples, analogies and inferences. The students make their reasoning explicit in their talk, and before coming to an agreement, they engage in exploratory transactions with language. In summary, student I uses her speech for the exploratory (EPL), argumentational (ARG) and interpretive (INTP) functions. And student II uses her speech for the critical (CRT), interpretive (INTP), and argumentational (ARG) functions. These are all features/indicators of educationally valuable talk (EVT).

Summary and conclusions

The focus of this paper has been on developing the conceptual framework to better understand, measure and improve the nature and quality of student posts in online discussions. It aims to establish criteria to analyze the content of student posts in online discussions and determine their educational value. It also describes two ways that can help learners improve their meta-discoursal awareness: rubric-based assessments and consciousness-building activities. The author invites others to use and refine the EVT & ELVT constructs and the suggested assessments and activities so that they better serve online instructors as well as online learning communities.

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