

Voices and Meaning Potentials in Asynchronous Dialogues

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The aim of this study is to examine and describe in what way student teachers use their own and others words meanings content in asynchronous dialogues as a collaborative learning activity in three web-based courses over a period of 60 weeks. The students' contributions to the course assignments, the group responses and the collaborative discussions were analysed and interpreted based on Bakhtin's and Rommetveit's theories on dialogic interactions, voices and meaning potentials in asynchronous dialogues. The results describe different dialogic interactions of meaning potentials and multiple voices in asynchronous dialogues, which students and teachers can use as a tool for learning in net-learning activities.

1. Introduction

Today are web-based learning environments ordinary and important learning areas in higher education, as well as in distance learning courses and on-campus courses. However, for both students and teachers are computer supported learning activities and distance teaching a new setting. This form of education usually consists of asynchronous conversations or dialogues between teachers and students, or among groups of students, concerning specific course content. The participants are expected to use the web-based environment to discuss literature and assignments, as well as to share knowledge and experience. The classic study by Scardamalia and Bereiter (1994) is often discussed as a source of inspiration for these learning environments. Other researchers describe web-based learning as a collaborative process in which participants negotiate and share meanings within a interactive, collective context (Stahl, Koschmann, & Suthers, 2006; Stahl & Hesse, 2007). The asynchronous dialogue thereby become a conversation in which participants are mutually dependent on each other, since those who write and those who read are co-authors and shareholders in a common negotiation to develop a meaning and understanding of the course content. Other studies (e.g. Dysthe, 2002; Jobring & Carlén, 2005; Amhag & Jakobsson, 2009) illustrate the potential in web-based dialogues as the range of *meaning-mediating* possibilities, as an active tool with self-reflective and interdependent thoughts, where each student can contribute with his or her own expertise and receive new information and experiences from others. Further studies (e.g. Meyer, 2003; Schellens & Valcke, 2005) point to the importance of writing to develop *higher-order thinking* and *critical thinking* in what way participants discussions becomes more concentrated on course content.

At the same time, other studies, for example Lipponen et al (2001) and Jakobsson (2006), show that students in these types of learning environments not always are active participants in such knowledge-building communities. The authors consider that these kinds of courses tend to result in relatively superficial or unreflective re-productions. In addition, Malmberg (2006), Lindberg and Olofsson (2005) and Wännman (2002) point out that the interface of the learning environment does not seem to be the only decisive factor to stimulate student dialogue and collaboration. According to these studies, the teachers tend to focus on organisational and administrative tasks, such as scheduling and the construction of individual assignments and examinations. Furthermore, they implicitly assume that the participants are able to use collaboration as a tool for their own knowledge development. The question is, in which degree the students use the voices and the potential of meaning in their own and others asynchronous dialogues. These resources are their own and others words meanings content. My starting point is that what is negotiated between students is *meaning* and requires both to have an opinion about something, as to understand the meaning or the significance of the dialogues. This point of departure is built on the assumption that students, as individuals, do not necessarily have had the possibilities to develop this competence prior to participating in this kind of context. As I see it is a creative and active learning process that evolves over time, when students use their experiences with others, to new ways of thinking and acting. In order to study this phenomenon, I have chosen to consider the students' ability to collaborate as a collective competence. This means that dialogues are considered as intrinsically social and collective processes, where the speaker is dependent on the listener as a co-author and where the speaker also is a listener who is engaged in sense-making activities in the course of the verbalization process itself (Linell, 1998, 2001). The purpose of this study is to examine what significance the students' dialogues have to be able to develop a collective and individual competence of collaboration. That is, to study in what ways the students use the multiple voices and the potential of meaning in written asynchronous dialogues as a tool for their own and others' learning, and how this collective competence of collaboration is developed in three web-based courses over a period of 60 weeks.

2. Theoretical approach

According to Computer Supported Collaborative Learning, CSCL perspective, people's dialogues, interactions and interplay constitute a determining factor for the individual's as well as the group's learning and knowledge development; I saw a possible way to take the theoretical approach in both socio-cultural theory and Bakhtin's theoretical framework of dialogues. The element that distinguishes this perspective from the majority of other perspectives is that it is not possible to understand people's learning and development solely from individual actions or development. The dialogue exchange is a dynamic process and it is these actions that give effect. According to a socio-cultural perspective (Wertsch, 1991; Wenger, 1998) and Bakhtin's theoretical framework (1981; 1986, 2001), learning always arises as a product of a social community of practice where people are involved in different types of dialogue processes to create meaning. Learning is, consequently, a social and collective process in which the person who writes or speaks is interdependent on those who read or listen as co-authors in a collaborative construction of meaning. As I perceive it, language is the link to the outer dialogue through communication with others and, in addition, develops into an inner dialogue or thought process that changes our understanding of the world. In that way, there is a parallel development of language and concepts since humans use communication, a mutual development of understanding and problem solving in collaboration with others. This view is based on the idea that humanity's ability to master and appropriate new or negotiated experience and also implies an understanding that people have a relationship with themselves and others. Therefore, appropriation becomes a concept that not only concerns a mechanical transfer or a passive acceptance, but also implies a mutual creation of meaning from content.

2.2 The role of the multiple voices in dialogues and learning

In this article, Linell's (1998, 2001) definition is used, where a dialogue is considered to be, "the interaction between co-present individuals through symbolic means" (p.12). According to Linell, meaning and understanding are not originally found in a person's consciousness, rather they are created by multiple parties working within a defined context and they arise from diverse interactive utterances. An important starting point in this definition consists of the Russian linguist Mikhail M. Bakhtin's (1986, 2004) specific approach to understanding dialogues. Bakhtin emphasises that language has *multiple* functions and every utterance, with its attitudes and values, places humans in a cultural and historical tradition:

Therefore, one can say that any word exists for the speaker in three aspects: as a neutral word of a language, belonging to nobody: as an *other's* word, which belongs to another person and is filled with echoes of the other's utterance; and, finally, as *my* word, for, since I am dealing with it in a particular situation, with a particular speech plan, it is already imbued with my expression (Bakhtin, 1986, 2004, s. 88).

In the opinion of Bakhtin, every utterance, spoken or written, is always formed by a *voice* (rus. slovo) and expressed from a particular viewpoint or perspective. In other words, utterances contain *dialogic overtones* that can, for example, be composed of assertions regarding the world, ontological conclusions or hypotheses regarding phenomenon. Meaning is first created when two or more voices encounter each other by means of the reading or listening voice answering or reacting to the writing or speaking voice. Therefore, every utterance also becomes a link in a chain of voices since each utterance can be considered as an answer to preceding utterances, that is, it has *addressivity*. To understand another person's utterance means that one must orient oneself in relation to the utterance within the particular context of the utterance. As stated by Bakhtin (1986, 2004), understanding, accordingly, is always dialogical in nature and all human communication is organised socially through dialogical interactions. This also leaves its impression in our utterances in the form of putting words in someone else's mouth or borrowing expressions from others or from literature, in other words, reusing what others have previously uttered, that is, *multiple voices* or *multivoicedness*.

Dialogues and creation of meaning also depend on the discourse and the context in which the voices utter. Bakhtin (1981) differentiates between the *outer authoritative discourse* and the *inner persuasive discourse*. He associates the authoritative discourse with a monological utterance, for example, religious, political or moral texts, as well as utterances from a superior power, for example, an adult, a parent or a teacher: "The authoritative word is located in a distanced zone, organically connected with a past that is felt to be hierarchically higher. It is, so to speak, the word of the fathers. Its authority was already *acknowledged* in the past. It is a *prior* discourse" (p.342). The authoritative discourse also requires confirmation and transmits without deeper reflection. By contrast, the persuasive discourse acquires its power through being comprised partly of one's own words and partly of others' words. According to Bakhtin (1986, 2004), an utterance can, in addition, be comprehended from an *active* or *passive* understanding. The passive understanding reproduces or recreates merely speakers or writer's words or thoughts, whilst active understanding creates a basis for response, argumentation, agreement, sympathy, objection, and so forth. However, it can also be implicit, silent or invisible as well as explicit and be uttered at a subsequent point in time, verbally or otherwise.

2.3. The role of the potentials of meaning and learning

Rommetveit (1992; 2003) uses shareholders and co-authors as metaphors in order to describe a situation in which knowledge and understanding are socially distributed amongst people. He points out that a pluralistic culture and

experience builds upon interpreted dialogues where mutual understanding is fixed through negotiations. In these negotiations, there arise *meaning potentials* that can be understood as the range of *meaning-mediating* possibilities that emerge during dialogues between people. With *potential*, Rommetveit means that the word or utterance that a person chooses is connected to the situation in which she finds herself, as well as the knowledge and experience she has with her. Rommetveit labels this situation as a *two-sided act* where “word meanings are thus neither in a speaker’s head nor in a dictionary. They are established dialogically under the influence of the situational context and the perspectives taken by the interlocutors – constructed by the speaker and the listener in a collaborative process, which means that both the speaker and the listener have a share in them” (p.193). Hagtvet and Wold (2003) describe Rommetveit’s meaning potential thus: “How the speaker (or writer) attunes to the attunement of the listener (or reader), and vice versa, is the prototypical situation he has sought to understand” (p.196). Meaning potential can also be understood as a sample space that is composed of all the possible ways to understand or interpret statements.

3. The study

According to Linell (1998, 2001), there has been a long tradition in research in human learning and the development of viewing dialogues only from an individual or monologic perspective. He argues that this tradition tends to view utterances and their meanings only as the speaker’s communicative intentions and describes the listener’s task as that of recovering these intentions. He describes this perspective as the *transfer-and-exchange model of communication*. As maintained by Linell, utterances in this perspective risk being understood only as the products of the individual speaker and her intentions but disregard the collaborative or collective nature of dialogues as for example described in Bakhtin’s or Rommetveit’s frameworks. This study intends to use both socio-cultural understanding of learning and development aims (Vygotsky, 1978; 1986; Wertsch, 1991; 1998) and Bakhtin’s (1981; 1986, 2001) and Rommetveit’s (1992; 2003) theoretical framework of dialogues to examine in what ways students’ joint ability to use written, asynchronous dialogues as a tool for their own and other’s learning is developed over three university courses in Teacher education over a period of 60 weeks participation in a web-based learning community. The research question in this study is:

- In what ways do students’ use multiple voices and the potentials of meaning in asynchronous dialogues in a web-based learning environment as a tool to develop a collective and individual competence of collaboration?

3.1 Methodological considerations and analysis

The study monitors 40 student teachers that participate in order to become qualified teachers. The students simultaneously work as teachers in upper-secondary schools in Sweden; the majority of them have worked as between one and five years, while around one fifth have worked for more than five years. In addition, the content did not comprise introducing the framework of Bakhtin or Rommetveit. The students, with both vocational and academic backgrounds, were divided into groups of five to six. The students worked both individually and collaboratively with tutor-lead, problem-based course assignments with deadlines. After students had submitted their own particular contribution to the course assignments, they had to respond to the contributions of their classmates in order to start a discussion. In this way, the data collection consists of the students’ asynchronous, contributions to the course assignments, group responses, and group collaborative discussions and dialogues. Of the total 2 068 contributions, 1 567 (76 %) were synoptic reading, before I analysed selection of excerpts 265 (13 %). The other 501 (24 %) contributions were excluded since they mainly concerned administrative, organisational or technical communications between students and tutors. Number of asynchronous contributions is described in Table 1.

Table 1. Number of asynchronous contributions in the web-based learning community during course 1, 2 and 3.

	Course 1	Course 2	Course 3	N
Total contributions	814	595	659	2 068
Synoptic analysed	430	489	648	1 567
Analysed excerpts	71	118	76	265
Not analysed	384	106	11	501

The students’ contributions to the course assignments, the group responses, and the collaborative discussions and dialogues were analysed and interpreted based on Bakhtin’s (1981; 1986, 2001) and Rommetveit’s (1992; 2003) theories on *dialogic interactions*, *multiple voices* and *meaning potentials*. Since multiple voices and meaning potentials are generated by students in a collaborative negotiation, all group members become shareholders and co-authors in a joint construction of meaning. This method of conducting the analysis is based on the assumption that when the voices in the dialogues in a group succeed in making the range of meaning potentials visible, they also create prerequisites for the group members to develop a new understanding of a task. The dialogues were

examined without other authors existing pre-defined categories into which to the data would be placed. Instead, the categories emerged through a two-phase analysis (Patton, 2002). The first phase involved discovering and identifying *thematic patterns and themes* (Lemke, 1990). According to Lemke, the thematic patterns describe a shared pattern of semantic relationships, which become evident in a specific discourse. In other words, the students have a joint ownership as co-creators of the thematic patterns that comprise semantic synonyms, attitudes, counterproposals, arguments, advice, theoretical problemizations, equivalent or contrastive words or solutions.

The first phase of the analysis revealed that different groups had different ways of using the dialogues, but also the existence of different ways of using the dialogues within the same group of students. This article has focused on only one group's different ways of using the dialogues. The development of this group exemplifies the development most groups underwent; hence, it constitutes a representative of the data material in general. This choice of focus also constituted a starting point for further analysis in the second phase and was used to specify categories that aimed to describe the groups' different abilities to use the voices and the potentials of meaning for learning on different occasions and in different situations. In this phase, the dialogues were also analysed by applying Bakhtin's (1981) descriptions of authoritative and persuasive discourses and whether the dialogues contained active or passive use of other's utterances. In order to increase the reliability of the analysis, two independent coders interpreted the dialogues, and the results of this analysis were compared. When there were different interpretations, the data material was reanalysed and the analysis were modified in order to reach a final description.

4. Findings

One of the aims in this study is to examine how, in what ways students' use the voices and the potential of meaning in asynchronous dialogues as a tool for their own, and other's learning. In the first excerpt, four students are involved in a dialogue on how a teacher can contribute to the creation of the conditions needed for pupils' learning and development. The students had studied three different reports within this subject area and were focused, at that point, on a report concerning schoolchildren's' increasing use of computers and their inadequate checking of the validity of information from Internet sources. The discussion went on to cover the pupils' playing computer games and the need to set limits on their computer usage. In this dialogue, it is possible to define the possible meaning potential between, on the one hand, the teachers' need to control what the pupils use the computers for and how much they can use them, and, on the other hand, support the pupils' own abilities to set limits for playing computer games and the necessity of checking the validity of electronic sources. Excerpt 1 considers the opposition between teachers' control and pupils' development.

<p>1. Eva [December 11 2005]</p>	<p>[...] I'm now teaching an Mp-class where the majority of boys want to be computer game developers and, therefore, have chosen the Media programme. The pupils play a lot of games in their spare time and most of them have access to a computer of their own. In my class, most of my pupils, just like in the study, play "The Sims" (both girls and boys), as well as CS (which is almost exclusively played by boys). Just about everyone has played games that have an age limit of 18 (like Vice City), even if they only stay at the first level. They don't think it's hard to do, and their parents either don't care that the game is restricted or that they play at a friend's house where the parents don't involve themselves in what happens with the computer. In a teaching resource about the effects of computer game violence that I use in my lessons, a boy relates that, when out in town, after a whole day of having played Vice City, he considers, before coming to his senses, stealing a car since he's tired of walking. It's about only the short-term effect and not any long-term personality change. The high-consuming kids and teenagers in the study admit that they spend too much time with high technology. This is something I've experienced myself when talking to a number of pupils who are always tired in the morning and whose grades are being affected by playing too many computer games too late in the evening. Most of them would like to reduce their playing but say it's hard to do on their own. I usually suggest a combined effort by the parents, the school and the pupil where we together set limits on how many hours games can be played, which we then follow up with school reports on attendance and grades. [...]</p>
<p>2. Martin [December 13 2005]</p>	<p>I know that this is your area of expertise, so I was a bit curious to know how you would interpret that report. I get a feeling that your post expands on the report we had to read, and, essentially, I think that you describe today's situation among teenagers' use of technology perfectly. However, what I don't have is your personal interpretation and reaction to the report.</p>
<p>3. Harry [December 14 2005]</p>	<p>I can agree with Martin in certain respects that you expand upon the report with your knowledge of the area and don't give your own slant on it. It is, after all, your subject. However, I do think that you raise an important question that isn't illustrated in the report, that is, if children have rules around media they learn indirectly that that which we receive via the media is important and isn't something to just waste. That's what I believe. If children have free access to all types of media, I believe that they don't learn to sift through it and check the validity of what they find. Without rules at home, you get, for example, the problem of tired children and teenagers because of too little sleep. Then they can't keep up in the lessons and receive poor grades.</p>
<p>4. Carl [December 15 2005]</p>	<p>I think that your post reflects reality better than the report we were supposed to read. Therefore, I think that we parents have to be clearer with setting boundaries for how often computer and TV games can be played and which games they can play.</p>

5. Karin [December 15 2005]	Interesting thoughts regarding media usage amongst young people! My interest was caught by what you said about having rules to control Internet usage and that you could, for example, block certain search words. It must be incredibly difficult as a parent to keep track of how the Internet is used and to what purpose. You can't sit with them the whole time so as to keep track. It's just good then that you can set some kind of limits. At the same time, you know from experience that pupils are extremely good at getting around such things. We have, for example, blocked MSN at our school but despite this, you often see pupils sitting and chatting via MSN.
6. Eva [December 17 2005]	Hi, thanks for all the answers! Great that you, Martin, reacted to me not being so personal in my post, I take onboard your criticism! As an excuse, I fall back on lack of space. However, above all, I want to point out that I'm not trying to condemn my pupils' CHOICE of media. If I'm going to have constructive discussions about media with my pupils, then I have to take their experience and media habits seriously. But if they, like I wrote, show me a site that I consider unethical and completely corrupt, I tell them that and explain why I think that. And, I usually try to create a bit of debate around the subject. I believe that they need to hear an adult's view, otherwise they wouldn't have shown me the site, but at the same time, I respect their views. Above all, the time that pupils spend on computer games is, nevertheless, a problem. It's all about that we teachers and parents have to dare to get to grips with the problem and limit the amount of screen time.

In the dialogue Eva (1) raises the problem with upper-secondary school students and the increasing computer game playing during their spare time and in school; she points out how this can have a negative effect on pupils' school performance. Further, she argues that cooperation between school and home can establish reasonable rules for pupils' computer usage and create conditions wherein they can be adhered to. Martin (2) essentially confirms Eva's post but also asks after her personal interpretation and understanding, since he knows that they are discussing her area of expertise. Harry (3) also starts with confirming the previous post, but at the same time by saying "if children have rules around media they learn indirectly that that which we receive via the media is important and isn't something to just waste," he seems to indirectly argue that pupils need to understand the meaning and purpose of the rules. He also argues that unlimited computer usage does not automatically develop pupils' ability to check the validity of sources and seems to, thereby, point out the need to discuss the problem with the pupils. Even Karin (5) starts with a confirmation of previous posts, but focuses then on the problem of setting boundaries for pupils' computer usage by stating that it is not possible to have full control and that pupils often get around the limitations. It can be asserted that Harry's (3) and Karin's (5) statements create the conditions for highlighting the possible meaning potential in the assignment in that they problemize that assertion that the teacher needs to set boundaries for pupils' computer usage. It is also reasonable to assume that Harry and Karin's statements impel Eva (6) to clarify that her intention was not to "condemn [her] pupils' CHOICE of media" and that her goal has been to have constructive discussions with her pupils about media and their media usage. Simultaneously, she still insists that it is necessary to protect and help her pupils through limiting their computer usage.

The thematic pattern in the dialogue in excerpt 2 constitutes yet another example of an *accepting* and *confirming* discourse (4, 5). Both Harry's (3) and Karin's (5) statements exemplify how the students first acknowledge previous posts in order to then gradually *question* what has been previously said or in order to add new opinions. Through this, the possible meaning potential is clarified between, on the one hand, the teachers' need to control what the pupils use the computers for and how much they can use them, and, on the other hand, supporting the pupils' own abilities to set limits for playing computer games and to check the validity of sources. It can also be asserted that Harry's and Karin's statements initiate a *negotiation* about computers as tools in schools, which implies that the participants need to use a different approach to arguing for their opinions. In this way, the dialogue also develops from being authoritative towards being increasingly *persuasive*. According to Bakhtin (1986, 2004), this signifies that various voices can be heard and that the words that are used consist partly of their own words and partly of others' words. These words are developed during an inner and outer struggle between differing points of view and values. Rommetveit (2003) emphasises also that pluralistic cultures and discourses make use of interpretive and persuasive dialogues in order to create a common understanding. At the same time, it can be asserted that the participants are still not quite capable of using the meaning potential to focus on how professional teachers can get on with developing their pupils' understanding of the problems, that is, the discussion is not really able to focus on how teachers can set about balancing, on the one hand, formulating clear rules for computer usage and, on the other hand, supporting the pupils' own development towards becoming responsible adults. A summary of the dialogic levels is described in Figure 1.

Dialogic Level	The levels of thematic pattern in the dialogue
Passive and authoritative	<ul style="list-style-type: none"> • accepting and confirming • passively reproducing • monological and authoritative • failure to explicate the possible meaning potential in the dialogue as a basis for learning and development

Persuasive and preliminary negotiation	<ul style="list-style-type: none"> • accepting, confirming and questioning • elements of passively reproducing posts • negotiations • responses create possible meaning potentials • failure to use meaning potential as a basis for learning and development
Persuasive and co-authorial negotiation	<ul style="list-style-type: none"> • accepting, confirming or actively questioning and a desire to develop the discussion • few or no elements of reproducing posts • others' statements reworded to own words • participants are shareholders and co-authors in the account • negotiations • responses create possible meaning potentials • use of meaning potential actively as basis for learning and development

Figure 1: Summary of the three levels of thematic pattern in the asynchronous dialogues.

In the second excerpt, three student teachers are engaged in a discussion about what significance the pupils' social situation has on their learning and development. The students have studied literature on socio-cultural learning and development processes. Their assignment is to describe a concrete teaching situation that is linked to the literature and to reflect on the course of events in the situation. In this assignment, the multiple voices arise primarily from the students' own examples and from how they are able to use the literature to analyse the described teaching situation.

1. Harry [January 18 2006]	[...] Maria is a girl who has chosen Vehicle Program as she imagined a future as a driver. She is keen and forward and really wants to learn to drive a truck. Maria has, as I see it, two characteristics that are not located her in a barrel on the Vehicle Program. Firstly, she is female. Prejudices are many from both classmates, other students and, unfortunately, also teachers. Truck driving is not for "womenfolk". This has certainly meant that Maria has been viewed as less knowledgeable right from the first years of upper secondary school. Teachers who have prejudices against certain students, regardless of the type of prejudice, it must be difficult, if not impossible to practice such a dialogic teaching Dysthe (1996) reports. (One example she highlights is Ann in the class of Baywater who really understood the importance of authentic issues in the classroom).
2. Carl [January 27 2006]	Hi Harry! I think you grabbed the issues that Maria had in a very exemplary manner. You took not only time to show everything from scratch, you might also build up the confidence of Mary so that she passed the driving test and could proceed in training with the others.
3. Eva [January 28 2006]	Hi Harry and everyone else! I agree with Carl in a lot, your, Harry, exemplary manner gave Maria confidence back. Just by being taken seriously and therefore can be respected, a student show respect back. And it is well to be respected, or how all teachers want most often? The previous teacher driving attitude is somewhat to my surprise I also have encountered among other teachers. It is assumed that one's own way of teaching is the right thing ("It has been operating for 100 years before!") and that some of the students are "uneducated". For obviously can these students not learn what other students can. The specific learning style works for some student and not for everyone, they don't want to think about, and blames everything on heavy workload, lack of time or at all upper secondary schools forms. (Just school forms, I have noticed is popular to blame ...) We are probably ourselves here in the base group a bit envious of your situation with the luxury to operate individual instruction with one student at a time. But on the other hand told you that you have teaching hours all day and no time for planning so it is perhaps not whine ... Fun to read!
4. Harry [January 29 2006]	Hi Eva! Yes, maybe you are right that it is a luxurious situation with one to two students at a time, but I can assure you that I am quite out of the box after a working day. To go around with an 18-year-old in a carriage that is 22 meters long and weigh 35-40 tons requires my undivided attention and concentration throughout. It is like driving himself while coaching. But it is a great advantage with only 1-2 students at a time. I come very close to the pupil and can devote myself to one student at a time. It is an advantage.

The initial argument lift Harry up: "Truck driving is not for `womenfolk`". This assertion may be an example to *others' voices* reproduced convincingly by Harry's voice. The allegation is likely to have heard expressed by another person and thus contains echoes of other voices, something Bakhtin (1986, 2004) describes as *dialogical overtones*. As a conclusion to the initial argument Harry writes: "This has certainly meant that Maria has been viewed as less knowledgeable right from the first years of upper secondary school". This claim can be interpreted as both Harry's *own voice* based on his own reflections and the *voices of others* based on the arguments of others from the school that Harry appropriate to his own words.

Harry continues in its response to the course task with a more *neutral voice* when he writes: "Teachers who have prejudices against certain students, regardless of the type of prejudice...". It is neutral in the sense that it contains generally liked by teachers and colleagues can be interpreted, as the view is not over-built with Harry's

own words. He continues his argument by writing: "[...] it must be difficult, if not impossible to practice such a dialogic teaching Dysthe (1996) reports". This claim can be considered as evidence of *others' voices from the literature* that indicates that Harry has had insight into what a dialogue proprietary classroom is through *words of others* from the literature. In this case from the literature of Dysthe (1996) describing the multivoicedness classroom. She gives examples of how teacher Ann in the class of Baywater in the authentic and open questions which pupils thinking and articulates what they understand, whether temporary or opinions on the responses of shortcomings. Harry's knowledge of what a dialogic classrooms is, can be seen, as an example of that learning is not created from a single word or from the language system, but the relationship and interaction between my own voice and others' voices from the literature. In other words, a form of *intertextuality* in Harry's post on a different subject experience and reasoning from other texts (Bakhtin, 1986, 2004).

In summary contains Harry's argument Bakhtin's (1986, 2004) all multiple voices; *the neutral voice*, *the voice of others* and their *own voice*, which all with different content generate new meaning (Lotman, 1988). Dialogically, according to Bakhtin (1981), illustrates the potential difference that occurs between Harry's own views, thoughts, and voices of others and documents from the school. This tension between Harry's different voices should allow for new interpretations and reflections of both Harry and his group participants Carl and Eva. A summary of the multiple voices is described in Figure 2.

Multiple Voices	Pattern of meaning in the dialogue
1. Neutral voice of a language	<ul style="list-style-type: none"> • reproduce other people's world view • aimed at any general or generally thought • is not substantiated by his own words from the literature or personal experience
2a. Others' voice	<ul style="list-style-type: none"> • reproducing reproductions of previous voices • contains echoes of other voices • explicit voices to be heard by others' voices • the voices are not always originated in the person himself
2b. Others' voice from literature	<ul style="list-style-type: none"> • reproducing reproductions of other authors voices • drawing on other subject experience and reasoning from other texts • references and paraphrases other people's words from literature to their own words • <u>creating, negotiating and confirming the meaning</u>
3. My own voice	<ul style="list-style-type: none"> • carries internal reflections and feelings • contain their own and others' voices, arguments, justifications, contradictions, experience etc. as appropriates to his own words • construct and reconstruct a mutual meaning or a part of it • <u>creating, negotiating and confirming the meaning</u>

Figure 2: Summary of multiple voices in the asynchronous dialogues.

5. Discussion and online education implications

On the whole, all groups actually developed some kind of collective competence to collaborate, when they used the multiple voices and the potential of meaning as a tool in net-learning activities. Further, it is possible to claim that this development was inconsistent in different groups, but also varying within the sample group throughout the 60 weeks of participation. The analysis also conveys that the dialogues in most groups actually can be described as *passive and authoritative* or *persuasive and active negotiation*. It is also possible to state that for some groups the development of the collective competence to collaborate was problematic, and in these groups there existed a tendency to get into a rut at lower dialogical levels. It is also possible to state that the *multiple voices* must orient oneself in *relation* to the utterance within the particular context of other utterances for learning and development. In order to further scrutinize what constitutes these hindrances or problems, additional research is required.

However, the results of this study clearly indicate that if students are to be able to develop an ability to collaborate with persuasive and co-authorial negotiation and appropriate other's multiple voices from literature to my own words, the collective competence to collaborate needs to be in focus and needs to be reinforced by resources with the goal of establishing this. One important conclusion from the results of this study is that the competence to use collaboration as a learning tool does not seem to be a quality that the participants automatically have when they participate in online education. Rather, this ability should be understood as a collective competence that a group of participants actually could develop when they are collectively engaged in course assignment in online settings. Consequently, this implies that the ability to use collaboration as a learning tool is situated in a specific situation. Furthermore, the organisation of the online course has to support this development in order to accomplish the best prerequisites for learning. The teachers or course leaders could, therefore, use the different dialogic levels and multiple voices, described in this study, as an analytic tool in order to scrutinize how students manage to develop the collective ability to use dialogues for learning.

One way of supporting the students during online courses could be to use Bakhtin's (1986, 2004) theories of voices in dialogues and Rommetveit's (2003) framework of meaning potentials. The results of this study indicate

deeper and more productive dialogues and enhanced learning when different understandings, significances and contradictions in course assignments are made visible and explicit to the participants. Hence, the aim is that the students should develop the ability to independently identify the multiple voices and the meaning potentials for enhanced learning. At a later stage, the three dialogic levels of meaning potentials and the multiple voices could also be used as a metacognitive tool for students in order to improve group efficiency and to present the group with the possibility of analysing their own dialogues retrospectively. This means that the students could use their own dialogues from earlier assignments in order to enhance their own development. A third implication in this study is related to future research within this field and how we might understand and interpret dialogues. By adopting traditional approach (Linell, 1998, 2001), one runs the risk of disregarding the collaborative and collective nature in web-based dialogues and dialogues as a net-learning activities, thereby losing the essence of how creative meaning potentials lies in the tension between multiple voices and conflicting perspective.

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