REFLECTION AND ARGUMENTATION IN A MOODLE MEDIATED DISCUSSION BOARD: TOWARD DIGITAL LITERACY

Tânia Gastão Saliés¹ e Tânia Granja Shepherd²

ABSTRACT

This paper focuses on an asynchronous, text-based online discussion board, part of a Moodle mediated undergraduate class in Applied Linguistics taught in Brazilian Portuguese to 13 undergraduates enrolled at the Rio de Janeiro State University. The research seeks to study how meaning is discursively and textually co-constructed in a collaborative written task carried out by students posting to the forum and relate findings to digital literacy development. To this end, it qualitatively analyzes the discursive, textual and socio-affective strategies present in the postings. At the discourse level, it looks for possible claims, grounds and warrants and examines both the topic framework and discursive strategies that may project coherence (eg. repetitions). It also analyzes reflexivity, by looking at metacommunicative actions such as the integration of knowledge. At the socio-affective level, it examines how participants relate to each other or rather the presence of questions, elaborations and evaluations. The analysis shows a discursive construction that integrates evidence and explanations from previous readings to the postings as well as some claim-ground-warrant sequences. The retakes of ideas previously posted project coherence and allow participants to position themselves as thinkers. From a sociocultural approach to learning, participants’ writing unites the cognitive to the social level dynamically, making their act of participating in the forum an inseparable part of their digital literacy and writing development. However, they are hardly critical of texts and their colleagues’ contributions. This latter evidence needs to be explored further, as academic literacy as a whole, and that which is digitally mediated ought to include peer criticism. The paper ends by stressing the need for further understanding of how human interaction within an online environment may be affected by computer mediation as well as its possible affordances and constraints for the development of digital literacy in the academic realm.

KEYWORDS: online discussion boards; digital literacy; topic flow; coherence; argumentation.

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RESUMO

Este artigo enfoca um fórum assíncrono de discussão mediado pela plataforma Moodle, parte da disciplina de Linguística Aplicada ao Ensino de Línguas Estrangeiras, ministrada em português brasileiro, a 13 alunos da Universidade do Estado do Rio de Janeiro. Tem por objetivo verificar como o significado é discursiva e textualmente co-construído em uma tarefa de escrita, desenvolvida de modo colaborativo, na forma de postagens ao fórum, e suas relações com o desenvolvimento do letramento digital. Para tal, examina as estratégias discursivas e sócio-affetivas presentes nas postagens. No nível discursivo, examina a presença de possíveis argumentos (sequências de alegação-evidência-garantia) além da estrutura tópica e estratégias discursivas que possam projetar coerência, como a repetição. Analisa também os índices de reflexividade ao codificar e interpretar ações metacomunicativas como a integração de conhecimento. No nível sócio-affetivo, olha especialmente para a forma como os participantes se relacionam uns com os outros ou para a presença de perguntas, elaborações e avaliações. A análise mostra uma construção discursiva que integra evidências e explicações a partir de leituras e postagens anteriores, bem como algumas sequências do tipo alegação-evidência-garantia. As repetições de ideias projetam coerência e permitem que os participantes se posicionem e se projetem discursivamente como pensadores. À luz da teoria sociocultural de aprendizagem, a escrita dos alunos participantes une os níveis cognitivo e social dinamicamente, tornando o ato de participar do fórum inseparável do desenvolvimento de letramento digital e da escrita. No entanto, de forma geral, os participantes não criticam as postagens dos colegas. Essa constatação ainda precisa ser explorada, já que o letramento acadêmico como um todo e o letramento digital devem incluir a habilidade de saber criticar os pares. O artigo termina enfatizando a necessidade de uma maior compreensão de como a interação humana em ambiente on-line pode ser afetada pela mediação digital, bem como os possíveis propiciamentos e restrições para o desenvolvimento da competência escritora e do letramento digital.

PALAVRAS-CHAVE: fóruns de discussão assíncrona; letramento digital; fluxo de tópico; coerência; argumentação.

Introduction

Since the 1950’s, classroom interaction has been the focus of research from a number of perspectives. These perspectives have ranged from the early phases of analysis of discourse structure of an orthodox teacher-centered classroom (SINCLAIR; COULTHARD, 1975) to a more recent interest in how classroom interaction and pedagogical discourse may be constitutive of knowledge construction (GUMPERZ; COOK-GUMPERZ, 2006; FRANCHI, 2001). This latter post-seventies focus has been fostered by a shift in learning conceptions, whereby learning is seen not only as a “constructive process which takes place in the mind of the learner but also as a process of meaning-making and enculturation into social practices” (KUMPULAINEN; WRAY, 2002, p. 3). As a result of this shift, research into classroom interaction has so far served a twofold purpose. Whereas it has been possible to elicit the various patterns underpinning the roles played by students and teachers in face to face teaching, it has equally been possible to use the insights into which interactional patterns are more liable to provide learning opportunities and apply them in
teacher education. Most of the research into classroom practices, however, has tended to focus on face to face interaction (cf. WELLS, 2006; GEE, 2008; WARRINER, 2008).

With the introduction of computer mediation for teaching purposes, the analyses have concentrated mostly on synchronous interaction. The text-based computer mediated communication, or rather the instant messages sent through chat software, have been approached with analytical tools from the traditions of conversation and discourse analysis (i.e., turn-taking, floor types, overlap, adjacency pairs and repair). Other foci include the influence of the text producing software on the (dis)organization of the interaction.

This paper goes against the grain by focusing on the postings submitted to an asynchronous, text-based computer mediated forum, commonly known as discussion board. This is the same as to say that the textual object being investigated here is less software-dependent and more human-activity oriented than, for example, the text produced by the synchronous chat software (WINIECKI, 2013). Unlike the chat, the discussion board’s main characteristic is that it does not require the participants to be present at the time of the interaction. When posting, forum participants have the possibility to plan and edit their contributions carefully. In addition, when reading, participants have time to process messages and thus choose to reread whole stretches or parts of them. All these features, which make up the written ‘conversation’ of the forum, set the resulting discourse apart from chat-texts and make it worth investigating. However, doubt remains as to whether the forum

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\begin{align*}
\text{a) } & \text{is capable of mediating learning opportunities,} \\
\text{b) } & \text{makes room for the development of digital literacies}
\end{align*}
\]

and finally, how the forum manages to affect (a) and (b) above. The overall goal of this study is, therefore, to explore these issues.

To this end, the study examines the written discourse which is the final product of a Moodle-mediated undergraduate class of Applied Linguistics to the Teaching of Foreign Languages offered by the Rio de Janeiro State University Faculty of Letters. The analysis uncovers if/how the discussion ‘hangs together’ as a coherent interactional whole and verifies how meaning is discursively and textually co-constructed by examining cohesion, contextualization cues and thematic organization.

The frameworks of discourse and digital practices (JONES, CHIK; HAFNER, 2015) and mediated discourse analysis (NORRIS; JONES, 2005) inform the qualitative approach taken in the analysis. According to this view, texts and other cultural tools may mediate human activities and project social identities. Our interpretation of findings is also guided by the sociocultural approach to learning and to the mind (JONES, 2013; LANTOLF; THORNE, 2006). For this approach, thought and language emerge from doing or actively responding to a given task (see also LARSEN-FREEMAN, 2003, p. 113). Or else, by participating in the forum, students’ digital literacy in the academic realm may arguably develop. The basic assumption that underpins this hypothesis is that learning and the experience of participating in the forum are mutually constitutive.

Ultimately, we seek to contribute further understandings of how a task specially designed for a virtual environment may relate to the development of any of the digital literacies and competencies that are part of academic practices, namely the capacity to filter and integrate information;

the capacity to collaborate and share knowledge; the capacity to use and reuse traditional literacies and the ability to be critical of texts and of colleagues’ contributions. These are, according to the guidelines of the Joint Information Systems Committee of the United Kingdom, (JISC, 2014, p.1) capabilities which fit someone for living, learning and working in a digital society, which, in turn, are seen as part of a developmental process made up of phases which start with learning to access different platforms and software and encompass activating higher level capabilities.

**Digital discourse and digital literacy**

Following Jones, Chik and Hafner (2015), digital discourse is here taken as a tool that mediates an array of social practices in a way as to achieve particular social goals, enact particular social identities, and reproduce particular sets of social relationships (p.16). In the same vein, according to Josie Frasier (in an interview given to ANYANGWE, 2012, for the Higher Education Network Blog), for digital academic discourse to be produced within the realm of higher education, one has to access a composite of features, as digital literacy is the sum of digital tools knowledge, critical thinking and social engagement. In this sense, digital discourse within academia should support and help develop traditional literacies, among them writing skills and critical reflection on how these skills and competencies get into action in the socialization of language or their social engagement.

In the particular case of this study of a Moodle online discussion board, it is necessary to look into the concrete, situated actions which learners performed to discuss possible applications of theoretical concepts in Foreign Language Learning and apply them to the analysis of a movie (The Terminal; NATHANSON et al., 2004). This requires analysis of the text produced by participants; the context in which the text was produced, consumed, exchanged and appropriated; and what learners did with the text and with and to each other (JONES, 2013). This is developed in the sections below.

**Online discussion boards**

According to a model proposed by Belenky et al. (1997), there are two possible ways of behaving in online discussion boards: (1) constructing knowledge analytically and objectively – the ‘selfish’ mode; or (2) constructing knowledge within the interaction process – the ‘interconnected’ mode. In the latter case, learners take the perspective of other participants, exercising not only subjectivity but also intersubjectivity. There is still a third possibility, as explained by Williams (2005): learners may construct knowledge by combining modes 1 and 2, thus giving rise to the ‘constructed’ mode. From this perspective, learners not only analyze the problem at hand, but also exercise their subjectivities as they express agreement and disagreement and identify positive and negative points in their peers’ postings. Restructuring of knowledge systems and positioning of selves are present in every case. Therefore, from this perspective, online asynchronous discussion boards would arguably be seen as environments which may foster continuous cycles of exposition, analysis and evaluation of new ideas and, thus, yield opportunities for reflexivity and creativity, two qualities that are pervasive in any type of writing, especially in digital academic discourse. If this is so, the resulting product of students posting to the forum should show at least some reflexivity and creativity.
Data and method

In contrast to most research that has addressed online discussion boards (WEVER et al., 2006; LU; CHIU; LAW, 2011), this study takes a qualitative approach to the analysis of discourse (GEE, 2008; JONES; CHIK; HAFNER, 2015), examining holistically four systems that are interrelated in discourse: Cohesion, the overall organization of the text, contextualization cues and thematic organization. It follows Halliday and Hasan (1976) in the analysis of how the different postings are seen as "hanging together," specifically looking for repeated words and phrases, syntactic devices and/or various sorts of lexical and grammatical features that create cohesiveness. The overall structure of the text was analyzed according to the Toulmin Method of Argumentation (the presence of claims, grounds, warrants, challenges and synthesis; TOULMIN, 1958; apud TINDALE, 2004), as well as the presence of reflexivity signaled by metacommunicative actions such as the creation of new insights and integration of knowledge. With regard to contextual cues, they were coded according to the moves to collaborate (the presence of questions, elaborations and students’ evaluations of each other’s contributions), socio-affective discourse strategies and the existence of a constructed mode of discourse (WILLIAMS, 2005). Cues were also examined that might throw light on how participants see themselves, how they want to be seen, in addition to how they understand interaction within a discussion board (GEE, 2008). Finally, thematic organization was also analyzed, especially that which derived from themes that occurred with high frequency in the corpus to the point of becoming categorical (BROWN; YULE, 1983).

Context: Discipline, Task and Participants

The primary data for this study emerged from digital discourse produced by 13 undergraduates of a large, public university in the State of Rio de Janeiro (UERJ), Brazil. The online discussion occurred in tandem with face-to-face classes in Applied Linguistics and the Teaching of Foreign Languages, a discipline which is a core part of the curriculum of all language majors at the Faculty of Letters. The objective was to allow students to appropriate tenets of foreign language learning and teaching for themselves. To this end, the professor (the first author of this paper) asked them to watch the movie The Terminal (NATHANSON et al., 2004) and relate readings and discussions developed in class to the experiences of the main character in the movie, a learner of English as a second language. The professor set up the forum and moderated the online discussion minimally.

Students were prompted to discuss how the communicative challenges faced by Viktor Navorski, the main character in the movie, could be explained in the light of various concepts. These included interlanguage, the critical period of language acquisition, error analysis, scaffolding, among others previously introduced by their readings for the discipline and face-to-face weekly meetings of one hour and a half. Students were also prepped not to simply retell the movie plot, but to associate their theoretical understandings to the character’s experiences.

The online asynchronous discussion went on from June 09 to July 09, the last month of the semester in Brazil. During this time, the professor posted no more than four times, in an effort to foster participants’ independence and interconnectivity. In these cases, giving answers was avoided; rather, learners’ thoughts were challenged. On their last face-to-face meeting, a debriefing was
conducted to synthesize and clarify those points where misunderstandings might have occurred.

Out of the 17 students enrolled in the Applied Linguistics discipline, 13 participated in the discussion board (10 females and 3 males). All are native speakers of Brazilian Portuguese and, at the time of the study, their ages varied from 18 to 22 (ten of them were 19 years old). They were in their second semester of the Portuguese-Japanese and Portuguese-French majors offered by the UERJ Faculty of Letters and their participation in the forum was evaluated for quality: They could add up to 20 points to their total score in the discipline if they demonstrated knowledge of the concepts and reflexivity. To guarantee their anonymity, all names provided in this paper are fictitious. In addition, students’ contributions have been reproduced as they appear in the original postings (with no correction whatsoever) and were here translated verbatim.

**Research questions**

The research questions that this study intends to answer aim at understanding the discursive construction produced by the 13 students who performed in the Moodle online discussion board and how it relates to the development of digital literacy in the academic environment. They are

a) How do learners both create and reflect on discourse?

b) What patterns, if any, of language use emerge?

c) What learners do with each other’s texts and how do they relate to each other?

d) How does their text production relate to digital literacies of an academic nature and may assist teachers in understanding how better to afford its development?

The answers to these questions can be found in the next sections.

**How learners created discourse**

Knowledge has been defined as “what is created when information is integrated into our minds in a way that we are able to adapt it to different circumstances and apply it to analysing and solving problems” (Jones; Haffner, 2012, p. 19). Knowledge is created when “information is transformed in some way – when, for example, it is combined with other information or applied to a particular task in a useful way” (p. 19). In the case of the online discussion under study, participants invariably prefaced their claims by citing their colleagues’ contributions. Thus, it may be argued that the forum afforded them opportunities to push their understanding forward. By considering the ideas of others in the group, they showed their individual construction of knowledge and the language with which to express that knowledge. Their uptake of one another’s ideas and the order in which each participant contributed to the discussion illustrates this collective construction. This is shown by Example 1.

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3 The postings in Portuguese were reproduced verbatim (with no corrections or editing). Their translation to English respected whatever deviations present in the original.
With the exception of Luis, Rogéria and Pepe (postings 12, 15 e 16 respectively, who did not retake previous ideas), the other participants advanced information from points made by their colleagues in previous exchanges:

To further illustrate this point, we examined the thematic organization of the corpus or rather how many times a theme was retaken (Table 1). As some participants contributed ideas, others would retake and further develop the same ideas, foregrounding information. For example,
Topic 1 “input in natural contexts of interaction is facilitative of learning” was the most frequent claim and it was further developed into subtopics such as “the affective filter needs to be low” because “motivation increases” or “a low affective filter is not enough”, “contextual cues and scaffolding are necessary.” Participants would retake an idea simply to go along with it (see Example 1) or to take it on, by adding information from their readings and by expressing their own interpretation of facts in the movie. As they did it, they appropriated concepts present in the literature of Foreign Language acquisition.

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<thead>
<tr>
<th>Sub-topics</th>
<th>Mentions</th>
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<td>Contextual cues</td>
<td>6</td>
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<td>Motivation</td>
<td>4</td>
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<tr>
<td>Absence of formal study</td>
<td>3</td>
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<td>Accent</td>
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<td>Learning strategies</td>
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<td>Hypothesis testing</td>
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<td>Acquisition natural order</td>
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<td>Everyday actions</td>
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<td>Local errors</td>
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<td>Motivation</td>
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<td>Independent study</td>
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<td>Interaction=input</td>
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<th>Sub-topic</th>
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<td>Comprehension emerges from context</td>
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<th>Sub-topic</th>
<th>Mentions</th>
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<tr>
<td>Output affords the perception of gaps</td>
<td>2</td>
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</table>

**Table 1:** Topic development

The length of their postings also demonstrates the quality of their topic development. Some postings, such as Alice’s in example 2, added up to 626 words, posting 18 (371 words), posting 8 (364 words), posting 13 (354 words). The mean length of their contributions was 277 words, the shortest being João’s (70 words). Most postings fell in the range of 250-370 words (n=12). That is, their topics and subtopics were well explained and supported by examples and facts from the movie as it may also be seen in Alice’s posting (Example 2).
Something I have also noticed was that the age factor comes into play. He learns the second language already as an adult, and manages to develop relative fluency step by step, showing discrepancies only in pronunciation, creating an accent (Juliana).

The learning of a second language by children and adults is really distinct. Following Quaresma de Figueiredo's text, the age factor is distinctive as it relates to rate of acquisition. Adults already have cognitive strategies to go through the learning of a language. In only 1 month he could enter the intermediary stage (from there on he takes a slower rhythm). For this reason, Viktor manages, as soon as he controls his emotions and sees the need to understand what is going on in his surroundings (the situation of his country of origin implies his destiny at the airport), to assimilate the News and gain the fluency he didn't have. Naturally, there are discrepancies in pronunciation. According to Figueiredo, (p.41) “children perform better than adults in the pronunciation dimension of a foreign language”. As soon as he starts to put together the signifier and the signified, there is a moment in which Viktor gets magazines in his native language and in English to compare words – with the interplay of the factors above mentioned, he had more opportunities to understand and learn new knowledge, and started to acquire more vocabulary in English (Pedrita).

Viktor begins to study even more when he begins to make money. He buys bilingual books to compare his native language to the language spoken at the airport (English). He uses a learning strategy, according to his affective filter, and in this way he begins to understand the “conversations” better. Interesting scenes and excerpts from the movie:

- At the beginning, the signs, post-its attached to the telephone, and specially the forms made his life at the airport chaotic since everything was in English. The symbols were a problem too when the director uses fruits and appetizers to illustrate his situation in the country. The more visual information they provided, the more confused he would be.

- After sometime, Viktor is called by the director. The man tries to help Viktor to get political asylum in the United States. He asks: “Are you afraid of going back to your country?” Viktor keeps answering “No. I love my country”. At this moment there is perfect communication – phonetically and syntactically – between them two. However, even if he had understood the meaning of the sentence, Viktor cannot understand its meaning within the broader context, therefore, he cannot get at the intention underlying the discourse and communication breaks.

- Every time he gets emotional and/or lose control (ex: when he notices that his country is in war), that is, in situations that demand effort or emotion, he speaks in his mother tongue.
According to Figueiredo’s text (p.51), Krashen, in his monitor hypothesis, affirms that “the monitor or the controller only acts when three conditions are fulfilled: time, focus on form and knowledge of the rules.” Viktor has plenty of time at the airport, since he cannot leave that space, he has the opportunity to learn with intensity. With regards to focus on form, he only pays attention to his mistakes when his fluency improves. At the beginning, he does not understand, for this reason, he only says “yes” for anything. Also, he begins to notice the rules with the material he got (books) at the bookstore, but still has difficulties with grammar when under pressure.

Everything that connects the human being to action is learned first. Its of necessity. He tries to survive by his actions. Makes a bed (using his native professional knowledge) and gets food (first: returning the baggage carts to their place/then: the employee responsible for the baggage carts made a verbal agreement with him -> I give you food if you help me to win the attendant’s heart).

Exemplo 2. Alice’s posting (see the original Portuguese text in Appendix A)

Patterns of language use: developing traditional literacies

The undergraduates organized their discourse by making claims (the topics and sub-topics in Table 1 exemplify the claims found in the corpus), providing grounds (by means of examples and further development of the sub-topics) and warrants (logical connection between claims and grounds). They also projected credibility, by citating readings and expressing agreement with peers. The structure of their discourse is exemplified in (3).

| Marcela: […] Não entendo como Viktor poderia entender a complexidade da situação enquanto fazia o papel de tradutor, como ele conseguiu pensar e perceber rápido que se os remédios não fossem para uma pessoa ele poderiam não ser barrados; e quando o diretor lhe dá a chance de asilo político ele não entende[...] Poderia ser um engano do filme ou poderia ter alguma explicação o seu entendimento melhor em situações diferentes? | Posting 9 | Marcela: […] I don’t understand how Viktor could understand the complexity of the situation as he performed the role of a translator, how could he think and notice fast that if the prescriptions were not for a given person they would not pass immigration; and when the director raises the possibility of giving him political asylum, he does not understand […] Could it be a mistake made by the director of the movie or could it have any other explanation the fact that he could understand certain situations better? |
Luis: Em vista dos tópicos que a Melissa citou, é possível perceber que, devido a estar em território americano, ele recebe muitos inputs daquela língua o tempo todo, das pessoas ao seu redor, televisão, revistas, lojas, enfim. Porém, faltam instruções para que ele possa direcionar focos de atenção e transformar tais inputs em outputs, devido a isso, ele precisa desenvolver sozinho, mecanismos de aprendizagem, para que possa assimilar todos os inputs recebidos [...]. Ele começa então a fazer assimilações, como associação de imagens, quando assiste ao noticiário por exemplo, comparação de um livro em inglês com outra versão em sua língua nativa [...]

Given the topics that Melissa brought up, it is possible to notice that, because he was in American territory, he receives lots of inputs in the target language all the time, from people around him, TV, magazines, shops, etc. However, there is lack of formal instruction to direct his attention mechanisms and transform input in output, because of this, he needs to develop, by himself, learning mechanisms, so that he can assimilate the inputs [...] He begins thus to associate images when he sees the news on TV, to compare a book in English to its translation in his mother tongue [...]
However, no topic was raised that was too difficult to negotiate. There was no discordance between participants, as it is clear in the examples (except for posting 15, Example 3, in which Luis indirectly disagrees with Joana as she tries to respond to Lucia’s question). Therefore, their exchanges within Moodle may be said to match the discourse of a discussion and exhibit an emerging feeling for what an argument can be, according to the Toumlin Model of Argumentation (see Example 4). Or else, there are sequences of claim-warrant-ground but challenges and synthesis hardly existed.

Both the ability to structure a discussion and develop an argument are part of traditional literacies. In addition, both are necessary for the development of digital literacies. However, criticism of their colleague’s texts and contributions is still a competence that needs development. It is also in order to mention that face saving mechanisms and learners’ knowledge that they were, after all, writing for their professor, may have affected the textual representation of what they really thought of their colleagues’ texts and contributions. This issue remains to be better understood as well as possible cultural factors that may affect peer criticism.

**Reflective-critical thinking: developing digital literacy**

As the participants read, replied or commented upon peers’ postings, they used the opportunities they had to relate information to previous knowledge, readings, the movie and previous postings, reflecting about the issues at hand and integrating information whenever possible. The high presence of private verbs (“think”, “believe”, “understand”, “notice”), retakes and citations are indexes of the level of reflexivity present in the corpus. The use of private verbs also projects an identity upon participants as if they were saying “I am making this claim, but I have thought over it.” “I am a thinker.”

According to Bateson (1973; cited in SORENSEN, 2004), meta-reflection is both a pre-requisite and a result of learning. If this is so, the discussion board did afford learning. This interpretation is further reinforced by the theoretical view of writing as a symbolic tool toward the disco-
very and amplification of knowledge (SORENSEN, 2004). In Sorensen's view, writing promotes reflection and thinking at the shared collaborative and interactive levels, and “learners cannot interact online without being prompted to reflect at a meta-level about the content of his/her comment” (p. 254). This seems to be the case of learners in this study. They reflected on discourse and demonstrated to be able to engage in the process of analysis. Such an ability is part of critical thinking, a competence that involves a variety of skills. According to Halpern (1996), in addition to reflective thinking, critical thinking includes the ability to solve a problem by making inferences, comparing and evaluating different points of views, explaining by citing evidences and drawing an appropriate conclusion for a particular context and task at hand. A close look at what learners did in the forum shows that they actively and purposefully analyzed the grounds that supported their claims for Viktor’s learning of English, even though they did not evaluate the appropriateness of the various reasonings by their colleagues.

Social engagement: developing digital literacy

Discourse has been described as being socially constitutive and socially conditioned (WO-DAK, 2002). This means that the online discourse of the undergraduates, as it unfolded, created relationships between participants and built their identities. Ways of being perceived by others and ways in which others are being perceived emerge from the way participants’ relate to each other in the discussion board.

The first aspect under consideration is whether the undergraduates are seen as collaborating towards the completion of the task. An indispensable element to collaboration is that all those involved in a collaborative task contribute more or less equally (INGRAM; HATHORN, 2009). Table 2 illustrates their pattern of participation.

<table>
<thead>
<tr>
<th>Learner</th>
<th>Postings</th>
<th>Date and time</th>
<th>Target</th>
<th>Retakes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maria</td>
<td>1</td>
<td>13/06 12:01</td>
<td>Group</td>
<td>Maria (2 x)</td>
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</tr>
<tr>
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<td>30/06 20:04</td>
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</tr>
<tr>
<td>Pedrita</td>
<td>2</td>
<td>14/06 09:01</td>
<td>Group/Joana &amp; Maria</td>
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</tr>
<tr>
<td>Mariluce</td>
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<td>Group</td>
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<tr>
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<tr>
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<td>12:34</td>
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<td>13:00</td>
<td>Lucia /Group</td>
<td></td>
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<tr>
<td></td>
<td>20/06</td>
<td>13:15</td>
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</tr>
<tr>
<td></td>
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<td>22:30</td>
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</tr>
<tr>
<td></td>
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<td>12:07</td>
<td>Group</td>
<td></td>
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<tr>
<td>Marcela</td>
<td>1</td>
<td>27/06 20:15</td>
<td>Group</td>
<td>Juliana &amp; Lucia</td>
</tr>
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</table>

Table 2: How participants related to one another in the corpus.

All the undergraduates participated once, a few a second time and none participated a third time. They also did respect each other’s contribution and even used peers’ voices to warrant their own claims. Although there is not direct interaction among them, there are retakes and some participants are addressed indirectly (Table 2). They do acknowledge each other’s contributions, but establish a pattern of absence of questions. There is one single question in the corpus, uttered by Marcela in posting 9 and no disagreement with each other or explicit evaluation of others’ contributions. Luis (posting 15) was the only one to do so, indirectly, as he responded to Joana’s attempt to respond to Marcela (postings 14 and 9 respectively), as transcribed in Example 4.

**Posting 9: Marcela (sic)**

[..] Não entendo como Viktor poderia entender a complexidade da situação enquanto fazia o papel de tradutor, como ele conseguiu pensar e perceber rápido que se os remédios não fossem para uma pessoa ele poderiam não ser “barrados”; e quando o diretor lhe dá a chance de asilo político ele não entende que tem apenas que afirmar ter medo de seu país (tendo ou não). Poderia ser um engano do filme ou poderia ter alguma explicação o seu entendimento “melhor” em situações diferentes?

**Posting 14 – Joana (sic)**

Comentando brevemente o questionamento feito pela Marcela “Poderia ser um engano do filme ou poderia ter alguma explicação o seu entendimento ‘melhor’ em situações diferentes?” Acredito que o filme quer justamente mostrar que conforme Viktor convive no meio linguístico da língua alvo ele começa a ter input compreensível. E ele entra no período de transição de sua língua mãe para a língua alvo e sua compreensão tem uma melhora com os recursos de comparação que ele utiliza na obtenção de vocabulário da Língua Inglesa, Vale destacar também, que nesse momento em que ele consegue burlar as leis dentro do aeroporto o mesmo se beneficia de algo que para ele já havia sido um problema, o fato dos nativos não conhecerem e dominarem sua língua materna.

[..] I don’t understand how Viktor could understand the complexity of the situation while performing as a translator, how could he think and notice fast that if the medicines were not for a person they could not be “intercepted”, and when the director gives him the opportunity to ask for political asylum he does not understand that he only has to declare that he fears his country (true or not). Could it be a mistake of the movie or is there an explanation for his “better” understanding in different situations?

**Posting 4**

To comment briefly on the question brought up by Marcela “Could it be a mistake of the movie or is there an explanation for his “better” understanding in different situations? I believe that the movie actually wants to show that as Viktor lives in an environment where the target language is spoken he begins to have comprehensible input. And he enters a transition phase from his mother tongue to his target language and his comprehension improves with the comparison strategies he uses to learn vocabulary in English, It’s important to highlight as well that in this moment that he manages to bypass the law inside the airport, he benefits from something that has already been a problem for him, the fact that Americans did not know or understood his native tongue.
Posting 15 – Luis
Acho que o entendimento de Viktor (na minha outra postagem digitei Victor, desculpa;) varia justamente por ele estar nesse momento instável da interlíngua, testando hipóteses, alguns imputs que ele recebe podem conter mais pistas contextuais do que outros, o que influenciaria diretamente na compreensão do que lhe é passado. Ao meu ver, ele ligou essas pistas ao conhecimento que ele já adquiriu e montou informação como um quebra-cabeças, chegando a uma conclusão [...] 

I think Viktor’s understanding (in my previous posting I typed Victor, sorry;) varies exactly because he is in this instable phase of the interlanguage, testing hypothesis, some of the inputs that he notices may have more contextual cues than others, which influences directly his comprehension of what is going on. In my understanding, he linked these cues to the knowledge he had already and build up information as in a puzzle, reaching a conclusion [...] 

Example 4. Questions and Responses in the corpus.

In addition, even though their discourse is mostly other-directed, when the participants produce a self-directed discourse, the aim seems to be to promote a tentative non-confrontational mitigating image, the signals of which are “I think”, “perhaps”, “I believe” (see a sample in Example 4 above). Another aspect of their discursive construction that deserves analysis is the use of indirect evaluations, indexes of socio-affective support, as shown in the next section.

Socio-affective collaborative support

Albeit in a small scale, due perhaps to the lack of intimacy with the platform, participants share implicit support by praising each others’ contributions implicitly. To cite the contribution of a colleague may be seen as having the function of building trust (Example 5):

Example 5: Citing to build trust.

The same holds true for setting a friendly tone for the discussion with off topic comments such as “as meninas” (the girls), “por coincidência, a sessão da tarde exibiu esse filme hoje e pude assistir de novo :D” (by coincidence, the movie was on TV this afternoon and I could watch it again :D). The presence of an emoticon further strengthens the affective relation which is under construction by means of the highlighted expressions.

All in all, the undergraduates’ discourse foregrounded certain aspects of their identities: affinity with colleagues and ability to collaborate and complete the task. In this process, they adopted different identities for themselves. There are those who create synergy, those who teach, those
who analyze, those who simply retake what a colleague had said, but the know-it-all identity has not been found: Knowledge in the forum is distributed.

**Structure of participation**

The structure of participation seems linear at a first look, as Table 2 already demonstrated: A participant initiates and others develop topics, some cite each other's contributions and highlight what has been mentioned. In general, participants address the group. However, a closer examination of the exchanges reveals a conversation-like atmosphere given the friendly tone, greetings, compliments to others, closures in addition to discourse strategies (retakes; use of gerunds, qualifiers, first person pronoun, emotion and conversational markers such as “bom” /well/). These features project a conversation like tone to a discourse that would otherwise be found at the academic end of the continuum.

Figure 1 illustrates the structure of participation. Retakes are represented by curved arrows when a specific idea in previous postings is repeated. They are represented by a triangle when most ideas in previous postings are integrated.

![Figure 1: Linear but conversation-like participation structure](image)

It is also worth mentioning that the professor participated four times and directed her postings to specific students and to the group as an overarching participant. This atmosphere, however, is constrained by writing, a medium that has led them to use language which they would not have used if in face-to-face interaction, by technology (they had time to think, read
and integrate information), and by the context (they know the professor is assessing their participation in the forum and, disguisedly, they are speaking to her). The subsequent section further analyzes the constraints in the corpus.

All in all, they did engage socially to perform the task and met the communicative purpose of discussing FL concepts in the light of the movie. In this respect, their behavior met the expectations of digital literacy in academia. They supported each other by citing their colleagues to build trust; drew on socio-affective strategies to establish a friendly atmosphere, and participated at least once in the forum, emulating a conversion in a medium constrained by writing.

**Constraints**

From the theoretical view of Dron (2007), participants act as constraints on each other. Each claim posed, limits the choices of those who follow, shaping the exchanges. However, as Dron (op.cit. p. 163) himself observes, it is simply “the nature of dialogue,” and if it were not so, the exchanges would be a set of independent statements, not a discussion. Therefore, it is expected and desirable that a discussion becomes constraining in this sense. This was the case of the discussion board under study.

Temporal sequence also limited the choices and breath of the discussion. That is, messages that were posted early in the process got a few or no responses/comments. Maria, for example, was the first to post. Her posting was retaken once in posting 2 and never more. Participants who posted last had no choice but to pull together much of what had already been said (Luis and Juliana). Their postings got very close to becoming a synthesis of previous postings. In other words, much of what seems linear is a consequence of the parallelism of threaded forums (DRON, 2007).

**Final remarks and implications**

Participants in this study were seen to construct discourse by providing claims, grounds and warrants, demonstrating an emerging capacity to build arguments. A look at the topic flow provides evidence of the variety of sub-topics developed along the discussion to complete the task as well as evidence of the participants’ ability to integrate information from a variety of sources. Participants also elaborated on another’s contribution, yielding shared understandings as well applied theoretical concepts to explain Navorsky’s learning of English in the movie. These may be seen as signals of knowledge construction and digital literacy of an academic nature. However, they hardly addressed, questioned or evaluated each other directly. Collaboration at this level of meaning construction is wanting and illustrates that their digital literacy is still a competence in progress. Other skills which are part of academic digital literacy were there though.

Structurally, the relation among postings is high, given the discourse strategy of retaking one another’s contribution and citing colleagues to build trust. These retakes projected an interaction-like atmosphere as well as created cohesiveness, yielding a very high level of texture among the postings. This also allows us to say that subjectivity and reflexivity were high. These are expected skills for digital literacies of an academic nature too. At the same time, students’ participation still displays contours of an interconnected mode. (WILLIAMS, 2005). Here too there is room for growth for digital literacy to be fully in play. There were cycles of exposition and
analysis and they did express agreement and took positions, possibly restructuring their knowledge systems. However, they hardly disagreed with colleagues or identified negative aspects in their postings to characterize a constructed mode of participation.

In addition, it is important to remember that while “students’ cognitive processes do not differentiate between classroom and online settings” (STIEGLER-BALFOUR, 2015: 281), the way they deliver information in face to face and online classes should. Writing for an academic discussion forum demands a high level of digital literacy. To demonstrate this ability online demands reflection and the integration of several sources of knowledge (readings assigned by the course, in class discussions, peers’ contributions in the discussion board, the context itself etc.). If the communicative purpose was to allow reflection on the main tenets of foreign language teaching and learning, the discussion board may be regarded as having been successful. The medium seems prone for the integration of knowledge and co-construction of meaning, skills that highly correlate with academic writing and the development of digital literacies. Therefore, from this perspective, the online asynchronous discussion board has fostered academic digital literacy. Participants’ discourse does relate to digital literacies of an academic nature given that competencies known to constitute this practice were present: for example, learners did filter and integrate information; they did collaborate and share knowledge; they did use and reuse traditional literacies. From a sociocultural approach to learning and the mind, participants’ writing united the cognitive to the social level dynamically, making their act of participating in the forum an inseparable part of their academic discourse and digital literacy development. Their ability to be critical of text and colleagues’ contributions needs development though.

They seemed to treat the medium and their colleagues with reverence. Reading and writing critically to produce academic discussions involves a wider set of digital behaviours and practices, among which is the higher level capability of being critical of peers. Their discourse conveyed the perception that a collaborative academic discussion could/should do without challenges or fully interacting with their peers. If undergraduate students are to overcome the traditional university lecture mode and more easily engage with the medium, they will need to improve their ability to be critical of texts and others’ participation in online discussion boards.

This latter evidence needs to be explored further, as academic literacy as a whole, and that which is digitally mediated ought to include peer criticism. In this respect, future studies need to seek understanding of how human interaction within an online environment may be affected by computer mediation as far as the ability to make criticism is concerned as well as deepen understanding of its possible affordances and constraints for the development of digital literacies of an academic nature.

The pedagogical challenge then is to design collaborative tasks that foster students’ critical and open-minded questioning and reasoning. Of necessity, tasks of this nature involve collaboration and allow participants to go beyond content and learn the subject as they solve a problem by interacting with other points of view. Desirably, tasks oriented to foster critical thinking also shape interaction in such a way that opposing positions and weaknesses of participants’ own positions would come to the floor. There are multiple possibilities to reach this goal, such as analyzing a current event, running case studies or comparing different points of view on a con-
troversial issue related to the subject at hand. In any case, the task should be challenging and lead learners to seek reasons and evidence in a less-structured learning environment that pushes them toward exploring what they think and evaluating others’ thinking.

Teacher education programs cannot neglect the relevance of exposing to and engaging prospective teachers in the design of problem-based tasks for online collaboration tools. Having prospective teachers engage in and interact to solve an open-ended problem related to their subject matter, to digital literacy, and how to design tasks that foster critical thinking may assist them in experiencing what the approach is and in making it a reality in their own classrooms. These are, as highlighted by the Joint Information Systems Committee of the United Kingdom, (JISC, 2014, p.1), capabilities which fit someone for living, learning and working in a digital society.

**Note:** The corpus which this study draws on has also been the subject of research that will be presented at ICICTE 2016 in Greece, from July 07 to 9th.

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**References**


Ingram, A.; Hathorn, L. Methods for analyzing collaboration in online communications. In: Timothy, R. (ed.) *Online collaborative learning: theory and practice* (Chapter X, 215-


APPENDIX A: ALICE’S POSTING IN PORTUGUESE (sic)

Algo que também pude perceber foi que entra em jogo o fator idade. Ele aprende a segunda língua já na idade adulta, e consegue aos poucos desenvolver certa fluência, com defasagem apenas na pronúncia, criando um sotaque (Juliana).

A aprendizagem da segunda língua feita por criança e por adultos é realmente distinta. Seguindo pelo texto de Quaresma de Figueiredo, o fator idade se distingue pela velocidade. O adulto já tem estratégias cognitivas para passar por uma língua. Em apenas 1 mês ele pode entrar no momento intermediário (daí pra frente ganha ritmo mais calmo). Por isso, Viktor consegue, assim que domina suas emoções e vê a necessidade de entender o que está acontecendo ao seu redor (a situação do país de origem implica em seu destino no aeroporto), assimilar o noticiário e ganhar uma fluência que não tinha. Há, claro, a defasagem da pronúncia. De acordo com Figueiredo, (p. 41) “as crianças tem um melhor desempenho na pronúncia de uma língua estrangeira do que os adultos”. A partir do momento em que ele passa a unir os significantes aos significados, há um momento em que Viktor pega revistas no seu idioma e revistas em inglês para comparar as palavras - com a união dos fatores acima citados, ele teve mais chances de compreender e apreender novos conhecimentos, e passou a adquirir mais vocabulário em inglês. (Pedrita)

Viktor começa a estudar ainda mais quando consegue fazer dinheiro. Ele compra livros bilíngues para comparar sua língua nativa com o idioma falado no aeroporto (inglês). Ele utiliza uma estratégia de aprendizagem, de acordo com seu filtro afetivo, e assim passa a entender as “conversações” melhor.Cenas e pontos interessantes do filme:

• De início, as placas, os papéis colados no telefone, e principalmente os formulários tornam sua vida no aeroporto caótica já que está tudo em inglês. Os símbolos o prejudicam também quando o diretor utiliza frutas e salgadinhos para ilustrar sua situação no país. Quanto mais informações visuais dão a Viktor, mais confuso ele fica.


• Sempre que Viktor se emociona e/ou perde o controle (ex: quando ele percebe que o país está em guerra), isto é, em situações que demandem esforço ou emoção, ele fala na língua mãe.

De acordo com texto de Figueiredo (p. 51), Krashen, na hipótese do monitor, postula que “o monitor ou fiscal só é posto em prática, se três condições foram cumpridas: tempo, foco na forma e conhecimento das regras”. Viktor tem tempo de sobra no aeroporto, visto que, ele não pode sair dali, tem a chance de aprender com intensidade. Quanto ao foco na forma, ele só adquire atenção aos próprios erros quando vai ganhando fluência. De início, ele não compreende, por isso, diz só “yes” a tudo. Ele passa também a notar o conhecimento das regras com o material que compra (livros) na livraria, mas ainda apresenta dificuldades de gramática quando sob pressão.

Tudo o que liga o ser humano a ação é aprendido primeiro. É a necessidade. Ele tenta sobreviver pelas ações. Faz uma cama (utilizando seus conhecimentos profissionais nativos) e consegue comida (primeiro: colocando carrinhos de bagagem no lugar / depois: o funcionário das bagagens faz um contrato verbal com ele -> te dou comida se me ajudar a conquistar a atendente).

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