

## Reading and writing in a KBC: correlation or independence?

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### Introduction

Many studies evidence in on-line environments the “lurking” phenomenon (Nonnecke & Preece, 2001): some members of the group that generally tends to read notes of the others, but do not write anything. In their review of the Internet as a form of mass media, Morris and Ogan (1996) point out the paucity of information on lurkers. They ask the following questions about lurkers, their number, and their nature: “To what extent do lurkers resemble the more passive audience of television sitcoms? And why do they remain lurkers and not also become information providers? Is there something about the nature of the online activity that can stimulate their participation?”

We can explore these questions considering the implementation of the Knowledge Building Community model (KBC hereinafter) (Scardamalia, 2002) at school. The “modus operandi” of a KBC foresees that the students realize a process of knowledge building mediated by the activities of reading and writing. The KBC model (Scardamalia, 2002; Scardamalia & Bereiter, 2006), in fact, is focused not on learning but on knowledge building: it means, both on the creation and the development of ideas that are useful for the whole community, learning is a by-product of this process. In connection with the theoretical model also an online environment, called Knowledge Forum (KF hereinafter), was developed. Many research results about the implementation of the KBC model in classroom show positive outcomes from educational point of view, in writing and reading and showed no deficit in other areas. The students also show more sophisticated understandings about knowledge and learning (Scardamalia et al. 1994). Young students working in a KB perspective generated theories and explanation-seeking questions, designed experiments to produce real-world empirical data to support their theories, located and introduced expert resources, revised ideas, and responded to problems and ideas that emerged as community knowledge evolved (Zhang, Scardamalia, Lamon, Messina & Reeve, 2006)

In a KBC, then, we can expect that reading and writing are correlated activities because the process of collaborative knowledge building demands that writers reads also other people's notes, (to be able to elaborate on ideas in relation with the other members of the community. Is this happens really or reading and writing are independent activities, going therefore to create a phenomenon of lurking? This is the question on which the present study is focused.

### Method

#### *Participants*

The activity has been involved 54 pupils of 3 classes of primary school: an Italian classroom of 2<sup>nd</sup> grade, composed by 20 pupils (9 males and 11 females) and two others classrooms from Québec, Canada, respectively one class of 1st-2<sup>nd</sup> grade composed by 14 pupils (8 males and 6 females) and one class of 2<sup>nd</sup>-3 grade, composed of 20 pupils (8 males and 12 females).

#### *Procedure*

The goal of the classrooms activities concerns the differences among the two cultural traditions of the main common festivities of the two countries, Christmas and Easter, in Italy and Québec. The activity has been implemented with reference to the Knowledge Building Community model (Scardamalia, 2002) as an inquiry about their own tradition, in order to create exchanges among the students of the different countries, and it was organized in three different periods:

- a) The first period was dedicated to the construction of the community and the familiarization with KF. Every class had three individual views at their disposal:
  1. “We introduce ourselves”: to favour a good climate for collaboration, for each classroom a “self presentation view” in KF was created. Each student was requested to insert a short note with a self-description, with the possibility to read the other presentations and to ask questions.
  2. “The mysterious object”: to familiarize the students with the making hypothesis process, a picture of an old camera (of the last century) was presented to the students: they were invited to make their hypothesis about the function of that object.
  3. “The line of time”: to introduce the method of the reconstruction of event, that would be used in the next periods, the students were engaged in find and give information about their personal history;
- b) The second period foresaw 5 different views in common among the three classes, focused on different topics of Christmas traditions: “Decorations”, “Characters”, “Traditional Lunch”, “Celebrations”, “Holidays”; in this period the activity was organised in these phases:
  1. the students developed an inquiry about the Christmas traditions in their own country throughout face to face discussions in classrooms, to identify the main aspects of their tradition for the presentation to the students of the other country;
  2. The students organised in groups of inquiry, have found information about the aspects discussed in the previous phase;
  3. The students inserted notes concerning the information founded about the specific topic of study. Each KF note written by Quebecois students was translated from French to Italian; the notes written by Italian students were translated from Italian to French.
  4. At the end of the inquiry activity, a videoconference was organised, where each group of inquiry prepared a little presentation concerning its own specific topic of study.
- c) The third period has been dedicated to Easter traditions with a view in common among the three classes; the activity was organized with the same phases foresaw in the previous period.

### ***Tools***

Two technological tools were used: Knowledge Forum (KF hereinafter) and Via.

KF is an asynchronous online environment based on a common database where the users can write notes (written texts) with either graphs or images. The notes can be organized in *views*, that is to say spaces devoted to a discussed topic. Every authorized user can connect to the database, read somebody else’s notes and insert some new ones that can be connected to the others through some links. In that case the linked notes are called *Build on*. This happens, in general, if the author thinks the note he/she is writing could have some connections with the one it’s being connected to, and for this reason, it can represent a further development of the knowledge of the discussed topic. There are some pre-defined linguistic structures supporting the discussion, called *Thinking Types*. They have the function of scaffolds, creating some new common categories of discourse building.

“Via” is a synchronous on line environment created to support videoconferences among a group of people. Each user can have an access with a personal username and password in a common

virtual space where it is possible to interact with others in a multimedia way, using video camera and microphone. In the common space it is possible also to share photos, videos to support the exchange activity among the participants.

### ***Data analysis***

The data have been collected using Analytic Toolkit, a specific software created to track the activity in KF: for each student it was possible identify how many notes he reads and writes in each view for each of the three periods.

These data have been analyzed with SPSS software, carrying out for every class and the three periods of the correlations between written note and the note read from every pupil, using the coefficient Rho of Spearman, considering the little size of each classes.

### **Results**

The results obtained are presented in tab. 1

**Tab1. Correlations between reading and writing activity in the three classrooms**

<b>Rho of Spearman</b>	<b>1<sup>st</sup> period</b>	<b>2<sup>nd</sup> period</b>	<b>3<sup>rd</sup> period</b>
<b>Italy</b>	0,28	0,61**	0,55*
<b>Quebec 1</b>	0,30	0,49*	0,57**
<b>Quebec 2</b>	0,20	0,81**	0,17

\*statistical significance  $p < .05$

\*\* statistical significance  $p < .001$

The data evidence an absence of correlation in the first period in all the three classes; a presence of positive correlation in the second period for all the three classes and a presence of positive correlation in two classes on three in the third period.

### **Discussion**

It is possible hypothesize that at the beginning of the work, reading and writing in KF are considered from the pupils two independent activities and they don't understand the necessity to read the ideas of the others for being able to write own ideas connected to those other people's ones. The awareness of the relation between writing and reading seems to emerge in all the three classes in the second period, when the activity of inquiry is more organized, and is maintained for two classes on three in the third period.

In their analysis of the lurking phenomenon, Nonnecke and Preece (2001) identify some reasons for lurking, expressed by lurkers interviewed: a) personal aspects (e.g: to be anonymous, and preserve privacy and safety or to be shy about public posting); b) group discussion aspects (e.g. had too many or too few messages to deal with, because too many messages are burdensome, and it is easy to forget low traffic groups; or received poor quality messages, e.g., messages are irrelevant to topic or had little information value) ; c) organizational aspects (e.g. to have limited time because other things to do are more important). Considering these issues, in our case we can hypothesize that the implantation of the KBC model in this international collaboration can have solved the barriers to the participation concerning these three dimensions.

But we need to highlight some limitations of this pilot study. For instance the missed control of some factors mentioned above, that can affect the lurking phenomenon: e.g. the students personal characteristics in terms of tendency to be shame in public on line discussions; the evolution of the on line discussion in the views in terms of number of messages; the time spend on KF and organizational constraints, to verify if it was equally controlled/comparable between the 3 classes; the teacher's understanding of the task, KB & KF and assistance offered to students; On the base of these data, and considering these limitations, we can identify some research perspectives to analyze the role of some factors, regarding the relation between reading and writing in KBC implementation and the three dimensions crucial for lurking: a) personal aspects of participants, in particular concerning the skills to participate in a public on line discussion but also the metacognitive skills inherent KB; b) online discussion aspects: in particular view organization and note distribution in KF ; c) design organizational aspects: in particular time constraints for the on line activity and teacher strategies to support knowledge building.

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