Online sharing of written narrations
to gain awareness of personal beliefs

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ABSTRACT

Addressing learners' beliefs is an effective way to improve education, and is considered particularly important in teacher training. It is, however, a difficult task, because beliefs are often unconscious. In this paper, we argue that sharing personal narrations with the support of web technology may constitute an effective approach to beliefs' elicitation. We illustrate this proposal by discussing two experiences in which a group of trainee teachers shared individual narrations online, intertwining and comparing them to form a concrete ground for joint reflection. In both cases the experience proved successful, which underlines the potential advantage of the proposed approach.

Categories and Subject Descriptors

K.3.1 [**Computers and Education**]: Computer Uses in Education – *Collaborative Learning*.

General Terms

Human Factors.

Keywords

Personal narrations, beliefs, online sharing, self-awareness, teacher training, narrative learning, collaborative learning.

1. INTRODUCTION

Beliefs are an important form of tacit knowledge [9]. They have increasingly been object of study in the educational field in the past couple of decades because they have been recognized to influence the way learners construct new knowledge [8] as well as teachers' instructional practice [13].

Addressing beliefs related to a disciplinary subject, as well as to its teaching and learning, is therefore very important in teacher education. This, however, is not trivial, because beliefs are often unconscious and difficult to elicit [8, 9, 13]. The approaches most usually applied to this end do not appear completely satisfactory in that the outcomes of direct investigation methods (interviews and questionnaires) may be biased by the respondents' conscious reasoning, hence missing to really reveal unconscious beliefs,

while indirect approaches (inferring beliefs by observing teachers' activity) may be unreliable because apparently similar practices may be determined by different underlying reasons.

In this paper, we argue that a suitable narrative activity carried out with the support of web technologies may provide an effective way to elicit beliefs. We illustrate this idea by discussing two experiences in which a group of trainee teachers shared online individual narrations, comparing and combining them to form a concrete ground for joint reflection. Some final comments discuss the dynamics carried out in the process.

2. WHY NARRATIVE?

The definitions of narrative given by scholars working in different fields [7] highlight the presence of causal and temporal connections instinctively perceived by humans among the sequence of elements that form a story: such elements, together, determine the overall meaning of the story and, at the same time, take meaning from their position within it. This allows people interacting with narrative (in the sense of both invented stories and narrations of events [12]) to infer more than it is explicitly said [2]. Such instinctive perception of logical connections among story elements leads people to understand stories as meshes of interrelated elements and gives them the potential to communicate ideas in a holistic way, conveying rich and possibly complex messages in simple form [4].

Narrative is recognized to be an important natural expressive form for human beings, who organize their experience and memory mainly in this way [1], and instinctively make good stories personally relevant [10]. Moreover, narrative can aid to overcome the difficulty of abstract thinking by helping reflection to be grounded in concrete examples. For all these reasons, narrative can provide a powerful frame to help people represent experiential knowledge and explicit tacit one, letting beliefs emerge from the description of facts, events and feelings and constituting a good starting point to support self-knowledge and reflection.

Awareness of beliefs and reflection are connected: as McDrury and Alterio [11] point out, reflection involves the self, helps spotting beliefs and favors the transformation of conceptual points of view. The concreteness introduced by narrative appears useful in this respect, because reflection is more empowered by reference to action and context than by abstract ideas.

It is not surprising, therefore, that narrative activities have been increasingly used in education, not only in school teaching but also in the training of both pre-service and in-service teachers. In relation to addressing teachers' beliefs, for instance, Chapman [3] applies a narrative approach in pre-services' self-study to detect beliefs possibly conflicting with the views of mathematics

education promoted in her training program. Her approach, however, differs from that applied in our examples because it does not include the online social sharing which, on the contrary, is a key point for the success of the experiences described in the next section.

3. TWO EXPERIENCES

3.1 A blog for trainee language teachers

Dettori and Lupi [5] report the case of a group of eleven pre-service language teachers who were requested to post stories of personal experiences on a shared blog created on purpose. This activity represented the online module of a blended course on multimedia technology for French teaching. Two narrative tasks were assigned, one after the other, specifying that a concrete story was requested, not general reflections. The first assignment concerned stories of good and bad language teachers that the trainees had experienced while students. The second task consisted in narrating some episodes which determined the trainees' interest for French language and culture. These narrations aimed to provide a concrete basis for reflection, helping the trainees to become aware that they had (possibly unconscious) beliefs, rooted in their student's experience, about being a good language teacher, as well as to call their attention on aspects they could exploit in their teaching to raise students' intrinsic motivation.

In order to stimulate the participants to actually read their colleagues' stories and comment on them, both narrations were associated with a sort of game, i.e., stories were posted anonymously on the blog and each trainee was requested to comment on each story, guessing who was its author. This game-like activity aimed to call attention to details, similarities and differences, stimulating the comparisons of ideas. In order to summarize the knowledge gathered with the two narrative activities, the trainees were finally requested to build a joint characterization of teaching practices to be supported or avoided, by confronting and discussing the variety of elements emerged in the stories. At the end of the course, a questionnaire was assigned with 5 closed questions and 7 open ones, to investigate if the trainees had enjoyed the experience and how much they felt the narrations had contributed to self-knowledge, reflection and professional growth. The questionnaire had the aim to contribute to activity evaluation by gathering trainees' opinions and at the same time to stimulate individual reflection on the experience carried out.

The activity produced satisfactory outcomes. All trainees posted their stories and most of them commented most of the posts, intrigued by the playful task of guessing the authors. They recalled what they liked and disliked in their school days, looking for the underlying reasons and acknowledging the importance of this recalling for a teacher ("*Remembering our student experience may be the key to understand our students and their problems*"). The stories about old teachers included a variety of aspects, both positive (e.g., "*His strength relied in his deep sense of impartiality*"; "*Behind her timidity she had a privileged world made of human values, culture and intelligence*") and negative ones ("*what was missing was the relational side*"; "*I thought she was a person with no competence*"). They also spotted what triggered learning and motivation ("*he was teaching not only some topic, but also the how and the why*"; "*Objectivity, …, enthusiasm, …, discipline*") and expressed missed opportunities ("*I feel very sorry for what I have not been able to learn*"), and

some regret (e.g., "*I would have liked to have more opportunities to get to know my class mates*"). They also acknowledge an increased awareness of their own thoughts due to the narrative recalling carried out ("*I realize now while I am writing that I esteemed and appreciated her*"; "*If I ask myself what is a good teacher, I would not be able to draw an ideal picture, but if I think back to my school days, I remember a smile, a funny word that made us forget for a moment our tiredness*").

The comments to the posts highlighted attitudes emerged from the stories that could help characterize, and therefore spot, the various authors ("*Love to travel is a clue, you must be C.*"; "*pragmatic, sensitive and never trivial, you are L.*"). They often pointed out similarities of view ("*You are right, listening to our students is essential*"; "*I agree with you, going to school is a burden, but it is also a privilege*") and often added some other personal memories in the same line.

In the end-of-course questionnaire, the trainees expressed appreciation for this online narrative activity, despite their initial skepticism. They acknowledged its effectiveness to recall one's own experience ("*Thinking back about our student's experiences, at the light of the teaching experiences that we are having now, made us focus more precisely which behaviors and attitudes a teacher should or should not have. This has been a powerful way to reflect on our pedagogical knowledge and on the contents we have been learning in this training school*"). They also claimed that the guessing game had stimulated comparison and resulted thought-provoking ("*Comments obliged us to repeat on the same points and this supported reflection*") and appreciated the fact that the narrative activity had been carried out collaboratively ("*This experience is the proof that sharing can only bring positive effects*") and online ("*Reflection is rooted in writing, reading what others write implies deepening and comparing*"; "*Brainstorming without looking in each others' eyes brings about deeper concentration*").

3.2 A forum for trainee mathematics teachers

Dettori and Morselli [6] describe the case of a group of sixteen secondary-school pre-service teachers who were taking a face-to-face course on Mathematics Education with a focus on the teaching and learning of mathematical proof. This is an important topic in mathematics learning, which is often neglected by school teachers because of unresolved difficulties they have with it and a consequent negative attitude.

A narrative activity was included at the beginning of the course to encourage the trainees to voice their own beliefs on the relevance and difficulties of proof, gaining awareness of the influence of previous personal experiences on their current standing: the trainees were asked, in the first class of the course, within a wider questionnaire aiming to investigate the trainees' competence and attitude on this topic, to individually write down a brief story of their relationship with proof. It was specified that a plain story was requested, leaving any reflection to a subsequent collaborative activity. Then all the individual stories were collected and posted, in anonymous form, in the course's online space, and the trainees were asked to read all stories and comment on them in a forum created on purpose. Additions and comments to one's own story, suggested by the reading of peers' posts, were encouraged.

Also in this case, the activity was successful. The trainees produced a variety of short narrations, reporting personal experiences as students, from which a variety of aspects emerged:

- inclinations and dispositions ("*Usually I don't remember the final proof, what I like is proving*");

- underlying motivations ("*I always loved proofs (even the most boring ones!), because they allow me to verify theses that I would be unwilling to accept otherwise*");

- awareness of difficulties ("*I have always seen proof as something boring. Something where someone smarter than me had been able to find the way to reach his goal*");

- acknowledgement of abilities acquired over the years ("*At the beginning I had difficulties in understanding how to proceed, especially in proofs by contradiction, but once I understood the logical-deductive method, over the time I learned, thanks to a good teacher I had*"),

- acknowledgement of influences received, both positive ("*I loved those proofs that were taught to me by teachers who loved mathematics*") and negative ones ("*I did not have the opportunity to see a lot of proofs. And I was never asked to prove by myself*").

The stories shared also revealed different views of proof (as process to be developed or product to be learned) and different reasons to use it (to convince or to explain). From these stories, beliefs and other affective factors emerged (e.g., feelings of pleasure or fear in relation to creating or understanding a proof; proving for interest or for duty).

The online discussion added some more story elements, together with reflections pointing out similarities or differences and reasons behind behaviors, sometimes objective (e.g. "*for me proof was a necessity, because I never remember things*"), sometimes disguising some difficulty ("*I conceived proof as "something that must be done"… but I never felt a strong motivation to reach the end. I'm a little lazy in this. I prefer to get proofs already done*").

The emergence of all these aspects in the stories and in the online discussion had an influence on the face-to-face course. Spotting strengths and weaknesses had a positive influence on the course development because it highlighted learning needs in relation to mathematical proof that were successively addressed. Comparing positive and negative relationships with proof helped the most proof-oriented trainees to focus on difficulties with this matter of which they were not fully aware before (which they, therefore, were likely not going to address in their future teaching); the trainees who were still experiencing a negative relationship with proof, on the other hand, learned from peers' positive attitudes how they could improve their competence and skills in this respect.

4. DISCUSSION AND CONCLUSION

Three elements appear crucial to determine the success of both activities: the narrative assignment, the support of the web-based communication tools, the sharing within a community of peers.

In both cases, narrations were used to boost trainees' discussion and reflection by rooting them in practical examples from the participants' personal experiences. This introduced a concreteness element in the reflection more than starting from scholarly essays could possibly do. Even though very similar, the assigned narrative tasks focus on different aspects which are of relevance in teacher preparation; in the case of the mathematics teachers, the focus is content-related, as proof is a crucially central topic in mathematics learning; in the case of the language teachers the focus is rather on teachers' ability to communicate with their students and raise motivation. These differences depend on the different aims of the two courses. Congruence of narrative task and educational aims is an important aspect to care when planning a narrative learning activity.

The use of online platforms for sharing and discussion helped to give a structure to the collaborative activity, granting the trainees the possibility to share the stories in non-volatile way, pay attention to details and reflect at individual pace, carrying out in parallel several conversation streams; this allowed all stories and elements emerged to be given equal possibilities to be discussed. The kinds of platform used appeared very much in line with the slightly different character of the discussions carried out in the two cases: the blog helped to put emphasis on each of the stories shared (which were much longer than the stories collected in the other case, and had a rather cared literary form), supporting an easy implementation of the guessing game. The forum, on the other hand, offered a clear and logical view of the discussion threads, which was much appreciated by the mathematics trainees.

Finally, sharing stories among a group of people rather than reflecting individually on one's own experiences, amplified the space of self-knowledge created by the narrative activity. Getting in touch with the stories and reflections of peers stimulated the participants to widen and evaluate their own memories.

Such sharing process aiming to elaborate a wide-angle view on a considered issue gives rise to a kind of collective, hypertextual base of knowledge in which the comments made by the participants highlighting similarities and differences creates links among the chunks of information individually contributed, as schematically shown in Figure 1. This helps the participants to increase awareness of their own position, frame it in a wider context, organize their own knowledge and actually learn from each other.
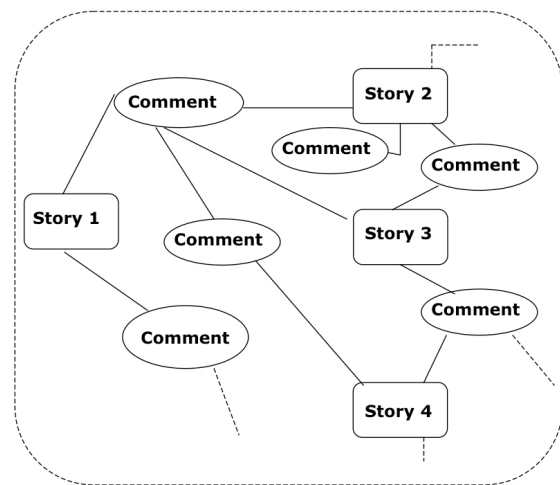

Figure 1. The hypertextual knowledge space created by sharing personal narrations and comments about them. Comments may concern single stories, as well as other comments, or connect several of them.

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