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Classroom discussion and individual problem-solving in the teaching of history: Do different instructional approaches affect interest in different ways?

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Abstract

In this study, 100 Italian eighth graders were divided into two groups to compare the effects of two instructional interventions – the first based on problem-solving through discussion, the second on individual problem-solving – on students' learning of two historical topics (World War I and the economic boom), interest and self-perception of competence in history. The intervention based on discussion produced greater situational interest and understanding of the historical inquiry. The topic of World War I turned out to be an effective source of situational interest. Structural equation models showed that situational interest elicited by the use of discussion and by World War I impacted both on students' individual interest and on self-perception of competence in history.

Keywords: Individual interest; Topic interest; Situational interest; Self-perception of competence; Discussion; Problem-solving; History

1. Introduction

Research in the teaching of history has mainly investigated the effects of instructional approaches on students' comprehension of historical concepts, and the difficulties a young learner is faced with when trying to understand historical facts, very often related to complex social, political, and economical issues (e.g. Booth, 1994; Carretero & Voss, 1994; Spoehr & Spoehr, 1994; Wineburg, 1994), whereas the motivational aspects of learning history have received little attention. In fact, history seems to be one of the most difficult subjects for students to understand, due to both the nature of the discipline and the still prevailing use of traditional teaching approaches, which emphasize the recall of facts and simple cause–effect chains (Booth, 1994). A thorough understanding of history implies the recognition that several possible causes and consequences may be invoked when reconstructing the past, often with no certain or ''true'' conclusion. For students it may be very difficult to manage such complexities, especially if they are not prompted nor prepared to do so; therefore, they may view history as terribly dull because it requires memorizing facts in chronological order (Spoehr & Spoehr, 1994). Some authors have suggested that the use of

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multiple sources, when paired with tasks that encourage argumentation, may help students self-generate connections and causal relations among facts, that is the kind of knowledge transformation which is implied by historical understanding (Spoehr & Spoehr, 1994; Wiley & Voss, 1996).

The present study focused on the relationship between interest and various cognitive and motivational variables in eighth graders' learning of history. We wanted to explore whether an instructional approach based on the use of classroom discussion could impact not only on students' learning of historical concepts, but also on their interest and self-perception of competence in history. We also wanted to compare these effects with those of a second teaching approach, based on individual solution of historical problems. In the following pages we will review recent literature on the two motivational variables involved in the study, i.e. interest and self-perception of competence and their relationships, as well as the potential benefits of classroom discussion.

2. Interest research: an overview

Over the past two decades, several studies have been conducted on the relationship between cognitive and motivational variables in specific school domains. Interest, among other motivational constructs, has proved to be a crucial factor in knowledge acquisition. Many studies have shown the energizing function of interest in fostering remembering and understanding learning material, and stimulating students' positive attitude towards a topic (e.g., Boscolo & Mason, 2003; Hidi, 1990; Mason & Boscolo, 2004; Schiefele, 1991, 1998). The role of interest in the acquisition of expertise has recently been conceptualized in Alexander's (1997, 2000) Model of Domain Learning, in which the relationships between knowledge, learning strategies and interest are represented in a developmental perspective. Knowledge includes stored general concepts and epistemological procedures typical of a discipline, and knowledge of specific topics, ideas and events. When interested in a topic or domain, students are more likely to use higher-order learning strategies (such as deep-level comprehension strategies), thus improving their knowledge (Murphy & Alexander, 2002).

Most studies on interest have adopted the distinction between situational and individual interest (Hidi, 1990), which has proved to be particularly useful in analysing learning environments and outcomes. Situational interest is usually considered an affective state, triggered by the attractive, novel, and stimulating aspects of an object or environment (Krapp, Hidi, & Renninger, 1992). Situational interest influences learning by inducing stronger attention to learning materials (Hidi, 1995), and by increasing persistence in the task (Ainley, Hidi, & Berndorff, 2002; Chen & Darst, 2002). In the classroom, situational interest may be activated by the teacher, who manipulates some features of the instructional setting leading to students' positive response to learning (Bergin, 1999). Generally speaking, a temporary state of interest may be stimulated by three aspects of the learning environment: learning activities, interpersonal relationships, and specific topics (Baumert & Köller, 1998). Regarding the first aspect, games, puzzles, and hands-on activities, for example, have been found to stimulate interest, when used to highlight discrepancies and conflicts between old and new knowledge (Goldman, Mayfield-Stewart, Bateman, & Pellegrino, 1998; Hidi & Renninger, 2006; Mitchell, 1993). The creation of imaginative contexts and the use of stories and narratives can produce a novelty effect that can elicit situational interest (Bergin, 1999; Cordova & Lepper, 1996). Regarding interpersonal relationships, social interaction with adults and peers may also stimulate situational interest (Deci, 1992, 1998; Hidi & Renninger, 2006; Isaac, Sansone, & Smith, 1999). Lastly, specific topics may represent a source of situational interest, if they can be easily linked with everyday experience (Brophy, 1999), or if they recall life themes, such as death, violence or sex (Schank, 1979). However, the importance of topics as sources of interest has been mainly investigated in reading research, where it was shown that features such as novelty, intensity, concreteness, visual imagery, importance, and ease of comprehension can be related to different levels of topic interest (Hidi, 2001; Schraw, Bruning, & Svoboda, 1995).

Although the features of an instructional environment that can stimulate situational interest have been analysed in several studies, the concept of ''source'' of situational interest, is a somewhat generic one. A distinction should be drawn between ''sources'' and ''supporting conditions'', that is between factors that trigger situational interest (e.g., novelty or cognitive stimulation), on the one hand, and conditions of the instructional environment that ''prepare the ground for interest'', on the other. Hidi and Renninger (2006) have suggested several forms of social interaction may support the development of interest at various stages. For instance, group works may be helpful to both trigger and maintain situational interest, peer tutoring seem to maintain situational interest, and the interaction with expert models (peers and adults) should support the transition to an emerging and, later, a well-developed individual interest (Hidi & Renninger, 2006). As a whole, social interaction seems therefore to be a supporting condition, rather than