

Contents lists available at [ScienceDirect](https://www.sciencedirect.com)

Learning, Culture and Social Interaction

journal homepage: www.elsevier.com/locate/lcsi

Full length article

The relationship between conceptions of learning and academic outcomes in middle school students according to gender differences

Giuliana Pinto, Lucia Bigozzi, Giulia Vettori*, Claudio Vezzani

Department of Educational Sciences and Psychology, University of Florence, Italy

ARTICLE INFO

Keywords:

Conceptions of learning
Preadolescence
Middle school
Gender differences
Academic outcomes

ABSTRACT

This study was aimed at inquiring the relationships between conceptions of learning and academic outcomes in middle school students, also considering gender differences. Students' conceptions of learning were investigated in 136 participants by means of a self-report questionnaire and their academic outcomes were collected. General Linear Models were used to analyze the relationships among the variables. Conceptions of learning predicted the academic outcomes, even considering gender differences. Conceptions of learning as a 'co-constructive and cultural process' and as a 'personal challenge, self-efficacy and personal growth' were positively related to academic outcomes. Instead, a conception of learning as 'reduction of a deficit through individual effort' was a negative predictor. Furthermore, females showed a higher predictive association between a conception of learning as a 'co-constructive and cultural process' and academic outcomes, compared with this predictive association shown in males.

1. The necessity to investigate the predictive role of conceptions of learning on academic outcomes in middle school students

One of the most significant contexts of life is the educational setting. Individuals are engaged to make sense of the learning process through the construction of personal representations of the learning process world, defined as 'conceptions of learning.' Since the pioneering work of Säljö (1979), scholars have made a great effort in exploring the ways to represent the learning process. Not only what learning is, but also how and when it happens, beliefs about themselves as learners (Cantoia, Giordaneli, Pérez-Tello, & Antonietti, 2011) were involved in the construct. Some recent studies have also demonstrated interesting associations between the ways in which students conceptualize the learning process and gender.

In educational psychology, conceptions of learning are an important psychological construct for teaching and learning (Virtanen & Lindblom-Ylänne, 2010) because of their link with academic outcomes, also in the perspective of detecting theories able to improve learning outcomes (Ligorio, Schwartz, D'Aprile, & Philhour, 2017). The conceptual link between conceptions of learning and academic outcomes should be tracked in the role that conceptions of learning have in affecting motivation (Barger & Linnenbrink-Garcia, 2016) and actions in learning-situations, primarily the approach and selection of learning strategies, that in turn lead to different academic outcomes (Kember, Biggs, & Leung, 2004; Vermunt, 2005). Literature has widely addressed this issue (see, e.g. Klatter, Lodewijks, & Arnoutse, 2001; McLean, 2001; Alamdarloo, Moradi, & Dehshiri, 2013) providing support to the thesis that conceptions of learning represent a significant variable affecting academic outcomes. However, most investigations have mainly been conducted with upper secondary school students and university students (Cantoia et al., 2011; Klatter et al., 2001). Little attention has been

* Corresponding author at: Department of Educational Sciences and Psychology, University of Florence, 12, Via di San Salvi, Complesso di San Salvi Padiglione n. 26, 50135 Florence, Italy.

E-mail address: giulia.vettori@unifi.it (G. Vettori).

<https://doi.org/10.1016/j.lcsi.2017.11.001>

Received 12 October 2017; Received in revised form 20 November 2017; Accepted 23 November 2017
2210-6561/© 2017 Elsevier Ltd. All rights reserved.

addressed to preadolescents attending middle schools. This phase represents a key period for learning, featuring individual specific changes (Kim, Gloppen, Rhew, Oesterle, & Hawkins, 2014) which involve both academic and social-emotional domains (Eccles & Midgley, 1989). Alongside the scarce investigation of the relationship between conceptions of learning and academic outcomes in middle school students, some scholars have raised questions about the directions of effect, such as: *Do conceptions of learning predict academic outcomes, and/or do academic outcomes predict particular conceptions of learning?* This chicken-and-egg problem is clearly illustrated in Marsh and Craven's (2006) research focused on the bidirectional relationship between academic self-concept and performance. The mutually reinforcing constructs, each having an impact on the other, are also shown by Valentine's (Valentine & DuBois, 2005; Valentine, DuBois, & Cooper, 2004) comprehensive meta-analysis. In the light of the above-mentioned issues, the predictive role of conceptions of learning on academic outcomes needs to be clarified through more empirical evidence.

2. Beliefs, emotions, and causal attribution: middle school students' conceptions of learning

In the course of the investigation over time, every theoretical perspective has spread light on some particular elements composing conceptions of learning. Within the phenomenographic perspective (see, e.g. Klatter et al., 2001; Marton, Dall'Alba, & Beaty, 1993) and the socio-cultural perspective (see, e.g. Bruner, 1996) the ways have been identified to consider the content of learning (internal/external), the individual versus social-interactive dimension of learning, the type of relationship between learners and the content of learning (active/passive). In this field of research the first models grew up which could mainly be referred to the five conceptions of learning that emerged from the work of Säljö (1979). This range was composed by conceptions of learning as: (1) increasing knowledge; (2) memorization; (3) application of rules and procedure; (4) understanding; (5) acquiring a new perspective. More recently, the phenomenographic perspective was revalued in the light of the emotional point of view related to the experience of growth and personal change (Marton et al., 1993), duty (Purdie, Hattie, & Douglas, 1996), social competence, such as 'learning is getting on with others, knowing how to communicate' (Purdie & Hattie, 2002) and 'learning as co-constructive and cultural process' (Vezzani, Vettori, & Pinto, 2017). In line with the principal theories grounded in the learning process literature (Weiner, 2010), further conceptions of learning included the locus of control (internal versus external) in explaining the success and failure in learning (see, Liverta Sempio & Marchetti, 2001). Based on the above-mentioned elements, it is possible to consider students' conceptions of learning through an integrated perspective, contemplating beliefs, academic emotions, and causal attribution of success and failure in learning (Liverta Sempio & Marchetti, 2001), able to fully capture the complex representational world of students. Within this particularly rich perspective of conceptions of learning, the instrument 'Learning Conception Questionnaire' (LCQ) of Liverta Sempio and Marchetti (2001) arose. Pérez-Tello, Antonietti, Liverta Sempio, and Marchetti (2005) used the LCQ self-report questionnaire with students aged 15–17 years old to test a model of conceptions of learning which contemplate a multi-dimensional structure (beliefs, academic emotions, and causal attributions). Furthermore, adapting the original instrument by Liverta Sempio and Marchetti (2001), Cantoia et al. (2011) advanced a cross-national application of the questionnaire to students coming from European, American, Asian, and Oceanic countries in order to analyze the structure of their conceptions of learning.

The Vezzani, Vettori, and Pinto (under review, see, also Vezzani et al., 2017) provided a construct validation of the LCQ (Liverta Sempio & Marchetti, 2001) highlighting a model articulated in six factorial dimensions (see, Table 1). Specifically, the first factor conceptualized learning as 'a co-constructive and cultural process' and identified an idea of learning as an intersubjective process driven by discussion and comparison with peers, teachers, and culture in general. It recalled the idea at the base of constructivist and cooperative learning. In fact, according to a constructivist view of learning, social negotiation and interaction are important factors in the construction of knowledge (Loyens, Rikers, & Schmidt, 2007). The second factor was the conception of learning as 'a reduction of deficiency in knowledge through individual effort' which identified an idea of learning as an intra-subjective and quantitative process where a learner had mainly a passive role as 'to really learn I need someone to teach me' and a limited role as 'a student is a person who basically is not yet able to do things that the course of study will teach him'. The third factor was the conception of learning as 'negative experiences and anxiety,' like boredom, suffering, fatigue, and anxiety. The fourth factor was the conception of learning as a 'personal challenge, self-efficacy and personal growth' constituted by self-efficacy, confidence, volition, and personal growth. The similarity with Marton et al. (1993) conception of learning as 'changing and developing as a person' was evident. The fifth factor was the conception of learning as 'internal attribution for success and failure' which reflected a personal involvement and an active role in learning, instead of the sixth factor that was the conception of learning as 'external attribution for failure' that lead to defining students as outsiders of the learning situation.

Regarding the association between the factorial dimension of conceptions of learning with academic outcomes, researchers found that high-level conceptions of learning which mainly conceive it as an active transformation of information as a constructive conception of learning were associated with academic success (see, Dart et al., 2000; Entwistle & Entwistle, 2003), as well as conceptions of learning as personal challenge and growth (Purdie & Hattie, 2002), rather than lower-level conceptions of learning that mainly conceive learning as a passive accumulation of external fragmentary information as *acquisition of facts, reduction of deficit in knowledge, or memorization* (Ellis, Goodyear, Calvo, & Prosser, 2008). Also, positive emotions in learning featured by feelings of competence turned out to be associated with greater academic achievements. An opposite tendency emerged for negative emotions and academic success (Dettmers et al., 2011; Trigwell, Ellis, & Han, 2012). However, a recent study by Postareff, Mattsson, Lindblom-Ylänne, and Hailikaria (2016) with university students demonstrated that negative emotions, like frustration and anxiety, may be beneficial for learning unless they were associated with a sense of incompetence. As regards the academic locus of control, a study by Drew and Watkins (1998) showed that university students with internal locus of control were less likely to use surface learning strategies, which in turn were associated with poorer academic outcomes. Regarding academic outcomes, recent European data (Eurydice, 2010) highlights that gender is a differentiation variable of students' academic outcomes, as well as for choices related to future course of study. Several studies (see e.g., Duckworth & Seligman, 2006; Ruffing, Wach, Spinath, Brünken, & Karbach, 2015)

Download English Version:

<https://daneshyari.com/en/article/6844179>

Download Persian Version:

<https://daneshyari.com/article/6844179>

[Daneshyari.com](https://daneshyari.com)