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## *The use of artifacts in philosophy lessons: a case study*

### **Extended summary**


Artifacts are the basic units of human material culture as objects created by people intentionally and purposefully. The teaching process has its own material culture, didactically shaped artifacts, modalities of use, gestures, spatial positioning in the classroom space, and procedures of artifacts application. The material culture of teaching has developed throughout the history of education, and one of the main factors of its development is the invention of teachers in the introduction and application of new artifacts. Teaching aids and materials are the basic artifacts in teaching, shaped and made to serve and support teaching purposes. The construction of the teaching purpose of the artifacts that are not original teaching aids is the issue explored in this paper, while the aim of the paper is to examine the possibilities of constructing the purpose of such artifacts in terms of teaching.

The general starting point of the research is an assumption that the introduction of new artifacts and respective modes of use is one of the foundations of the teaching profession as a creative practice and the organization of teaching as the development of its material culture. In the paper, we examine the teachers' conceptualization of introducing artifacts in the classroom by presenting the results of a case study exploring the approach of Damir Malešev, a philosophy teacher in "Isidora Sekulić" high school in Novi Sad.

The main question in the case study is how to construct the teaching purpose of the newly introduced artifacts. The question has a special importance in the context of teaching

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philosophy because philosophy is based on abstract concepts, far from immediate experience. How can philosophical concepts be developed from obvious objects and what types of artifacts support the development of an abstract thought? A semi-structured interview was used for data collection, along with an open document (a proposal for teaching activities) as an additional segment of the interview.

The results demonstrate that the teaching purpose of the artifacts is constructed in coordination with the curricular teaching areas and units, methods, and tasks, and in developing teaching activities and student tasks in accordance with teaching units, based on 1) teachers' ideas about the key factors of teaching and 2) the key properties of the selected artifacts. This leads to the selection and introduction of the artifacts, determining their purpose, varying and combining their different properties, devising gestures with artefacts and creating a new artifact for the specific purpose of teaching.

Teacher Malešev emphasizes visual, geometric, and graphic artifacts, a mirror and chess. The properties of the artifacts enable mediation between spontaneous and philosophical concepts, gradually developing abstract thinking by observing geometric patterns and abstract properties expressed in configural concepts associated with philosophical ideas. Learning starts from the immediate material-spatial and gestural environment (the example of chess), moves towards more abstract spatial intuitions, then towards geometric concepts and patterns, and finally towards philosophical concepts such as the numerical foundations of reality in Pythagorean philosophy or the geometric foundations of the universe in Plato's philosophy. By constructing the teaching purpose, artifacts become analogies and representations, exemplifying the teaching content – philosophical problems. The introduction of the artifacts is coordinated with teaching methods. Illustrative demonstration is the primary teaching method, although ostensive gestures of pointing to artifacts can be combined with other teaching methods (such as dialogical method, in which ostensive gestures of pointing at artifacts can lead to a conversation about their properties and the philosophical problems they evoke). The introduction of artifacts is grounded both in philosophy and didactics, aligned with pedagogical and psychological-educational, as well as theoretical-research assumptions.

Teacher reflections and practice are confirmed as inventive and innovative, and teaching as a field of creativity. In addition, the case study demonstrates how teacher invention can develop and enrich the basic units of the material culture of teaching.

**Keywords:** artifacts in teaching, case study, philosophy lessons

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