

Accepted Manuscript

Prototyping a designerly learning through authentic making activities in elementary classrooms

Pauline Gourlet, Françoise Decortis



PII: S2212-8689(17)30055-7

DOI: <https://doi.org/10.1016/j.ijcci.2017.11.002>

Reference: IJCCI 81

To appear in: *International Journal of Child-Computer Interaction*

Received date: 6 April 2017

Revised date: 22 October 2017

Accepted date: 5 November 2017

Please cite this article as: P. Gourlet, F. Decortis, Prototyping a designerly learning through authentic making activities in elementary classrooms, *International Journal of Child-Computer Interaction* (2017), <https://doi.org/10.1016/j.ijcci.2017.11.002>

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

Prototyping a *Designerly Learning* through authentic making activities in Elementary Classrooms

Pauline Gourlet

Université Paris 8, Paragraphe,
Saint-Denis, France
& EnsadLab, Paris, France
pauline.gourlet@gmail.com

Françoise Decortis

Université Paris 8, Paragraphe,
Saint-Denis, France
fdecortis@gmail.com

Abstract

During six months in a French elementary classroom with pupils aged 6-7 years old, we have looked for ways to progressively transform an instructional classroom environment. Our aim was to develop a sustainable *designerly learning* through authentic making activities. In this article, we describe the history of this attempt along with our motivations, with an instrumental approach, i.e., through a description of the activities mediated by the artifacts we have prototyped with the schoolteacher and the pupils. First, we explain what we mean by *designerly learning*, which refers to making activities with a Cultural Historical Activity Theory (CHAT) perspective, extending the focus of making beyond digital literacy and digital fabrication. Then, we describe our prototypes: a series of artifacts, which sets conditions for pupils to engage in classroom's making activities, and for the teacher to facilitate them. Finally, we discuss how such conditions can help scaffold and structure authentic making activities in a classroom context, and therefore designing these conditions might be a prime means to foster a transition toward a *designerly learning* in public schools.

Keywords

Instruments; Conditions; Classroom; Designerly Learning; Making; Research through Design; CHAT

Introduction

There is a growing interest in making and digital fabrication within the learning sciences communities. Recent research, both theoretical and practical [6], have established the opportunities making offers for general education [3,4,13,37]. But the term "making" lacks of a rooted definition. A recent literature review [26] shows that most studies using the term "making" are referring to the engagement of students in programming activities. However, several voices argue toward a broader understanding of making for learning: they advocate for a holistic and *designerly* approach [6,18,33]. Building on these broader perspectives, we explore how to develop a profound and sustainable change in general education toward an integration of making activities in elementary schools' curricula. In this article, we study how the conditions in which making activities occur can act as a lever to foster such change. Working in collaboration with a French school, we have conducted a participative research through design within an elementary classroom, with 26 pupils (6 to 7 years old) and a schoolteacher (56 years old). During the first six months of our study (28 days in total), we came within the classroom, and took on different roles (from observation to facilitation of activities and co-design). Our shared goal was to find ways to engage pupils in a sustainable *designerly learning*, and to transform the teacher's stance for him to facilitate such learning.

Download English Version:

<https://daneshyari.com/en/article/6795233>

Download Persian Version:

<https://daneshyari.com/article/6795233>

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