


Getch: a Web App for Personalized and Cooperative Learning Path Documentation

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Abstract: In order to reduce the cognitive load of students, the web app *getch* supports documenting, structuring and presenting individual or joint learning paths using different types of media (recordings, writings, photographs, videos, formulas or files) depending on a learner's individual preferences. In addition, it allows for various forms of cooperative and co-constructive learning. It was designed to help balance the field of tension between personalized and cooperative learning that is constitutive for inclusive as well as digital learning settings. Due to its conceptual openness, *getch* can be used across subjects and supports participative learning processes.

Keywords: Learning App, Personalized Learning, Cooperative Learning, Cognitive Load, Inclusion

1 Aims and frameworks in the development of the app *getch*

In response to various recent educational challenges, there is a growing need to effectively integrate different existing educational approaches. One such example is the emergence of a research field that combines educational inclusion and digitalization (e.g., [FS21]), which holds increasing significance for educational research and practice. The web app *getch* is based on the theoretical premise that the tension between personalized and cooperative learning is constitutive for both discourses: digitalization and inclusion [Fr23]. Developed in the project “FDQI-HU-MINT”⁴, *getch* can be accessed through the project website, where further explanations can be found (www.hu-berlin.de/fdq).

The central goal of the app is to document individual or joint learning paths using different types of media, allowing students to create a multi-medial record of their learning path through a combination of their own images, texts, videos, or audio recordings. Among other things, this reduces the cognitive load in order to create more mental resources for the actual learning process (cognitive load theory, [CS91]). Based on their documentation,

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students can arrange the individual contents regardless of their medial representation in a suitable sequence using a grid – individually, in groups, and, if necessary, with the support of a teacher. This way, the learners themselves arrange the material in a way that is meaningful to them. Due to the conceptual openness of *getch*, the app can be used in various subjects as well as across subjects, for example, as part of interdisciplinary project work. In this sense, *getch* aims at facilitating learning through self-design and in dialogue with oneself and with others [see SWG19].

2 *Getch*'s Features for personalized and cooperative learning

The app's features for personalized learning include *flexible forms of representation* (learners can utilize different types of media), *a participative design* (the basic setup initially shows an empty "stage" on which users fill and arrange the fields depending on their own inclinations), *individual customization options* (according to UDL-principles), and a possible *support for individual learners* (teachers or co-students can assign predefined interfaces).

Features for cooperative learning follow Wocken's [Wo98] definition and address *coexistent, communicative, subsidiary and cooperative learning situations*. Using the "group stage" function, users can collaborate in content work while exchanging information through the app's integrated chat function. *Getch* allows for both, successive cooperation (e.g. the think-pair-share method: individual documenting, joint sorting) as well as combined workflows from the beginning.

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