ABSTRACT

This bachelor's thesis, presented as a portfolio of educational materials with reflection, focuses on the design and evaluation of a teaching course aimed at solving systems of linear equations for lower secondary school students within the EDU AI environment. The main objective is to provide a comprehensive educational resource that combines traditional algebraic methods with the principles of programmed learning, tailored for home tutoring and enhanced by AI chatbot functionalities and process the subsequent reflection. The first part of the reflection addresses the theoretical background and didactic principles on which the course is built. It then explains the reasons for choosing the EDU AI environment, where the course was developed in the form of an interactive chatbot. This format allows students to follow a branched learning structure, provides educational videos and hints, and thus presents abstract concepts in an understandable and engaging way. The next section discusses how and why the topic was divided into chapters, the methodology used for creating the lessons, and the reasoning behind the chosen default sequence of the lessons. A further chapter focuses on the practical experience of working within the EDU AI environment, describing the tools available for course creators. This includes an evaluation of the design experience in the editor and how the course presentation varies depending on the device used. The course was then tested both with and without the AI features, and the user experience was described and reflected upon. The conclusion assesses the benefits of the course in terms of student effectiveness and motivation, including its potential to reduce inequalities in access to tutoring.