Pre- and post-data of a research conducted at the Department of Early Childhood Education for investigation of attitudes and efficacy beliefs of pre-service kindergarten teachers (academic year 2022-23)

Authors:

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General Introduction:

The Dataset contains the pre- and post-test data of a study conducted at the Department of Early Childhood Education, University of ioannina, Greece was at 2022-23 academic year.

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Purpose of the study:

The objective of this study was to ascertain whether an educational intervention, founded upon the principles of the Inquiry-Based Learning model and utilising the ScratchJr tool in designing Science activities that develop scientific skills in students, can influence the attitudes and the efficacy beliefs regarding science teaching of pre-service kindergarten teachers. A total of 188 students enrolled in the Department of Early Childhood Education at the University of Ioannina in Greece participated in our study. The Dataset contains the qualitative data of our research.

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Research Instruments:

The students' efficacy beliefs regarding science teaching were measured using a translation of the scale Science Teaching Efficacy Belief Instrument (Preservice Version), also known as STEBI-B, developed by Enochs & Riggs (1990). In addition the attitudes of the students about science teaching were measured using a translation of t Science Teaching Attitude Scale by Thompson & Shrigley (1986).

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Description of the data at pre-test Dataset

var1\_0: random 4 digit number assigned to answer sheet

var1\_1: gender

var1\_2: age

var1\_3: year of studies

var1\_4: place of origin

var1\_5: Direction at school

var2\_1 … var2\_22: the 22 items of Science Teaching Attitude scale, by Thompson and Shrigley

var3\_1 … var3\_23: the 23 items of STEBI-B scale by Enochs and Riggs

var4\_1 … var4\_5: statements for willingness to use ICT tools in science teaching

Description of the data at post-test Dataset

var1\_0: random 4 digit number assigned to answer sheet

var1\_1: gender

var1\_2: age

var1\_3: year of studies

var1\_4: place of origin

var1\_5: Direction at school

var2\_1 … var2\_22: the 22 items of Science Teaching Attitude scale, by Thompson and Shrigley

var3\_1 … var3\_23: the 23 items of STEBI-B scale by Enochs and Riggs

var4\_1 .., var4\_10: items that examine the opinions of the students regarding the utilization of ScratchJr as an activity design tool in science teaching

var5\_1 … var5\_5: statements for willingness to use ICT tools in science teaching