Evaluation of an Adaptive Course of Procedural Programming

Michal Barla, Tomáš Kramár   Supervisor: Professor Mária Bieliková

S T U

F I I T

cLIP

Adaptive learning system developed within PeWePro research project
Tracks students progress and selects study materials and questions accordingly
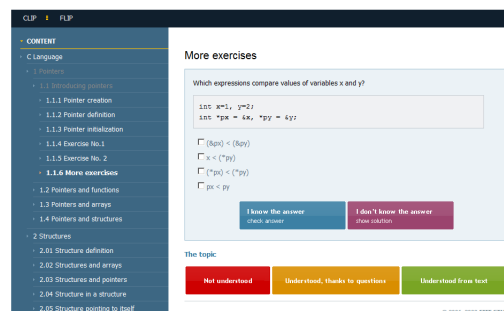Uses IRT (Item Response Theory to select questions)

PEWE PRO

Experiment #1

Winter course of Procedural Programming
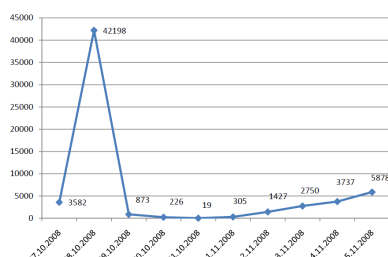cliP as complementary study source

Available data
- pre-test
- cliP logs
- post-test
- questionnaire

### cLIP usage from 27.10.2008 to 5.11.2008

Did cLIP help you to understand the topic?

answer	% of students
I did not use cLIP	18,6
I only read texts (did not try the excercises)	8,6
Yes, it did	36,8
Yes, partially	34,2
No, it did not help at all	1,9

How did you learn?

source	% of students	most useful for % of students
lecture notes	64	30
cLIP	59	40
recommended sources	37	31
other sources	25	12

Post-test score distribution
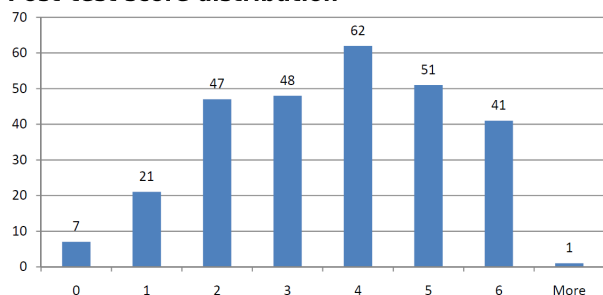
Score distribution w/o cLIP
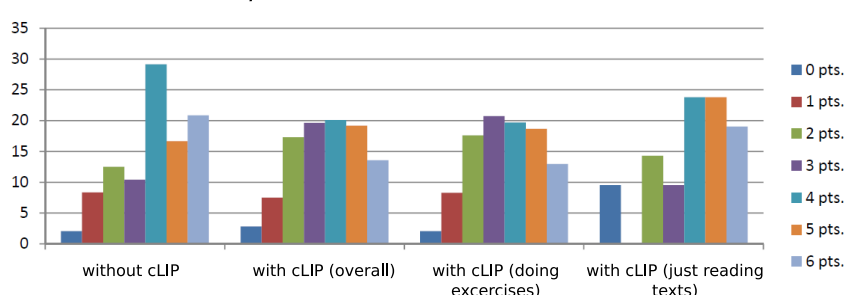
Experiment #2

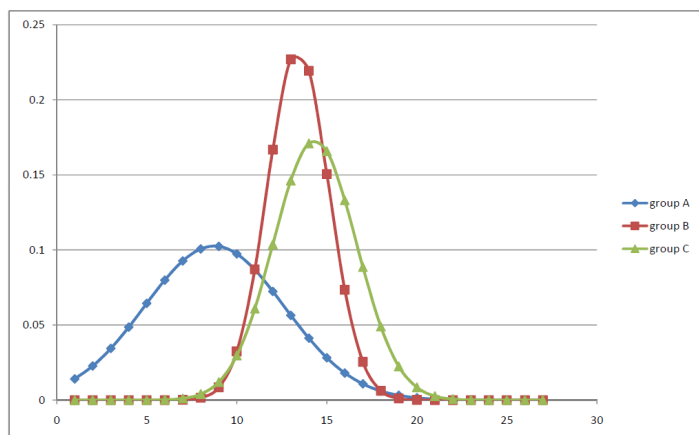34 students in 3 groups
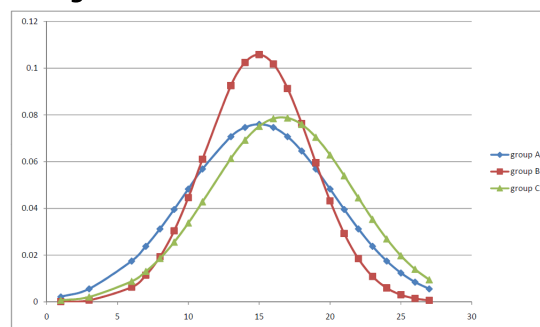
Group #a: cLIP without interactive content
Group #b: cLIP without interactive content, with annotations
Group #c: full-featured cLIP

Histogram of all students

Histogram of students with lower weighted study average

Histogram of students with higher weighted study average