WHAT INFLUENCES STUDENTS TO STUDY INFORMATION AND COMMUNICATION TECHNOLOGY?

Külli Kori, Heilo Altin, Margus Pedaste, Tauno Palts, Eno Tõnisson

University of Tartu (ESTONIA)

Introduction

- The role of ICT has increased rapidly.
- The lack of the labour with good ICT knowledge and skills (Hüsing et al., 2013).
- Dropout in ICT related curricula is a worldwide problem. Average dropout in Europe is 19% (Hüsing et al., 2013).

Eesti tuleviku heaks

Euroopa Liit
Euroopa
Regionaalarengu Fond

Introduction

- Many ICT students start working during studies.
- The importance of bachelor's degree (in USA) has grown and employees with higher education earn more (Sum et al., 2007).
- Motivation is important in finishing studies (Bruinsma, 2004).

TARTU ÜLIKOOL 1632 UNIVERSITAS TARTUENSIS
TTÜ
Eesti Infotehnoloogia Kolledž
The Estonian Information Technology College
ITL
Eesti tuleviku heaks
Euroopa Liit
Euroopa
Regionaalarengu Fond

Research questions

(1) What are the reasons why students want to study ICT?

(2) What are the reasons why ICT students start working while studying?

Eesti tuleviku heaks

Euroopa Liit
Euroopa
Regionaalarengu Fond

Methods

- September 2013
- 517 first year ICT students
- From 8 different curricula and 3 main universities in Estonia where ICT is taught
- Questionnaire which contained multiple choice and open ended questions
- ICT students perception

Eesti tuleviku heaks
Euroopa Liit
Euroopa
Regionaalarengu Fond

Qualitative content analysis

- A coding schema of categories was inductively developed based on the data of every open-ended question.
- Two raters specified the categories until it was possible to reach 80% accuracy.
- Two researchers carried out the data analysis.
- 10% randomly selected answers were independently analysed to test for inter-rater reliability (Cohen's Kappa > 0.8).

Eesti tuleviku heaks
Euroopa Liit
Euroopa
Regionaalarengu Fond

The ‘breaking point’ that caused interest in ICT

Category	Percentage
First computer, experience of doing something	36%
Computer lessons	9%
Someone recommended, role model	9%
Everyday contact with ICT	7%
Computer games	6%
ICT field is important	5%
Interest came with time	5%
Interest in mathematics	4%
I like ICT	3%
Salary	2%
Other	14%

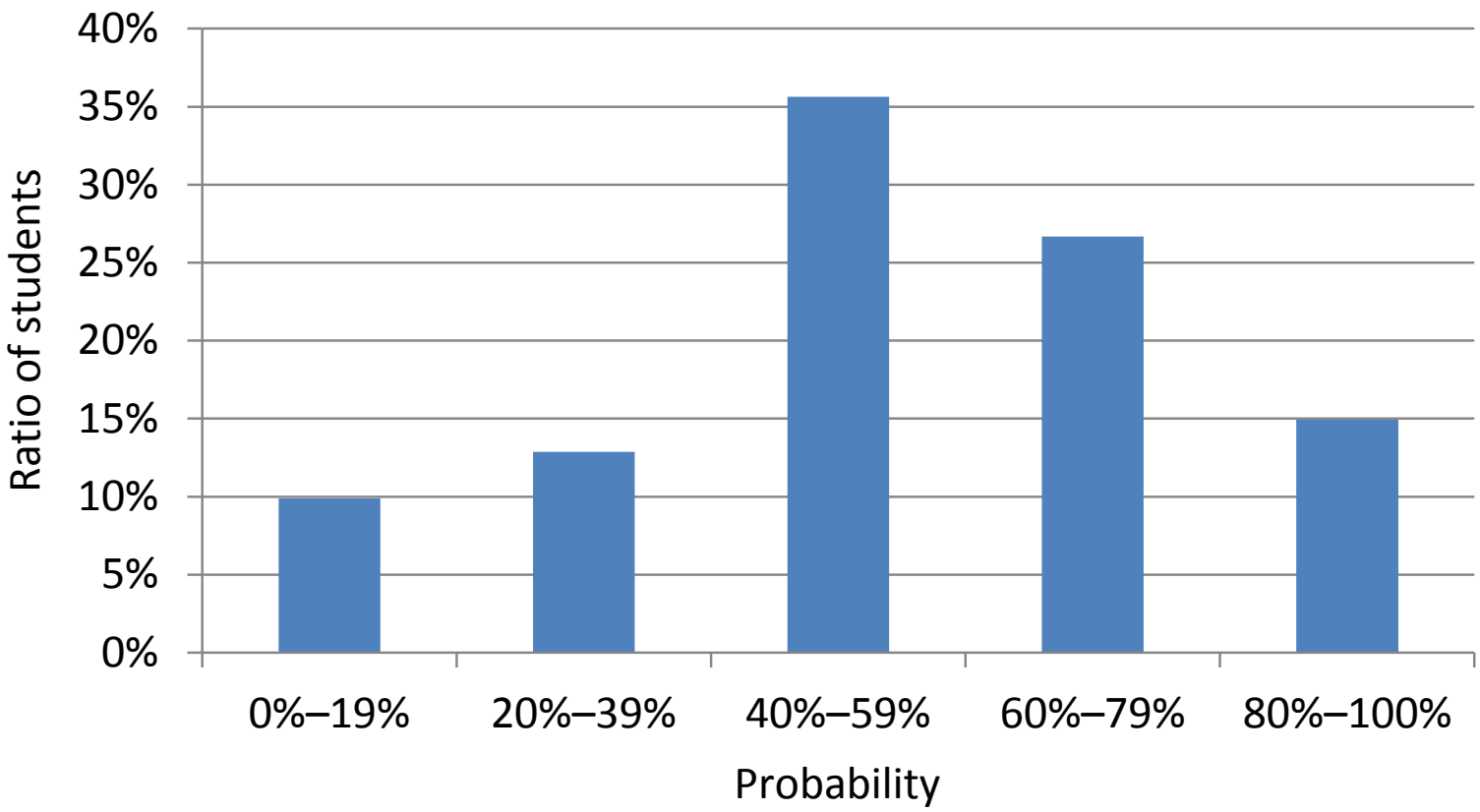
TARTU ÜLIKOOL 1632 UNIVERSITAS TARTUENSIS
TTÜ
Eesti Infotehnoloogia Kolledž
ITL
Eesti tuleviku heaks
Euroopa Liit Euroopa Regionaalarengu Fond

Was the ‘breaking point’ also the reason why they chose this curriculum? If NO, then why?

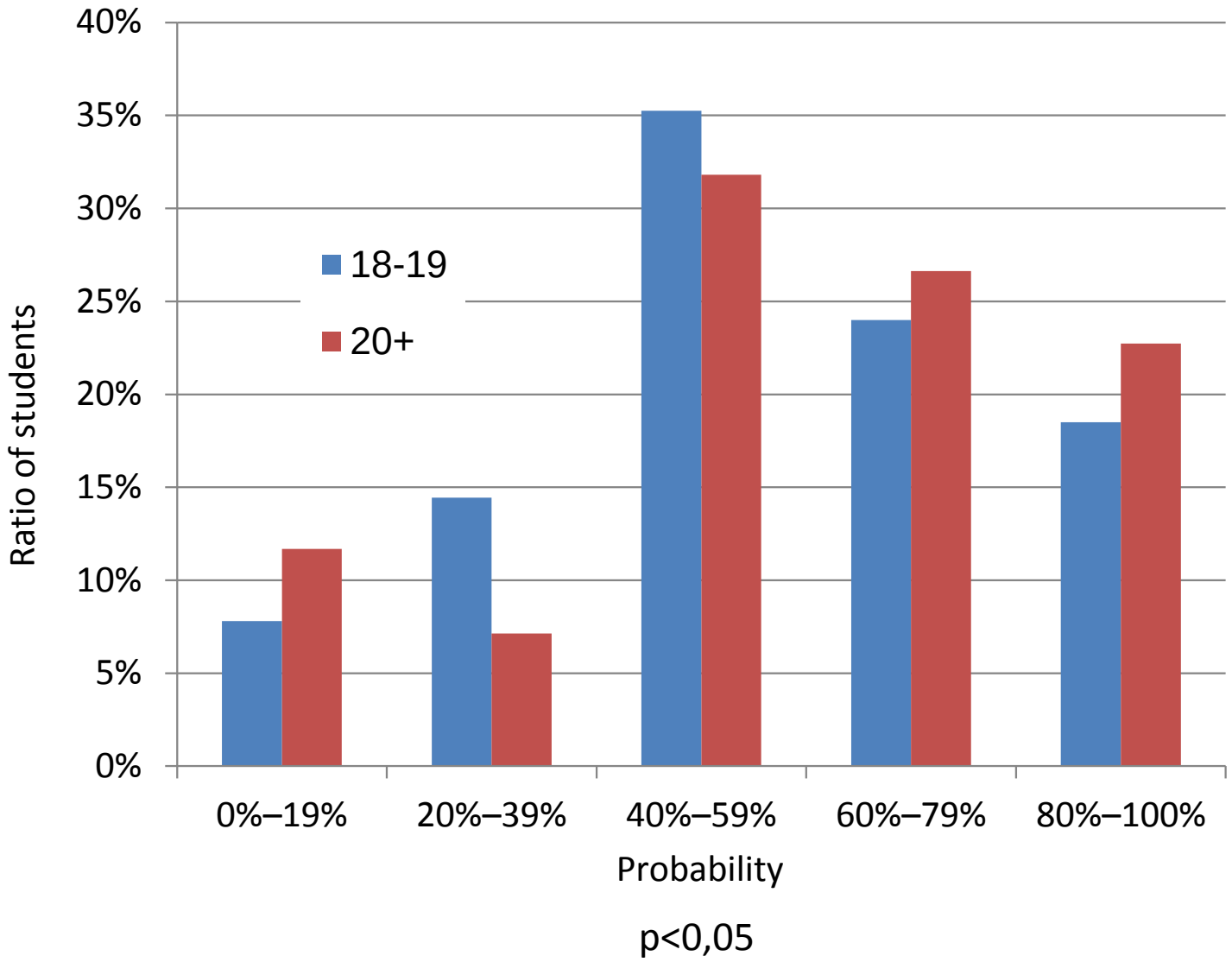
Category	Percentage
The curriculum was suitable	40%
Interest in ICT	17%
Job opportunities	16%
Someone recommended	5%
I like ICT	3%
Other	19%

Eesti tuleviku heaks
Euroopa Liit
Euroopa
Regionaalarengu Fond

Probability of starting working during studies

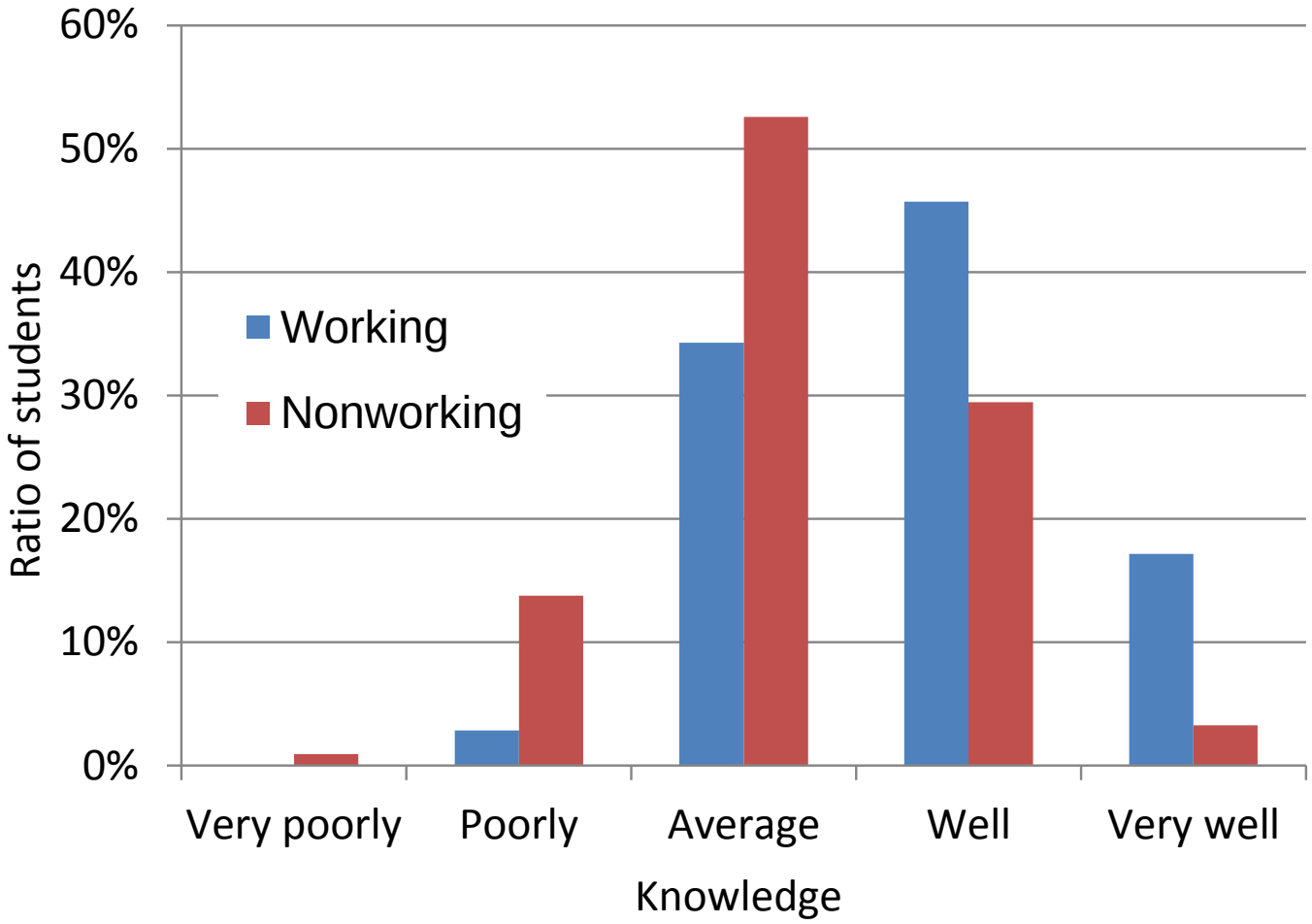


Probability of working during studies – age differences



p<0,05

Knowledge of opportunities in ICT field – working and not working students



p<0,05

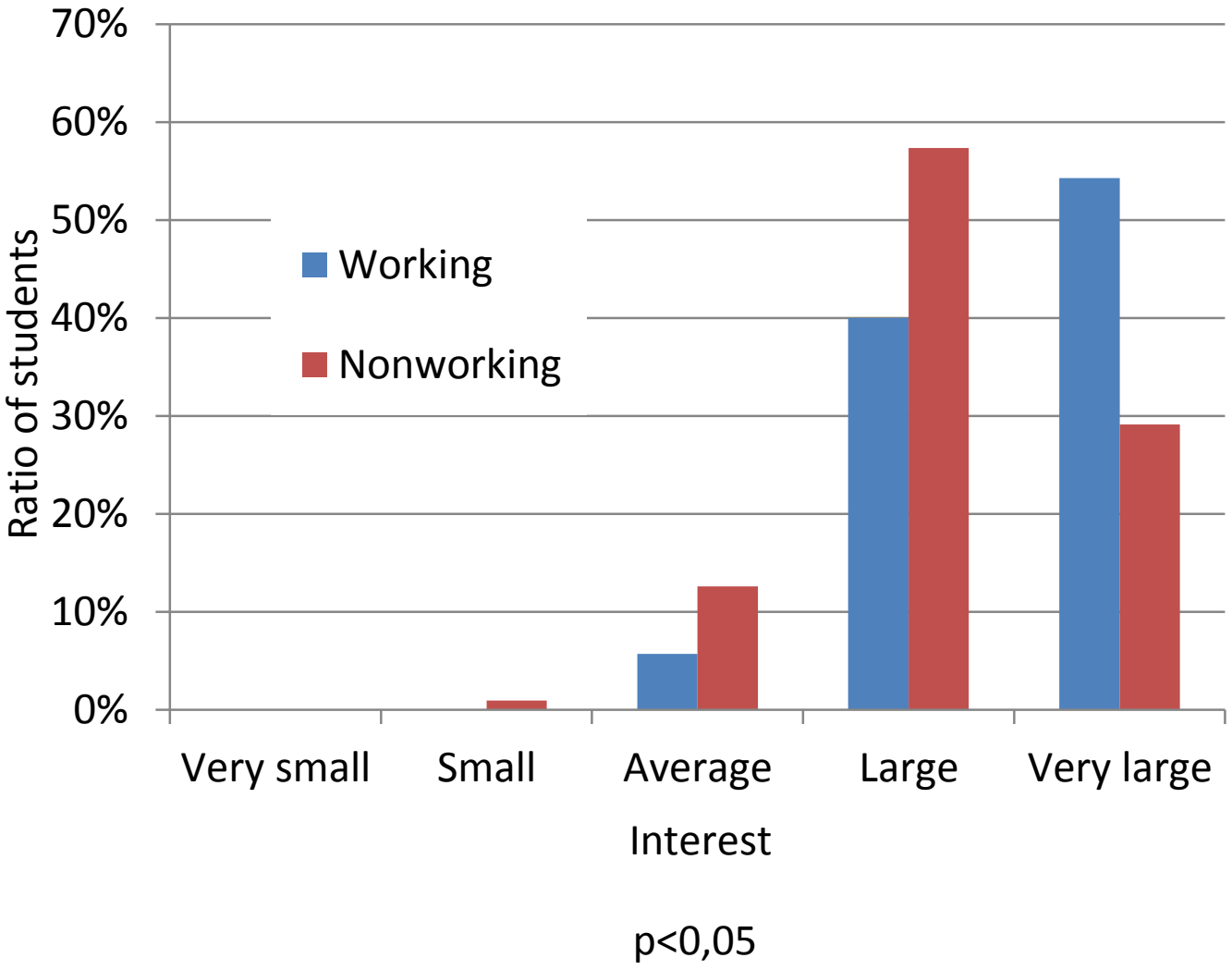
Reasons to start working during studies

Reasons	Percentage
Financial situation	42%
Work experience	28%
Suitable job	12%
Having enough time	9%
Other	6%
Will not start work	3%

Eesti tuleviku heaks

Euroopa Liit
Euroopa
Regionaalarengu Fond

Interest in ICT – working and not working students



p<0,05

Recommendations for practice

- Personal computers for children
- Attractive ICT curriculum
- Higher financial support for students
- More work practice

Eesti tuleviku heaks
Euroopa Liit
Euroopa
Regionaalarengu Fond

Thank you!

kulli.kori@ut.ee

This research was supported by the European Union through the European Regional Development Fund. It is financed in the project “Conceptual Framework for Increasing Society’s Commitment in ICT: Approaches in General and Higher Education for Motivating ICT-Related Career Choices and Improving Competences for Applying and Developing ICT.”

Eesti tuleviku heaks

Euroopa Liit
Euroopa
Regionaalarengu Fond