Master's thesis presentation

Potential users of Mypage at Norway.no:
Awareness and use of preventive technologies

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07.06.2007

Outline

- Introduction
- Design
- Dataset
- Respondents
- Results
- Preliminary conclusions

Thesis context

- Written in affiliation with a project at Norwegian Computing Central.
- Use case: The governmental portal Mypage.
- The thesis is a part of the requirement capture phase.
- http://petweb.nr.no/petweb/index.php/Main_Page

Problem description

- **How prepared are the potential users of Mypage for the possible escalated threat to their information and privacy, should they start using Mypage?**

Motivation

- Mypage aggregates personal data about individuals.
- The aggregated data is then placed (temporarily) on the user computer.
- This might make users of Mypage more attractive to attackers.

Motivation cont.

- We are already seeing this with trojans etc. stealing financial information from users of internet banking.
- If identity theft and social engineering becomes more popular, Mypage users could become prime targets.

Research questions

1. **Awareness level of potential Mypage users?**
2. **Use of preventive technologies?**
3. **Level of awareness that triggers use of preventive technologies?**

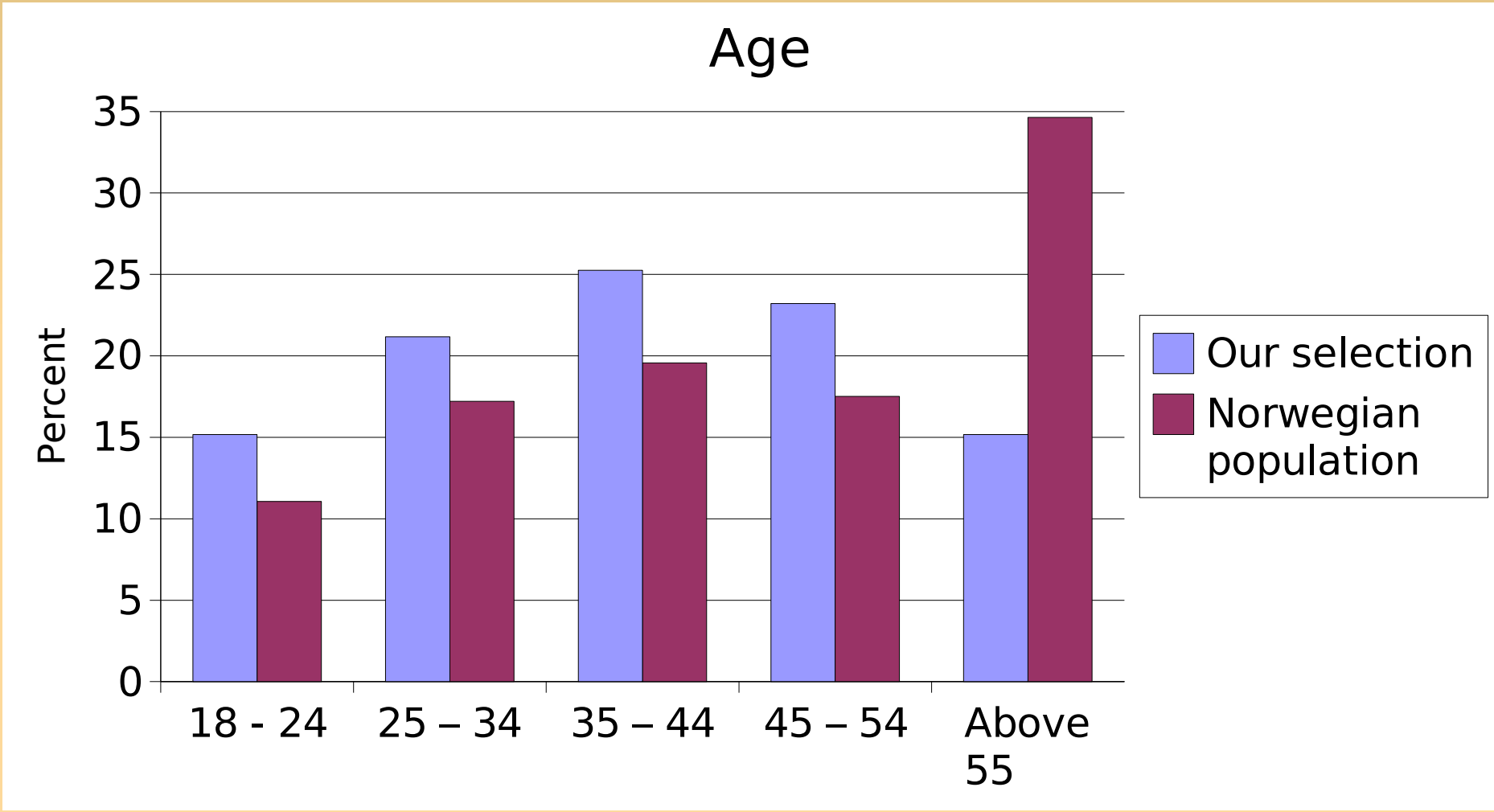
Overall design

- Work with state of the art.
- Data collection (survey).
- Statistical analysis.
- Discussion of results.

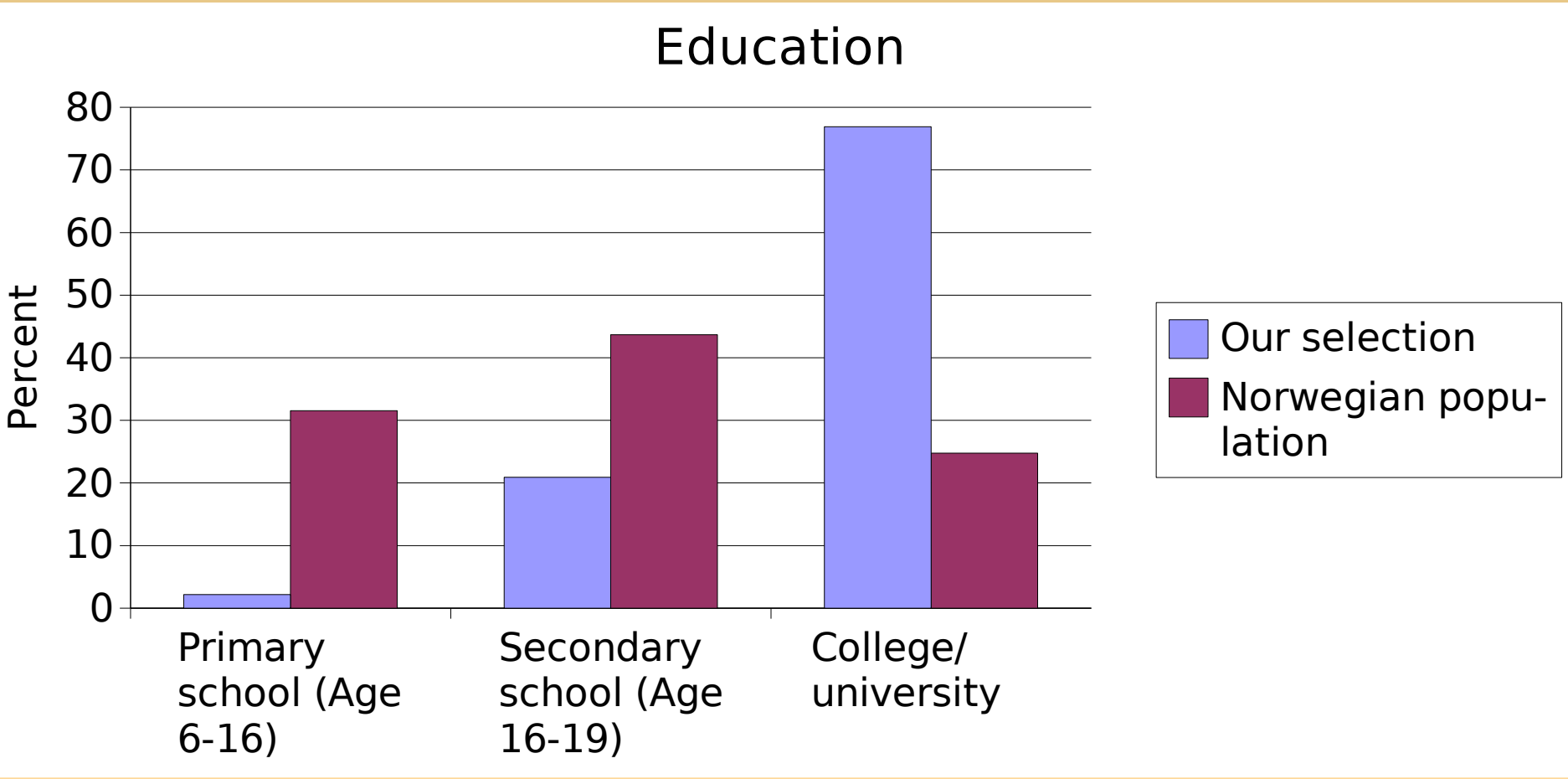
Dataset

- 936 started answering questions.
- 784 people completed our survey, these are our respondents.
- Completion rate was 84%
- Average completion time was 9 minutes.

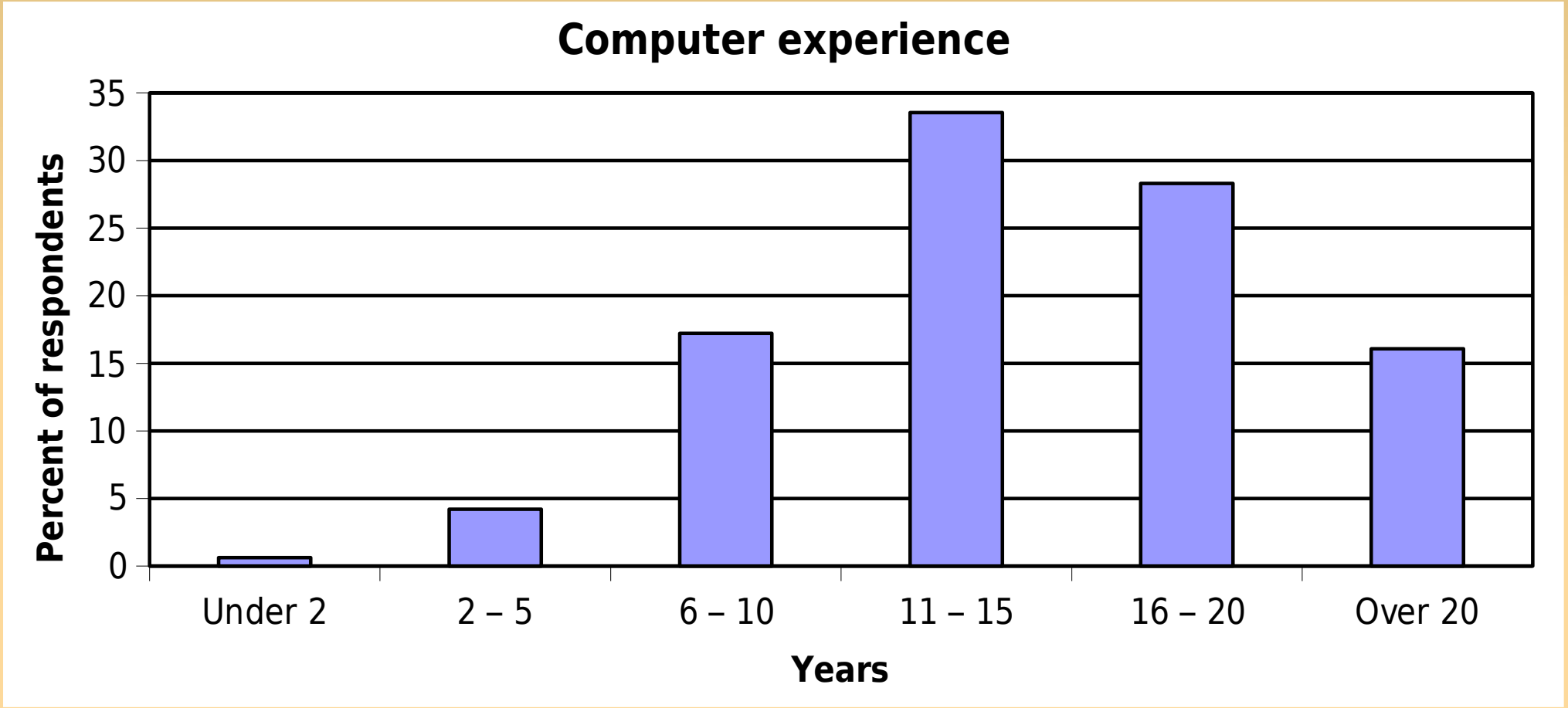
Respondents



Respondents cont.

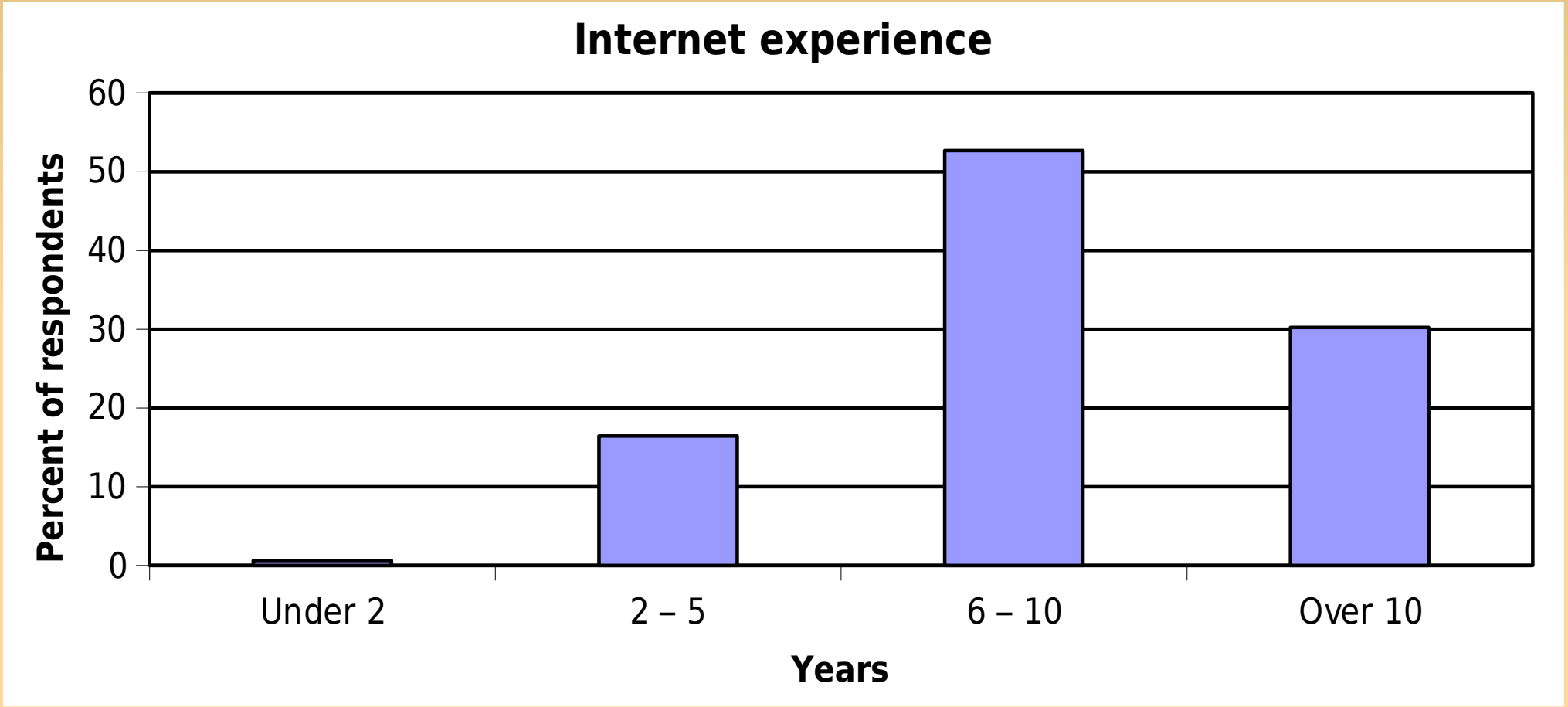


Respondents cont.



77.93% have 11 or more years of experience with personal computers.

Respondents cont.



82.91% have 6 or more years of experience with Internet use.

Respondents cont.

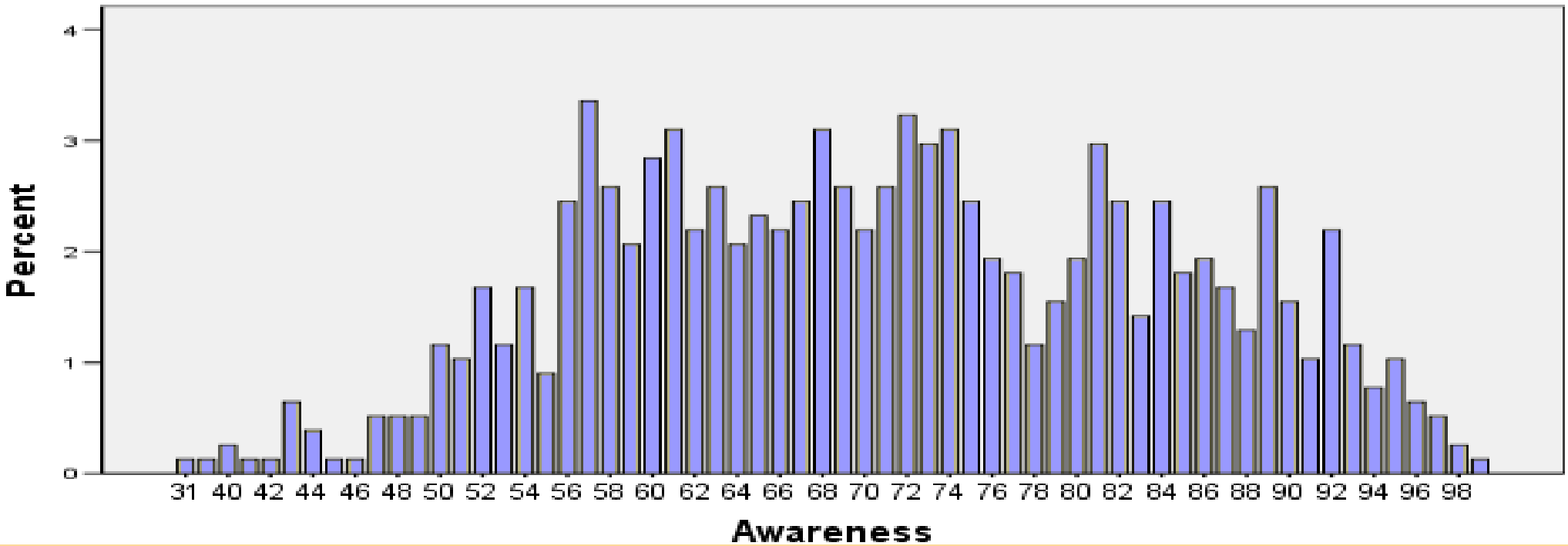
Comparing our selection with the population:

- Our selection is young.
- Our respondents are well educated.
- Our respondents have much experience with both PC and Internet use.

It could be reason to belive that our selection will perform better than the population.

Awareness score

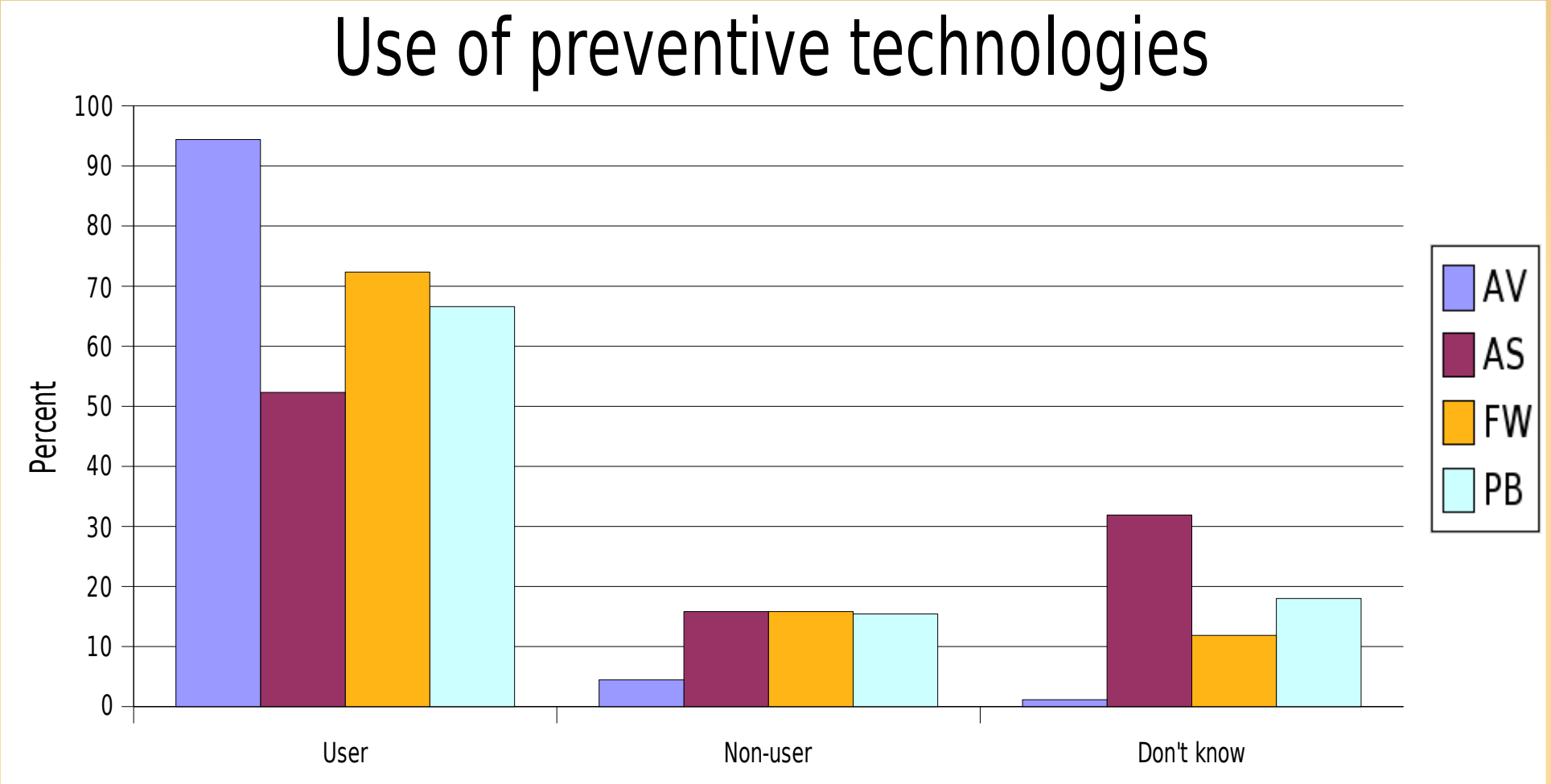
- Awareness calulated based on surfing habits and knowledge(threats, methods, symptoms and security measures).
- Average awareness level is 44.89 on a scale from 0 to 85.



Awareness

- Factor analysis shows knowledge most important in our main component.
- Surfing habits and knowledge of infection symptoms do not explain much of the main component.
- Also significant differences in gender, age, education and experience.

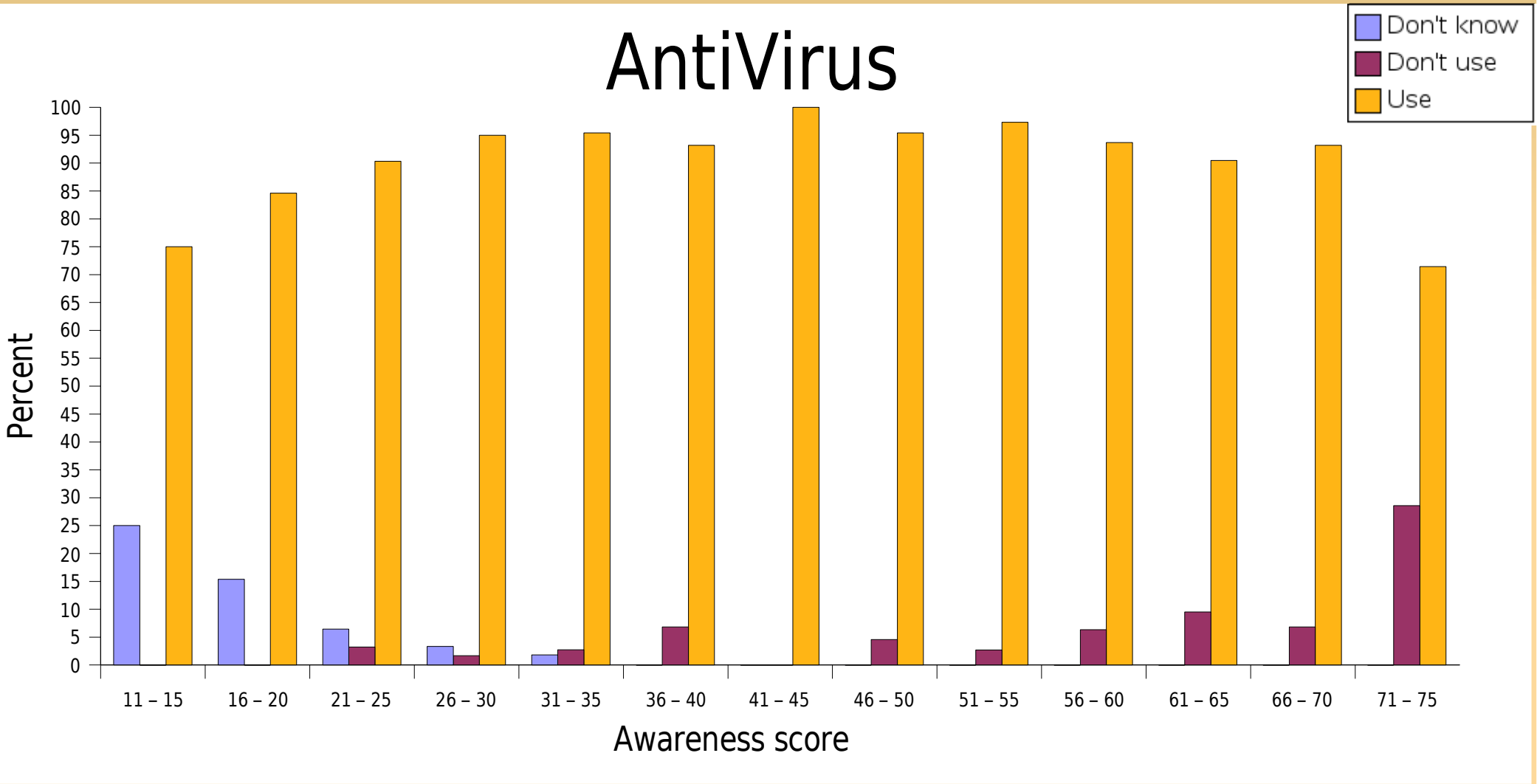
Use of preventive technologies



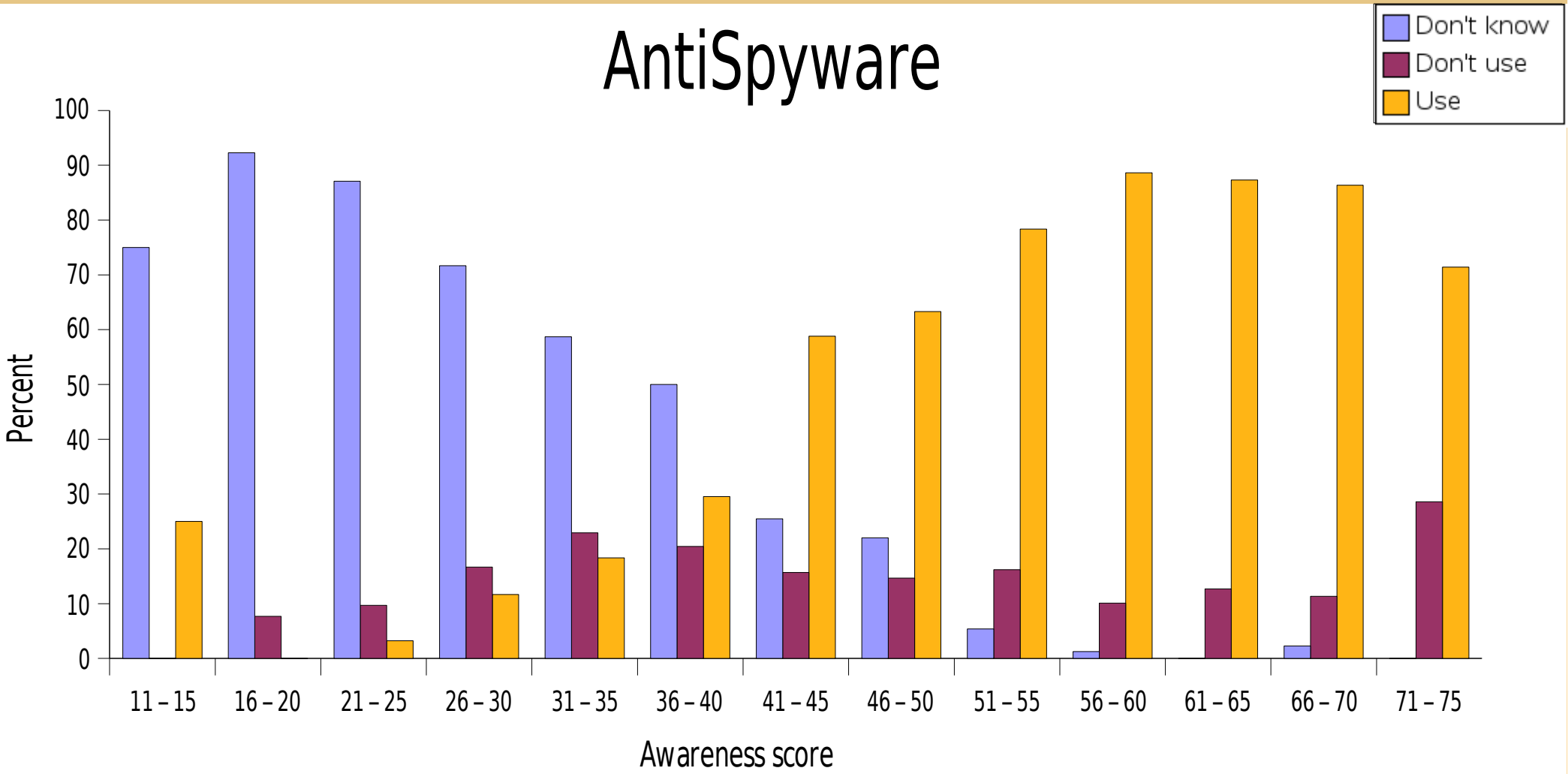
Awareness by use

- Significant differences for users, non-users and those who do not know for all preventive technologies.
- Linear differences for all except Anti-virus.

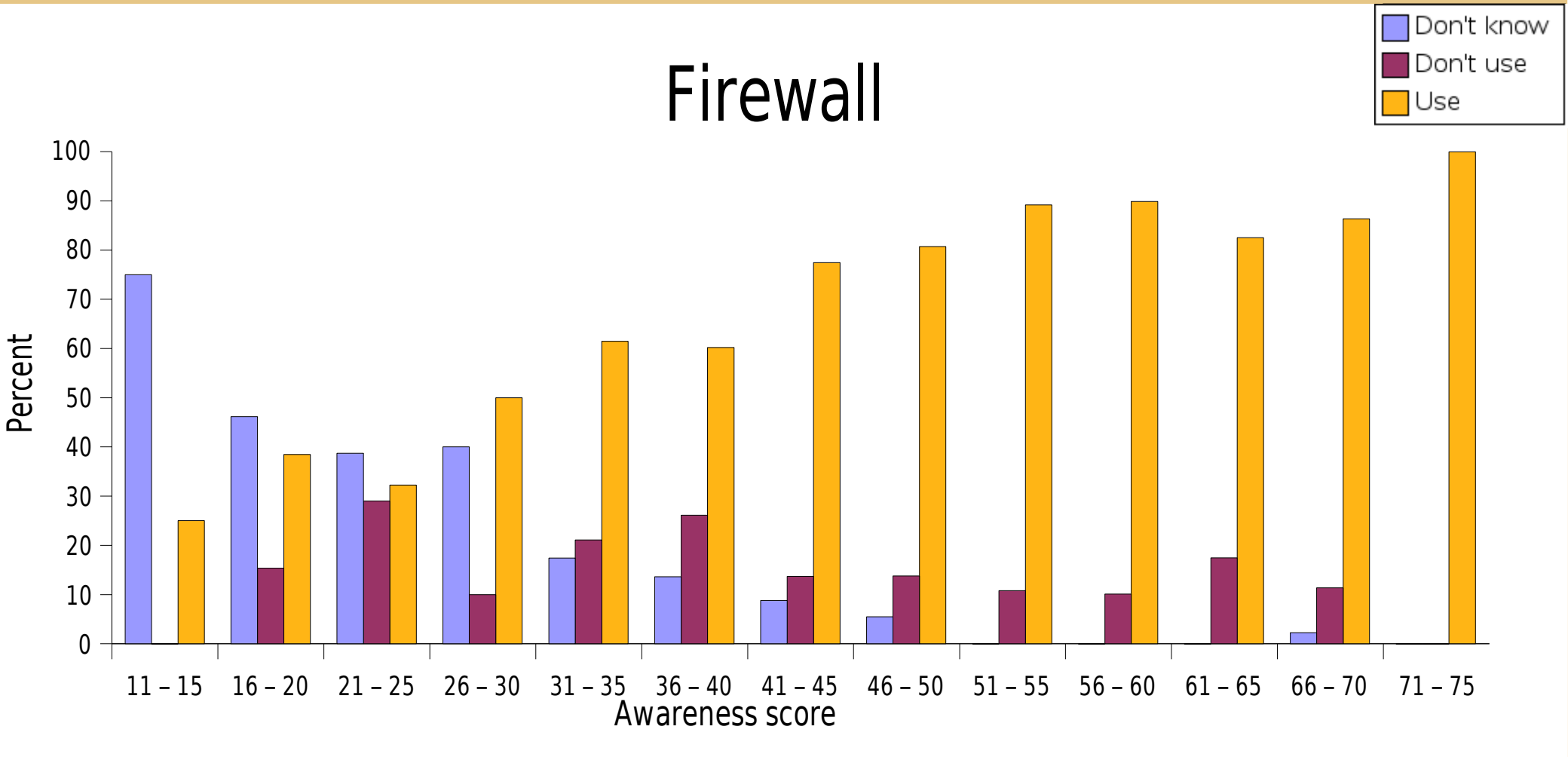
Use by awareness



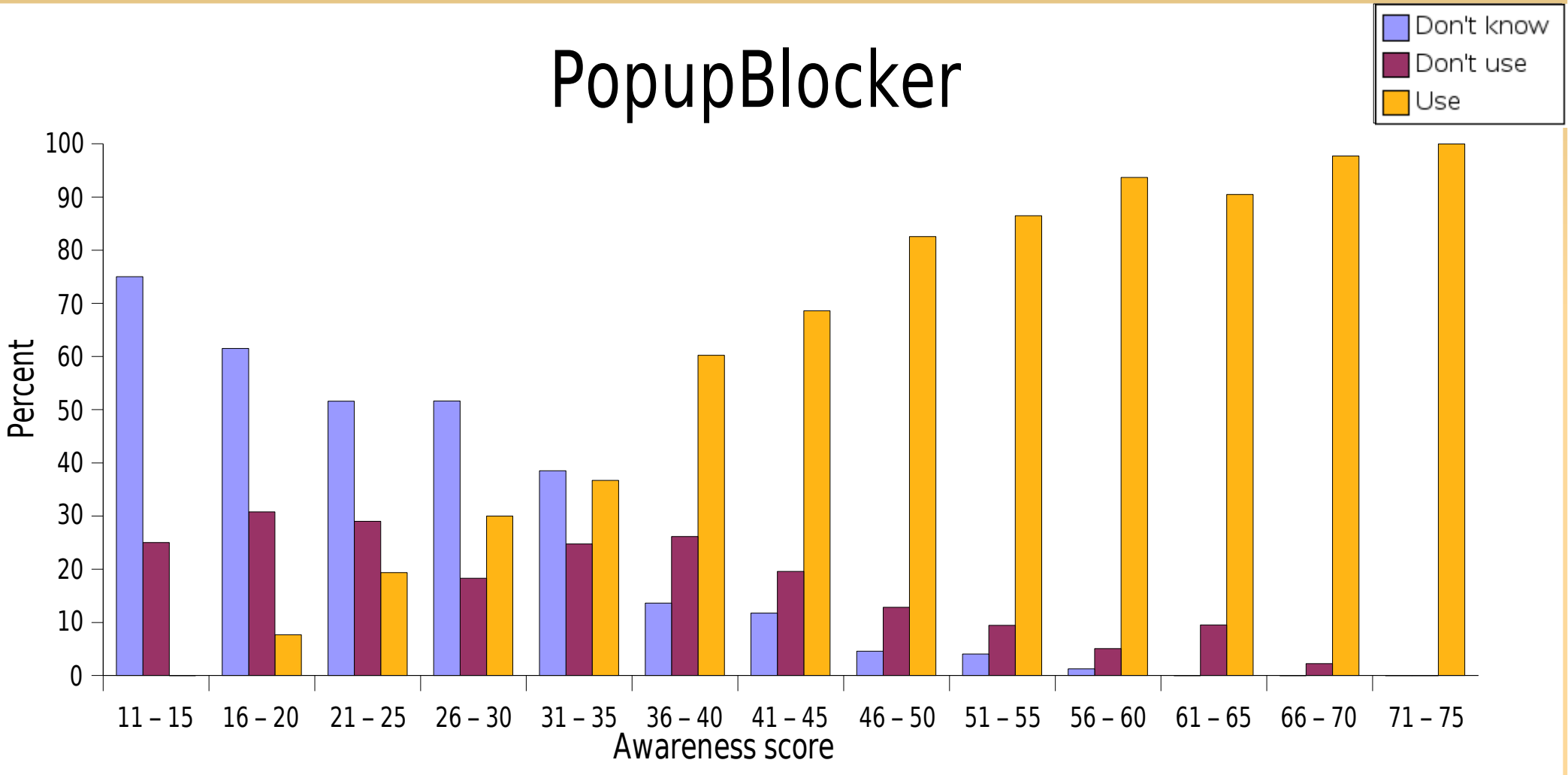
Use by awareness cont.



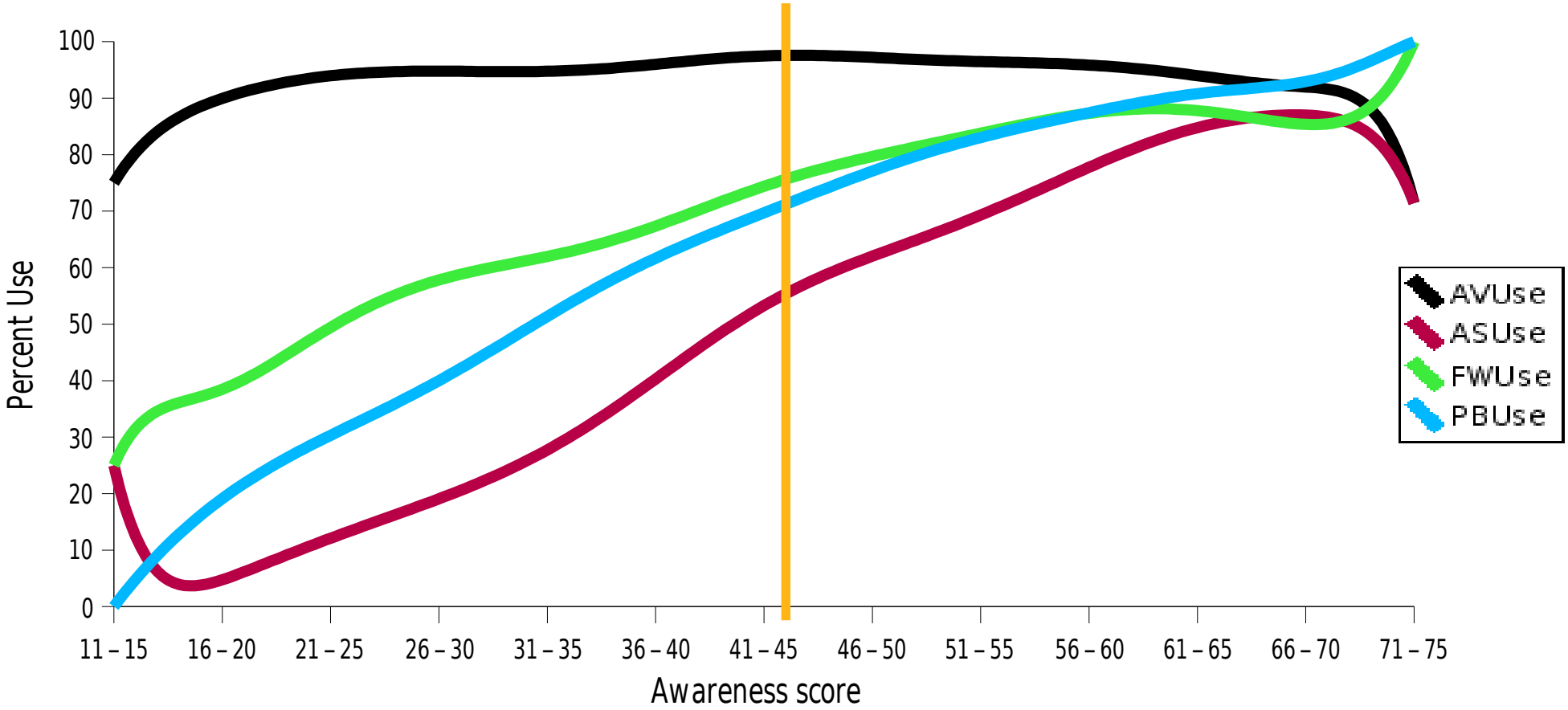
Use by awareness cont.



Use by awareness cont.



Trends of use



Preliminary conclusions

- We have a very skewed selection of our population.
- The awareness is best improved by increasing knowlegde of threats, infection methods, and security measures.
- Only approximately 50% use Anti-spyware in our selection.

Prelim. conclusions cont.

- In our selection we see a clear connection between awareness level and use of preventive technologies, with the exception of anti-virus.
- But no clear levels of awareness that trigger use of the preventive technologies.

Further work

- The survey should be administered to a representative selection of the population of potential Mypage users.

Questions?