



UNIVERSITY OF TARTU

Impact factors of e-writing

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Background

- Using computer and Internet (16–24 year olds)
 - using computer 98,40%
 - using Internet 99,30% (Statistics Estonia, 2018)
- Computer use daily (18-19 years old students)
- Estonian language national exam



Studies

- In 2014
 - 6615 (95%) examinees completed questionnaire
- In 2016
 - 31 students tested the reading task (pilot study)
- In 2017
 - 674 students tested the writing task



Examination Data Base EIS

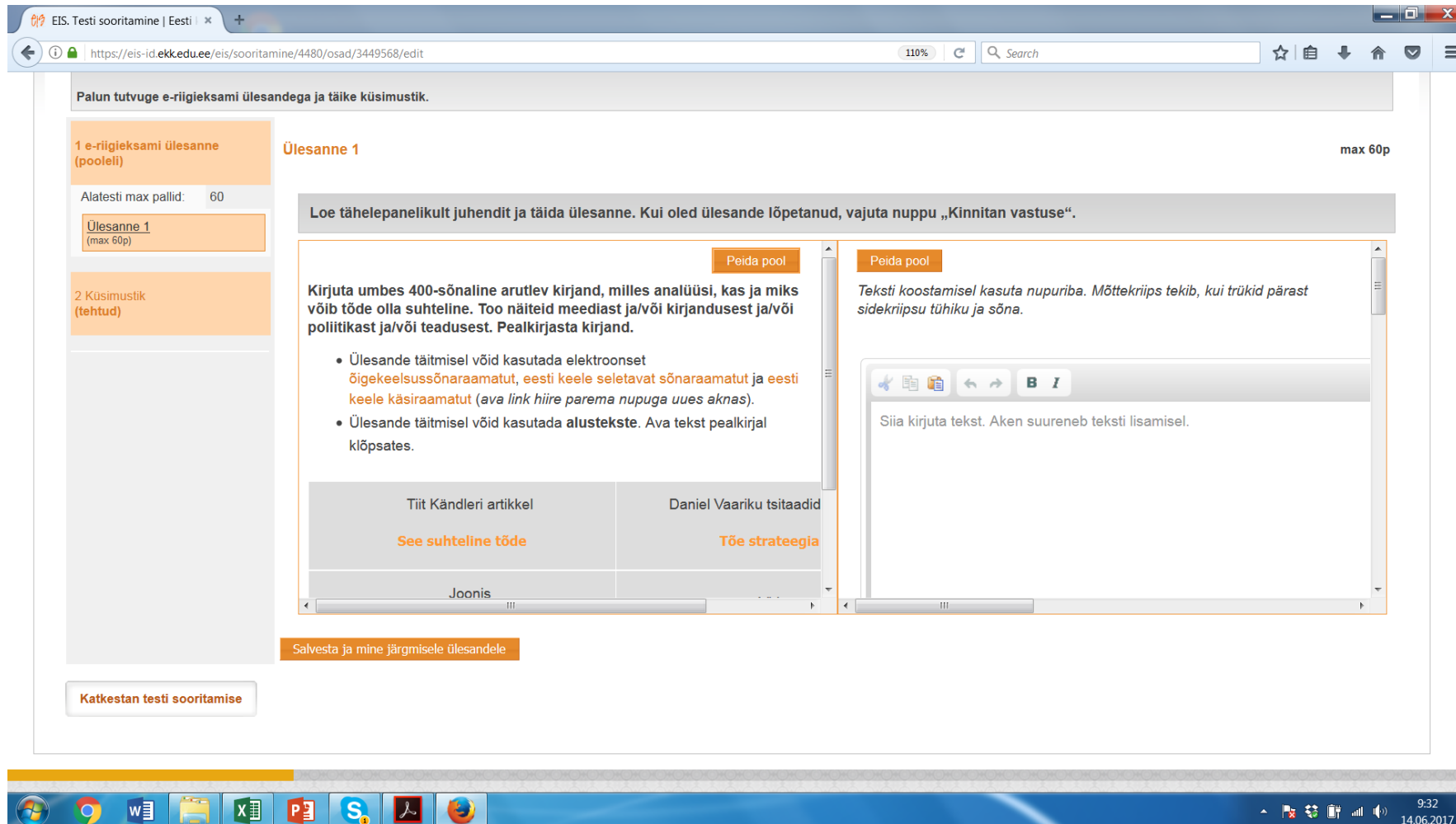
The screenshot shows the top part of a web browser window. The address bar contains 'https://eis.eduedu.ee/eis/'. The page header features a banner with a group of students and the text 'Eksamite infosüsteem'. To the right of the banner is a login area with the text 'Autentimata kasutaja' and a 'Sisselogimine' button. Further right is the 'innove' logo with the tagline 'eksamid ja testid'. Below the banner is a navigation bar with two links: 'Avalikud teesandid' and 'Eksamite infosüsteem'.

The screenshot shows a yellow box titled 'Oluline info'. The text inside reads: 'Eesti keele teise keelena põhikooli lõpuksami tulemused on koolidele ja õpilastele EIS-is avaldatud.' Below this, it states: 'Põhikooli lõpuksamite hindamisjuhendid on EIS-is kättesaadavad 13. juunil alates 12:30 füüsika, bioloogia, keemia; 13:30 geograafia, ajalugu, ühiskonnaõpetus, võõrkeeled: inglise keel, saksa keel, prantsuse keel, vene keel; 13:30 vene keel.' It then says: 'Põhikooli lõpuksami protokoll tuleb EIS-is täita ja kinnitada, st digitaalselt allkirjastada nelja tööpäeva jooksul pärast lõpuksami toimumist. Protokoll täitmise juhendid [tekstina](#) ja [videona](#). NB! Palume kasutada protokoll täitmisel ja allkirjastamisel Mozilla Firefox'i veebilehitseja viimast versiooni.' Below that, it says: '2017. aasta 6. klassi tasemetööd on EIS-is pedagoogidele kasutamiseks. Kasutusjuhendid testide leidmiseks ja registreerimiseks asuvad [siin](#) ja läbiviimise ning hindamise kohta [siin](#) ja [siin](#) (video). EIS-is nimetame kõiki eksameid, teste ja tasemetööd testideks. Platide moodul araabia aadressil [eis.eduedu.ee/platid](#). Platide moodulis saab lõputööküsimuste ja lühetelelõhede hakkamini. Platide moodulis testidele registreerida ja teste laendada ei saa.'

The screenshot shows the footer of the website. On the left, there are logos for 'ÕKVI', the European Union, and the University of Tartu. In the center, there is contact information: 'EIS kasutajatugi tel: 7360 777 (E-R 9-17), eis.tugi@innove.ee'. On the right, there is a small circular icon.

The screenshot shows the Windows taskbar at the bottom of the screen. It includes icons for various applications like Chrome, Word, Excel, PowerPoint, and Skype. The system tray on the right shows the time as 9:05 and the date as 14.06.2017.

Testing of the writing task



EIS. Testi sooritamine | Eesti

https://eis-id.ekk.edu.ee/eis/sooritamine/4480/osad/3449568/edit

110%

Search

Palun tutvuge e-riigieksami ülesandega ja täike küsimustik.

1 e-riigieksami ülesanne (pooleri)

Alatesti max pallid: 60

Ülesanne 1 (max 60p)

2 Küsimustik (tehtud)

Ülesanne 1 max 60p

Loe tähelepanelikult juhendit ja täida ülesanne. Kui oled ülesande lõpetanud, vajuta nuppu „Kinnitan vastuse“.

Peida pool

Peida pool

Kirjuta umbes 400-sõnaline arutlev kirjand, milles analüüsi, kas ja miks võib tõde olla suhteline. Too näiteid meediast ja/või kirjandusest ja/või poliitikast ja/või teadusest. Pealkirjasta kirjand.

- Ülesande täitmisel võid kasutada elektroonset õigekeelsussõnaraamatut, eesti keele seletavat sõnaraamatut ja eesti keele käsiraamatut (ava link hiire parema nupuga uues aknas).
- Ülesande täitmisel võid kasutada alustekste. Ava tekst pealkirjal klõpsates.

Tiit Kändleri artikkel

Daniel Vaariku tsitaadid

See suhteline tõde

Tõe strateegia

Joonis

Salvesta ja mine järgmisele ülesandele

Katkestan testi sooritamise

9:32
14.06.2017

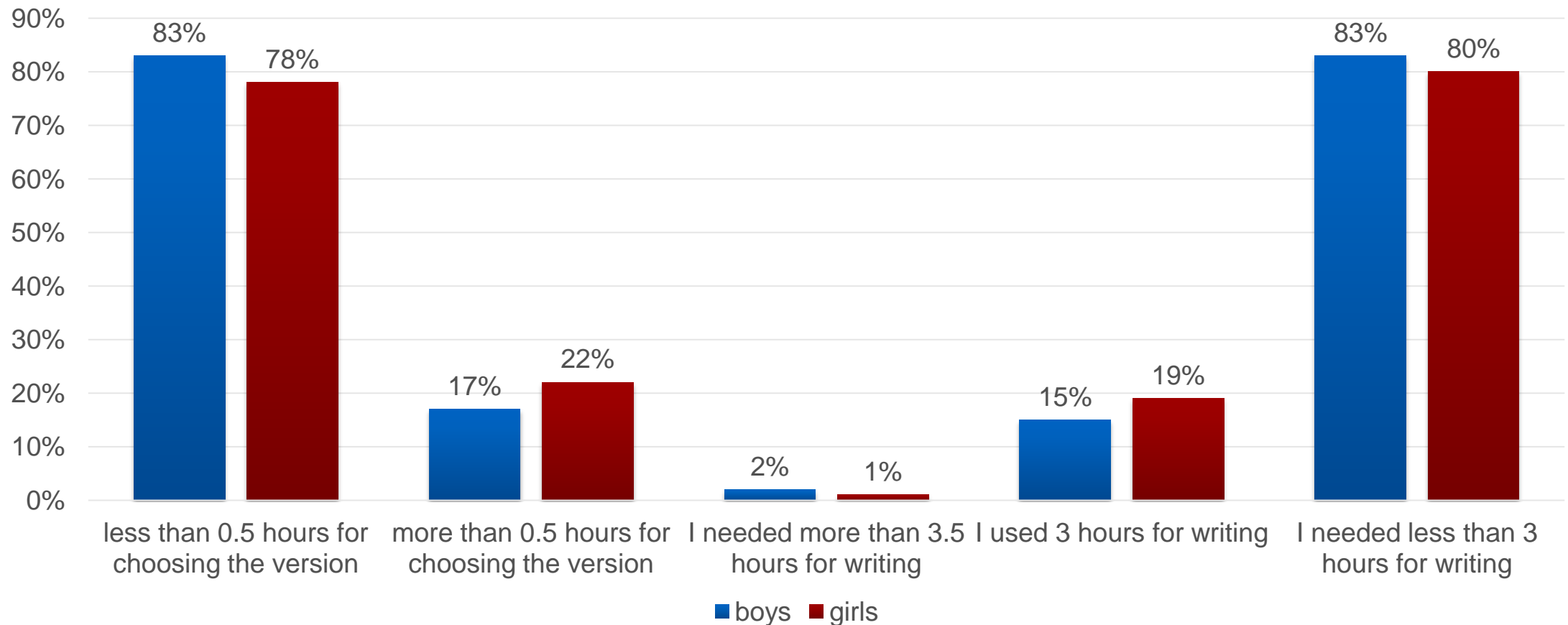


The use of time

- Students need the time
 - for choosing which version student would do.
 - for writing the task.

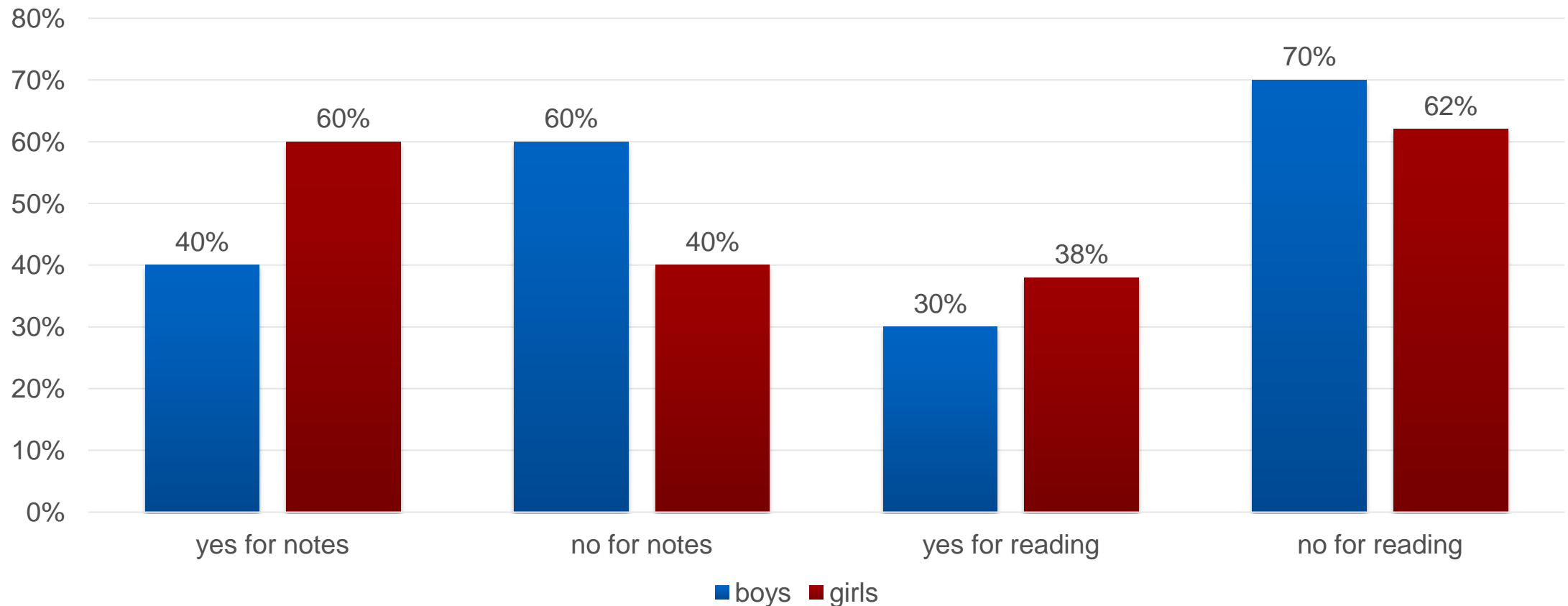


The use of time





Did students want to do notes on paper or read the text on the paper?



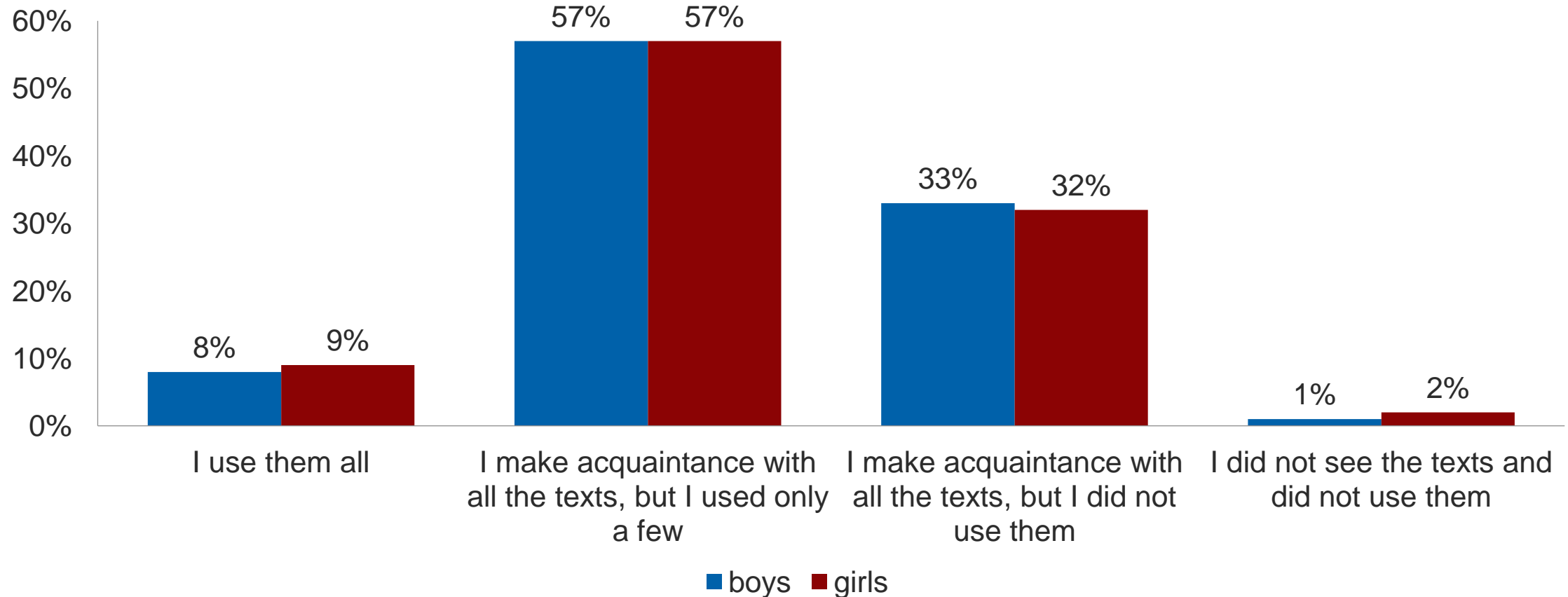


Using texts

- reading text
- quotations
- diagrams
- video



Using texts



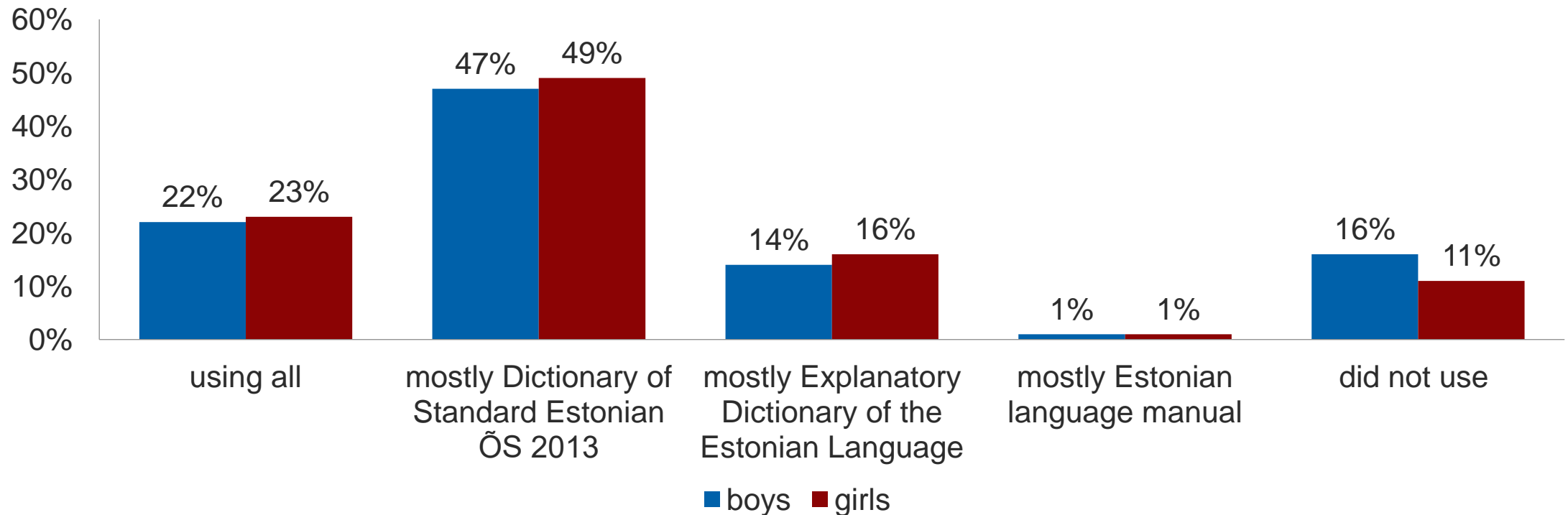


Using language e-resources

- Dictionary of Standard Estonian ÕS 2013
- Explanatory Dictionary of the Estonian Language
- Estonian language manual “Eesti keele käsiraamat”



Using language resources



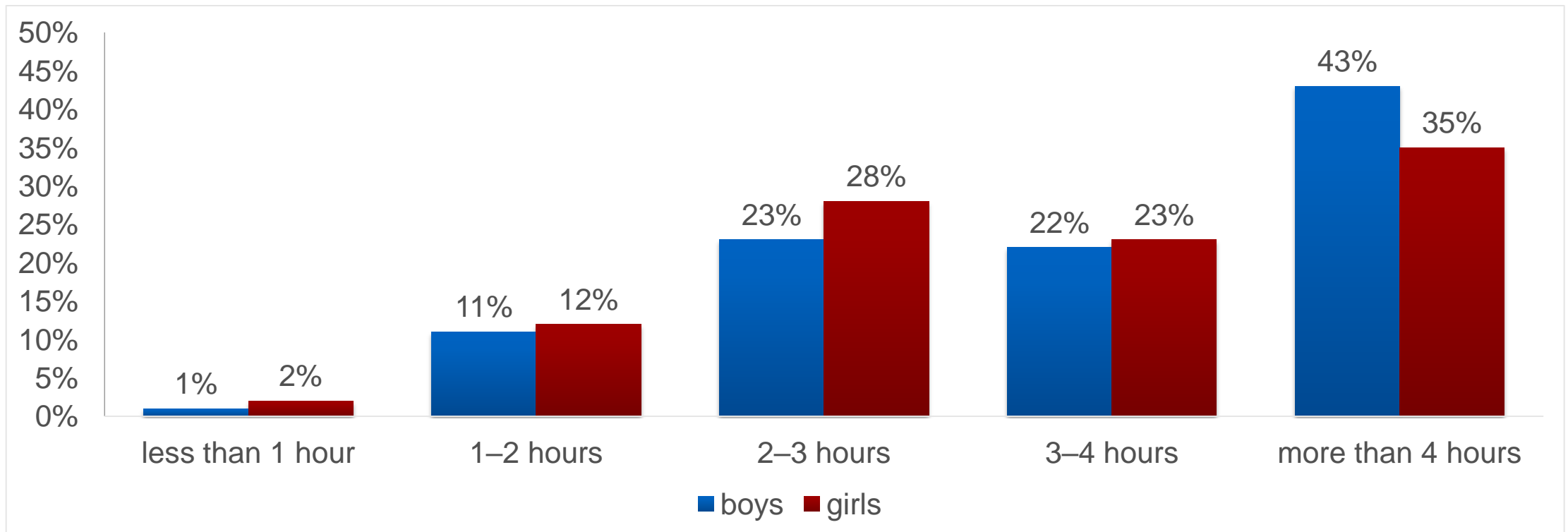


Using digital equipment and Internet

- How using digital equipment affects results?

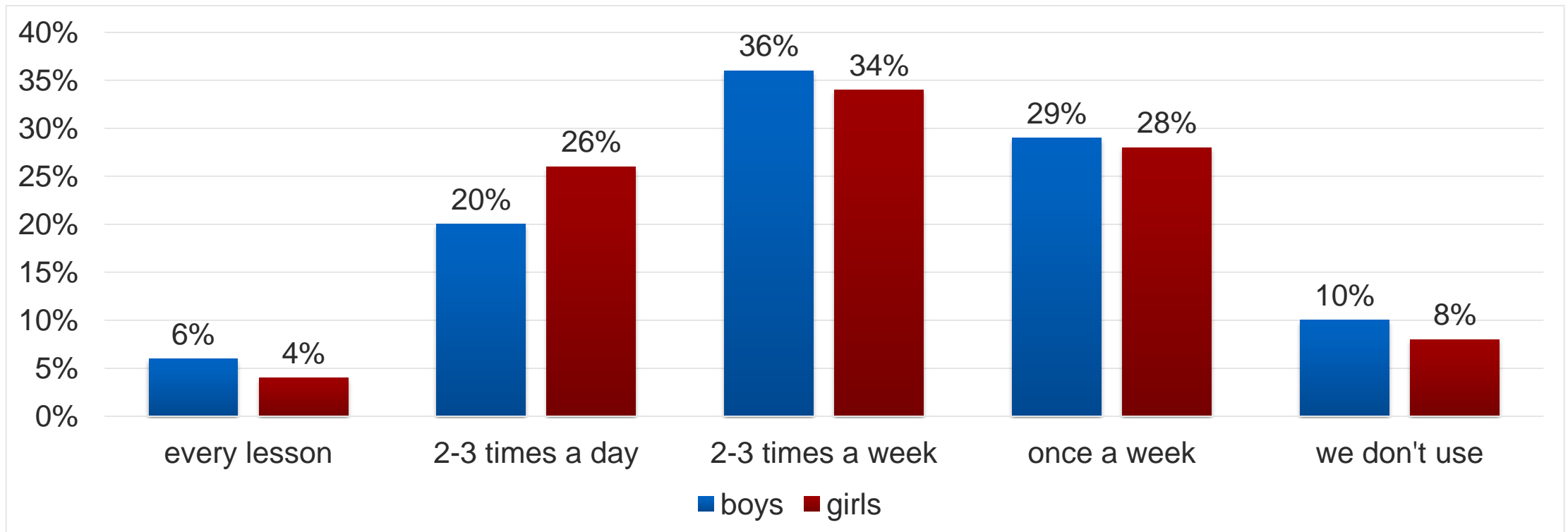


Digital equipment use daily



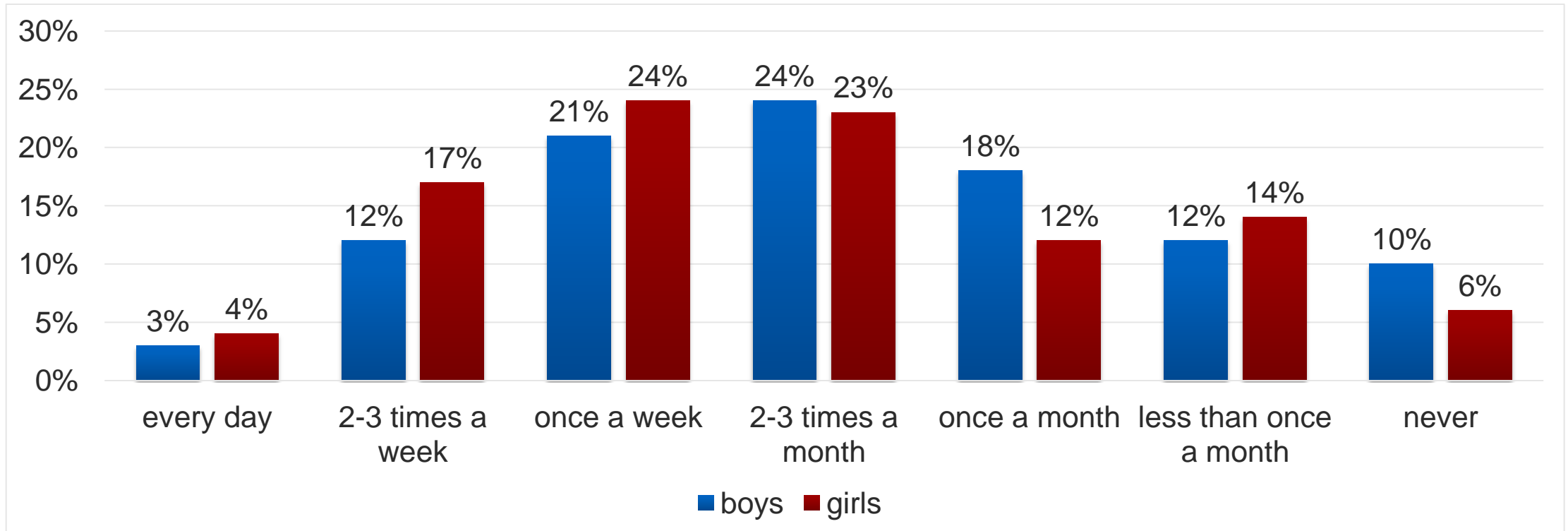


Frequency of using computer for learning at school



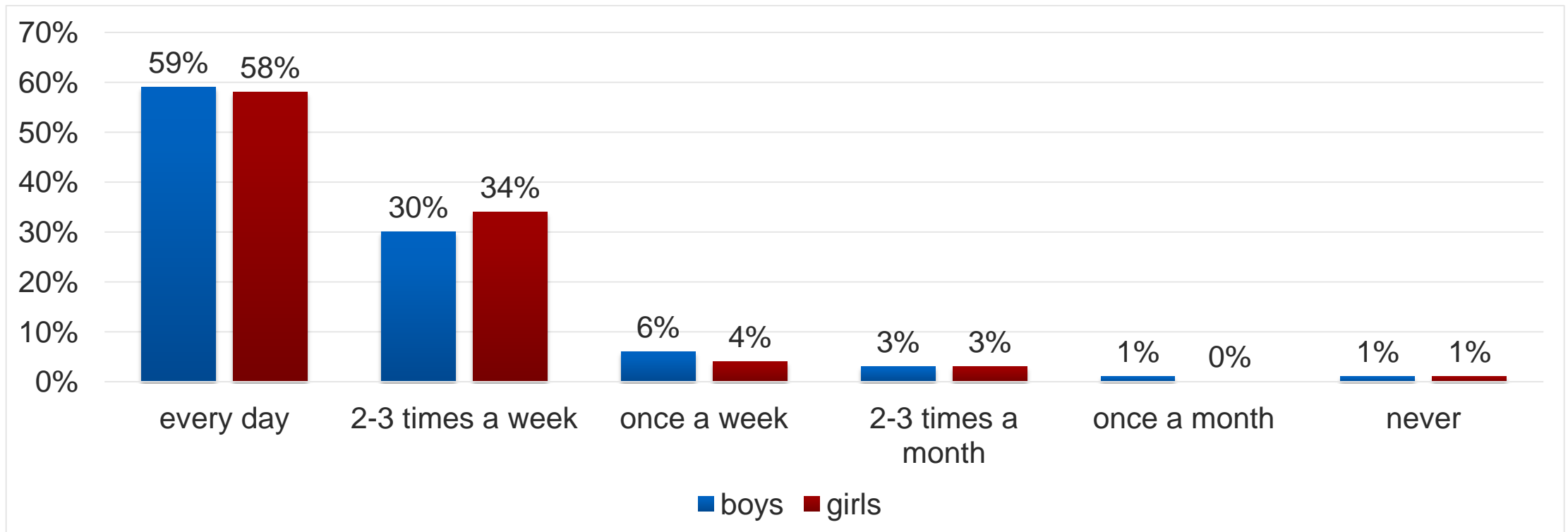


Frequency of using computer for learning Estonian at school



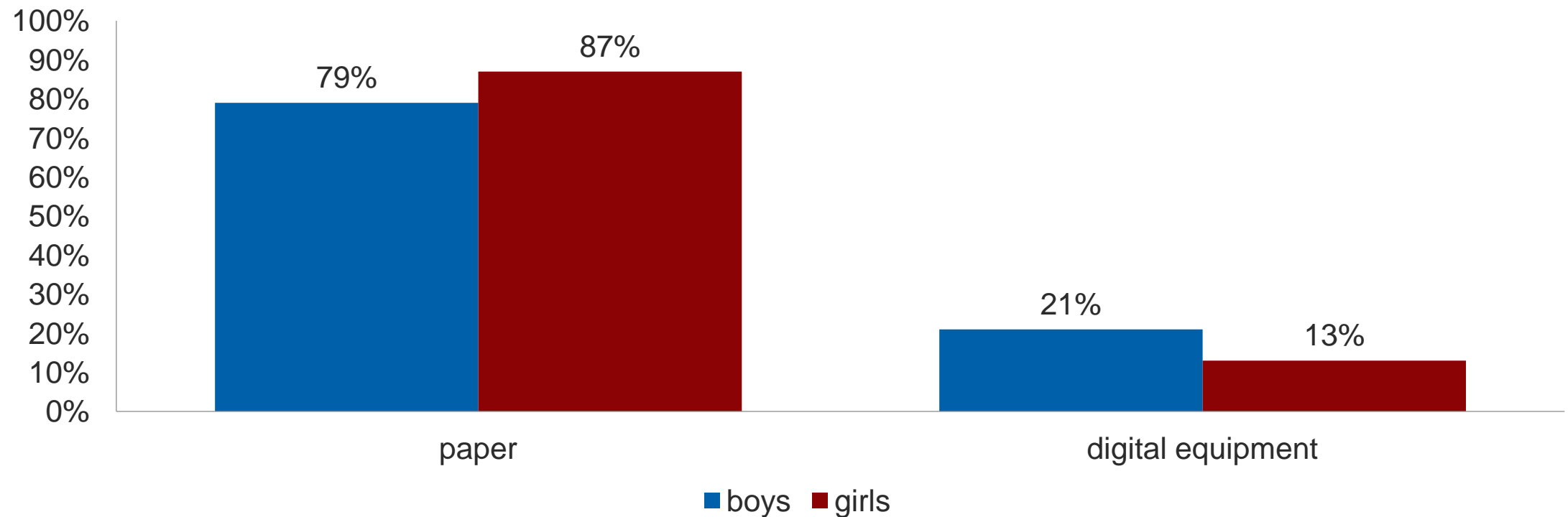


Frequency of using computer for learning at home





Reading long texts





Cons

- Examination environment
- Equipment
- Reading and concentrating
- Typos
- Cheating
- People can't write by hand in the future.



Pros

- We can use different types of texts.
- The writing in the computer needs less time.
- It is easy to edit the text.
- It is easy to copy the quotations for answering reading task.
- It is easy to use e-dictionaries and other language resources.
- If student have ugly handwriting then printing text do not affect the assessment.



Conclusions

- E-exam has more pros than cons.
- Frequency of using computers at school does not affect the results of writing.
- Students who did not use the computers for home learning got significantly better results, and students who use computers 1–3 hours per month for learning at home got significantly worse results than others.
- Weaker writers prefer reading long texts at the computer.



References

- Blazer, C. (2010). Computer-based assessments. Information capsule [Internet]. Miami (FL): Research Services, Miami-Dade County Public Schools (US); Jun. 18 p. Vol No.: 0918.
- Clariana, R., & Wallace, P. (2002). Paper-based versus computer-based assessment: key factors associated with the test mode effect. *British Journal of Educational Technology*, 33(5) pp. 593-602.
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- Statistics Estonia. (2018). <https://www.stat.ee/en>



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Common Language" taking
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