

OPTIMUM IMPLEMENTATION OF INFORMATION TECHNOLOGY IN ELEMENTARY EDUCATION

A pilot study among eight grade students in Croatia : attitudes and reflections about multitasking, studying and e-resources

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METHODOLOGY

Participants: grade 8 students, n=136 (F=47.1%, M=52.9%)

Research tool: online questionnaire

Hypothesis

- overuse of digital media leads to lesser academic success
- playtime decreases study time and that directly affects the academic success
- young people - so called *Google generation* - are apt to use multitasking

ACADEMIC SUCCESS AND FREE TIME

Academic success is decreasing over the years. Possible reasons:

- **learning hours at home:** students learn between an hour (26.5%) and two hours a day (25%) but 25.7% of students learn less than one hour a day
- **the amount of time spent playing computer games:** 50.7% of students spent more or the same time playing video games in time period from grade 5 to 7; 20% of students spent less time
- **lack of sleep:** 24.3% of students is online till midnight or longer (36%)

MEDIA

Students have favourable technical conditions:

- 97.1% own smartphone
- 94.9% have access to computer at home
- 59.6% have tablet
- 53.7% have gaming consoles

Students use media daily:

- 3 to 4 hours (35.2%)
- 5 to 6 hours (26.4%)
- more than 6 hours (22.7%)

Technology and media are used mostly for fun and casual communication.

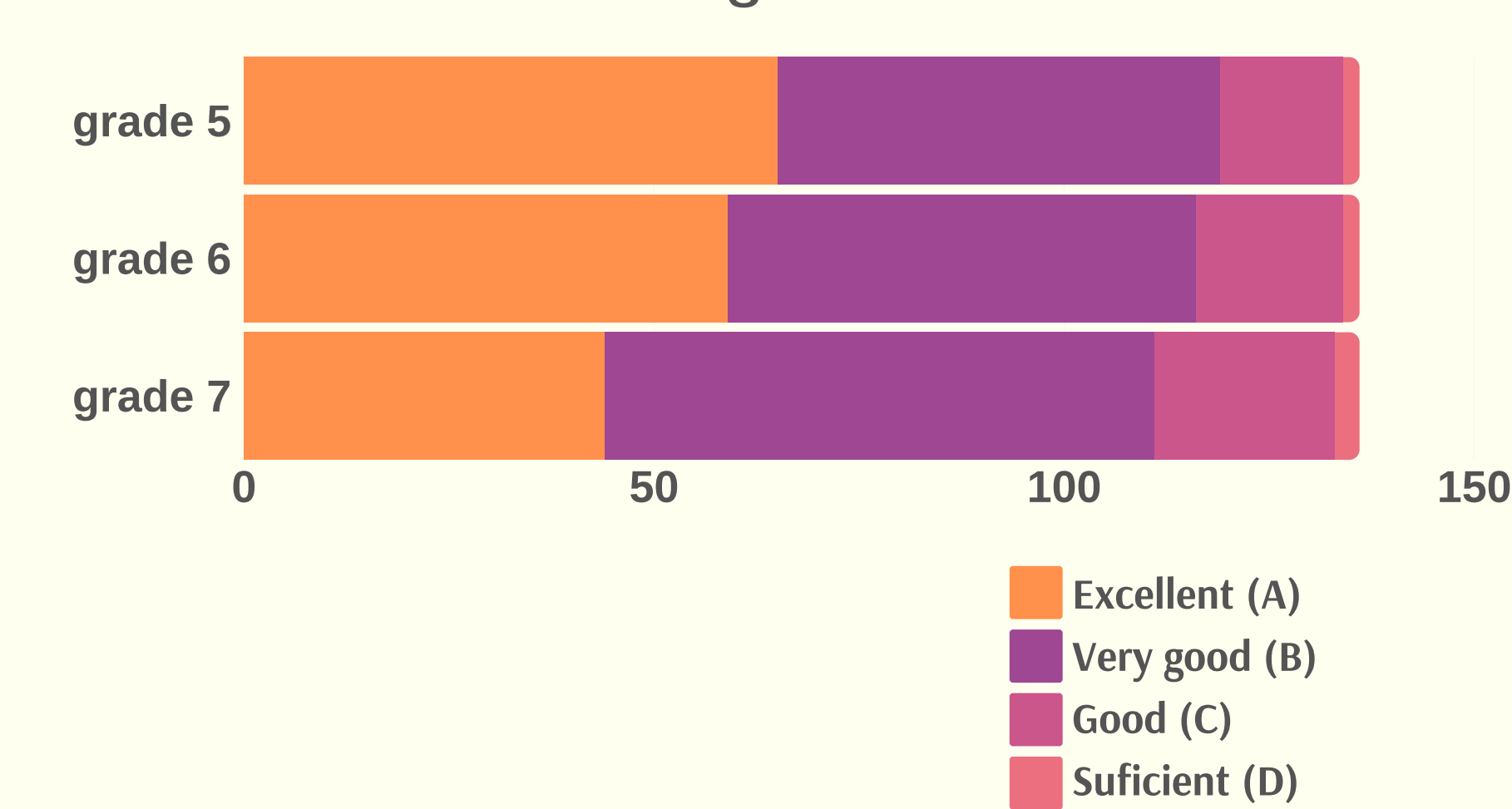
E-resources are considered more valuable than printed ones in school context

- 60.3% of students agree
- gender differences: 76.3% of boys and 57.8% of girls consider e-resources more valuable

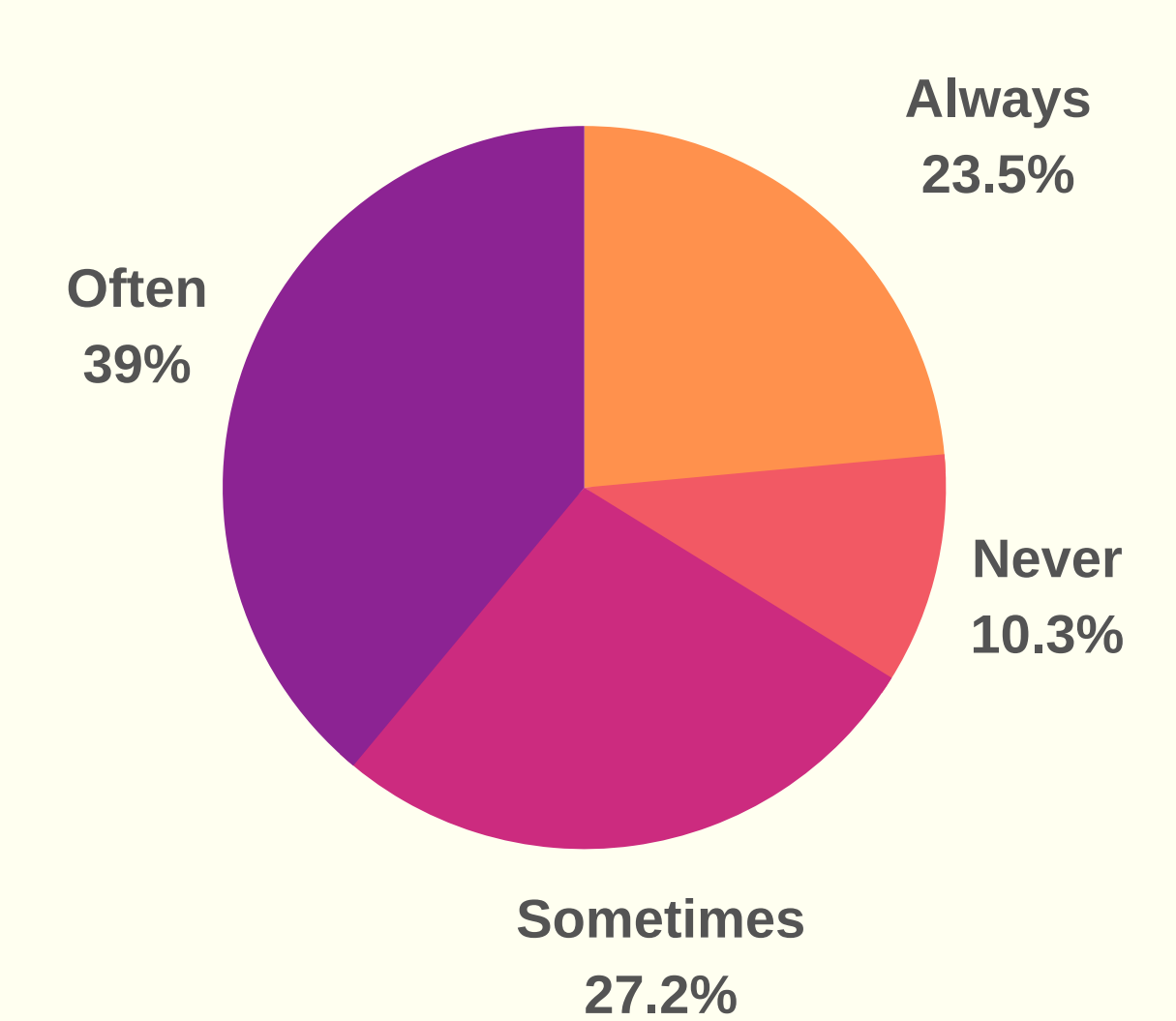
Students are apt to use multitasking – students often use several media while doing homework

DATA ANALYSIS

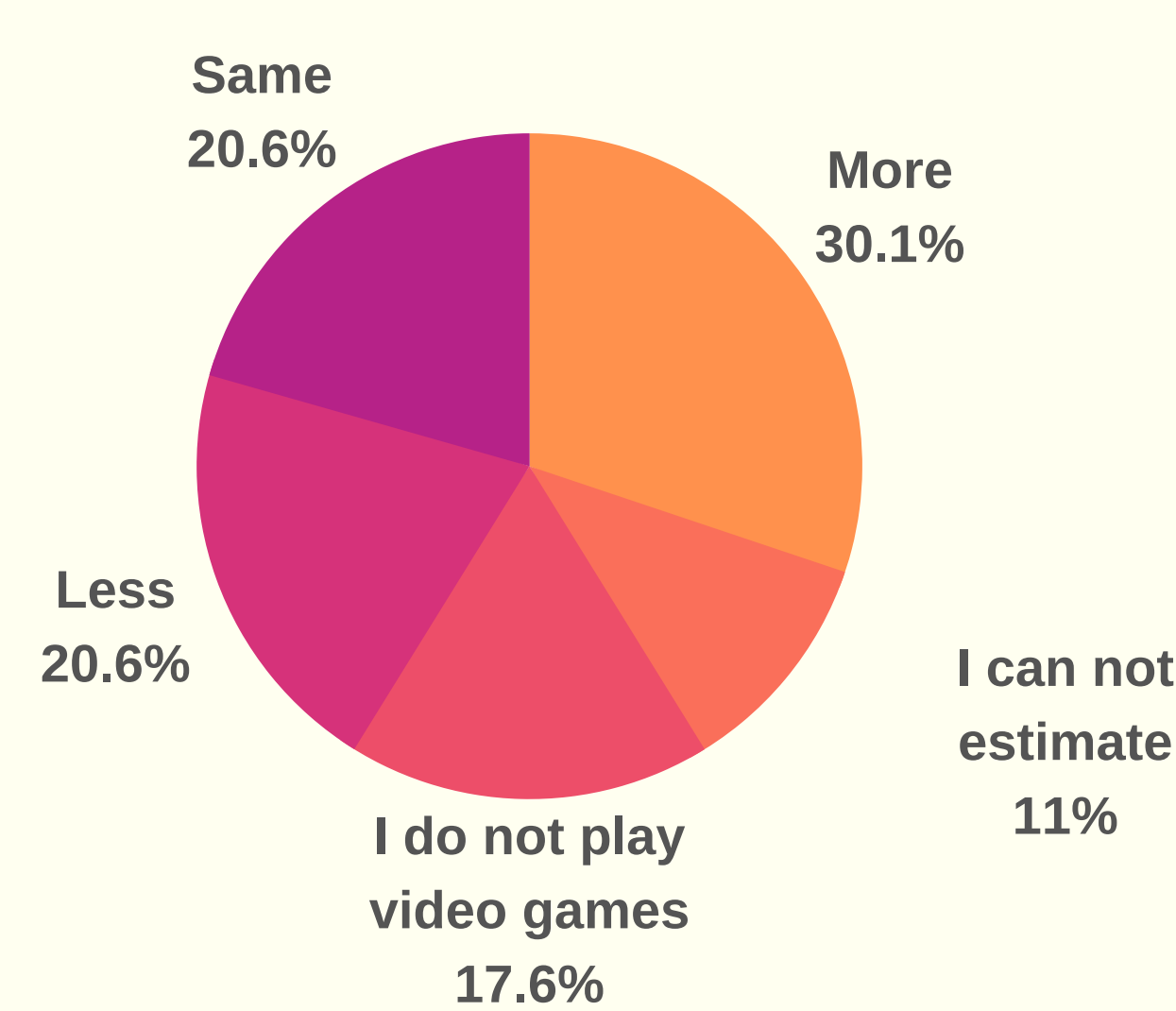
Academic success from grade 5 to 7



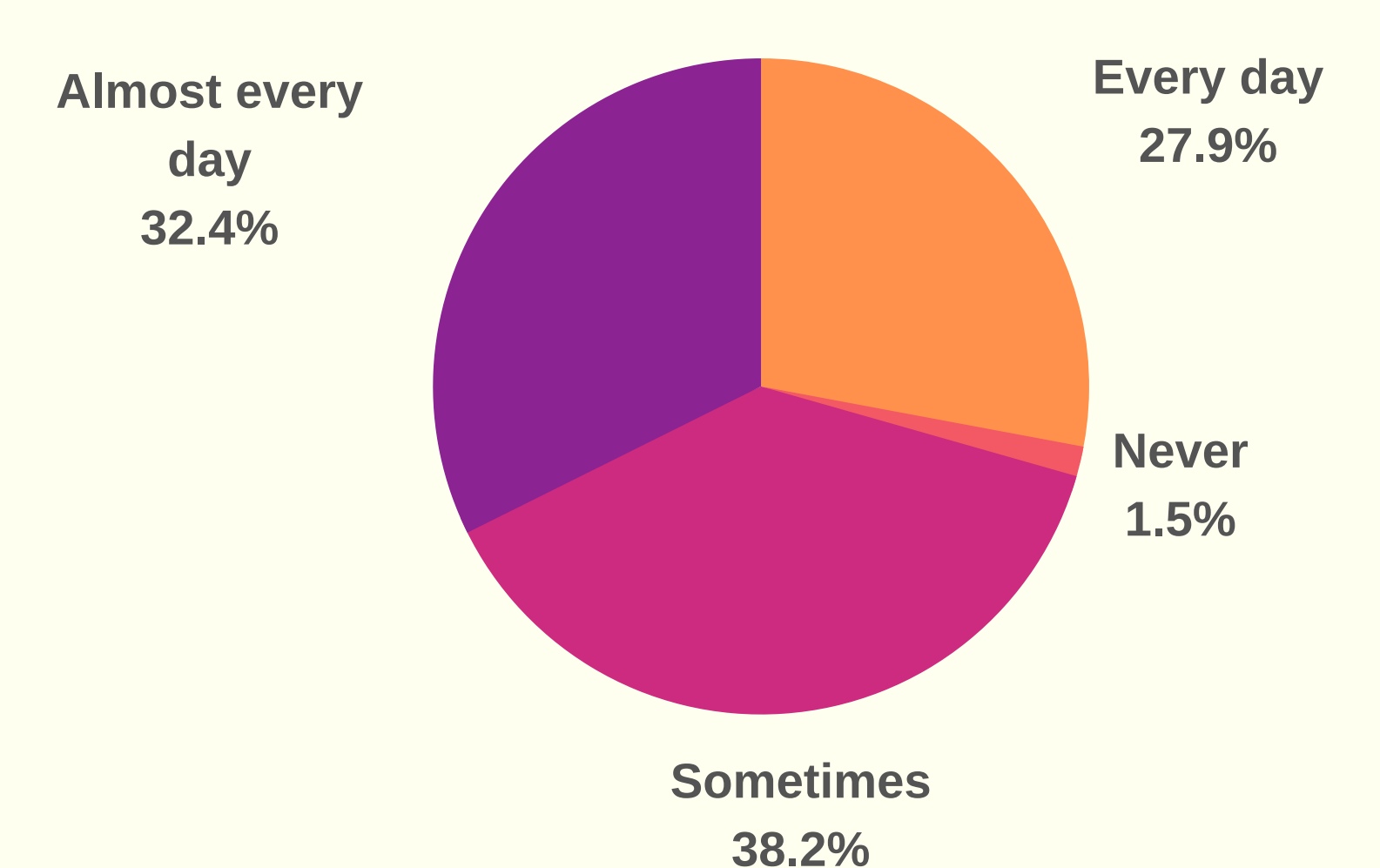
Multitasking: using media while doing homework



Time spent playing video games over the years (grade 5 to 7)



Feeling tired at the beginning of school day



CONCLUSION

- The survey has shown that students are well equipped for using media, but they are using it almost entirely in a non educational purposes.
- The research has shown the correlation between time spent with the media, which increases with age, and the decreasing in academic success.
- This research confirmed that children of this age (grade 8 students) practice multitasking, which can also cause decline of academic success. However, those habits could be directed and used for educational purposes through project work and research tasks.

The role of the school is: to determine the best measure of implementation of the ICT considering students' age, intellectual level and the needs of the *Google generation*; to guide the students towards reliable information by filtering the best sources and by offering the appropriate tools.

School librarians provide the best starting point for the execution of these changes by teaching information and media literacy as well as encourage reading in different formats.

Resources:

1. Berk, R. A. (2009). Teaching Strategies for the Net Generation. Retrieved from https://www.researchgate.net/publication/228346567_Teaching_strategies_for_the_net_generation
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3. Lazić-Lasić, J., Špiranec, S. & Banek Zorica, M. (2012). Izgubljeni u novim obrazovnim okruženjima – pronađeni u informacijskom opismenivanju. Medijska istraživanja, 18 (1), 125-142. Retrieved from <https://hrcak.srce.hr/85384>
4. Milički, J. & Sudarević, A. (2018). Ograničava li medij čitanje: rezultati istraživanja iskustava i stavova učenika šestih i osmih razreda prema e-lectiri. In G. Braim Vlahović & A. Granić (Eds.), XXX. Proletna škola školskih knjižničara RH: Tradicija i suvremenost u radu školskog knjižničara, Proceedings (pp. 288-303). Retrieved from <https://www.azoo.hr/photos/izdanja/tradicija-i-suvremenost-u-radu-sk-1538658980.pdf>
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6. Veen, W. (2007). Homo Zappiens and the Need for New Education Systems. Retrieved from https://www.researchgate.net/publication/253361521_Homo_Zappiens_and_the_Need_for_New_Education_Systems