ADHD Challenges: Get by with a Little Help from Your Apps

Anick Legault, Alice Havel, & Susie Wileman

In collaboration with Mary Jorgensen

Adaptech Research Network and Dawson College

SALTISE Conference 10th Year Anniversary, June 3, 2021 Moving Forward Together: Opportunities and Challenges for Pedagogical Innovation



Fonds de recherche sur la société et la culture QUÉDEC 🏘 🕸







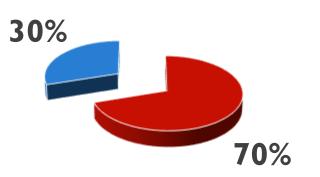
Overview

- 3 studies
 - Compilation of list of Apps
 - 131 Apps for post-secondary students with ADHD
 - Questionnaire: Use of technology for schoolwork
 - Apps most liked and used
 - Interviews: Students with ADHD as App users
 - Use, satisfaction, and wish list



Relevance of ADHD

- 10-20% of Students With Disability in your classes¹
- 2/3 of SWD not registered for access services²
- Between 28% 38% of SWD have ADHD³
- Poor academic performance⁴
 - Lower grades
 - Less likely to graduate

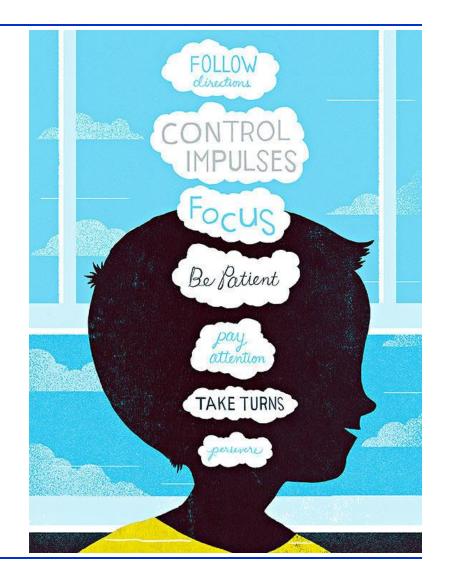


All other disabilities



Main Characteristics of ADHD

- Deficits in executive functioning
 - Focus/impulsivity/distractibility
 - Time management
 - Organization
- Academic difficulties due to challenges with sustained attention
 - Reading comprehension
 - Lengthy writing assignments





Focus of Study #1⁵

- Goal: Compile comprehensive list of apps for postsecondary students with ADHD
 - Impact on academic success
 - Directly support schoolwork
 - Also support daily life demands





Methodology of Study #1

- Examined 23 sources (2017-2020)
 - Google Scholar, Web sites, Facebook groups
 - App Store and Google Play Store (Canada)
- Adaptech focus group study (2018-2019)⁶
 - Composition (7 SWD and 9 professionals)
 - Conclusion: Mobile devices and apps are of extreme importance for SWD both inside and outside the classroom.



Results Study #1

- Annotated list of apps⁷
 - Total of 131 apps
 - All available (on August 1st, 2020)
 - Most free or <\$10
 - Frequency each mentioned
 - Range of 1-9
 - Comprehensive descriptions



Schoolwork Apps – results of study #1

- Most common categories
 - Task management (e.g., Evernote, Microsoft To Do)
 - Focusing + distraction management (e.g., Freedom)
 - Time management (e.g., RescueTime/ Time Timer)
 - Organization (e.g., Dropbox)
 - Literacy (e.g., Read & Write)
 - Text-to-speech (e.g., Voice Dream Reader)



Daily Living Apps – results of Study #1

- Most common categories
 - Wake-up (e.g., Alarmy, FreakyAlarm)
 - Budget and financial tracking (e.g., Mint, YNAB)
 - Email management (e.g., Boomerang Mail, Unroll.Me)



What happened next? Study # 2

- Study: Use of technologies for schoolwork⁸
 - Online questionnaire Fall 2020
 - Content informed by focus groups (from Study #1)
 - 237 Canadian university and college students
 - With and without disabilities
 - Students with ADHD (our primary focus)



Apps <u>Tried</u> by Students

Participants with ADHD but no LD n = 35		All participants with ADHD n = 57		All nondisabled participants n=74	
%	name of app	%	name of app	%	name of app
63%	Dropbox	65%	Dropbox	59%	Dropbox
57%	Google Calendar	61%	Google Calendar	57%	Google Calendar
31%	Evernote	30%	Evernote	39%	Quizlet
26%	Quizlet	30%	Quizlet	18%	Evernote
17%	To Do / Wunderlist	25%	Read & Write	8%	To Do / Wunderlist



Apps Liked by Students

Participants with ADHD but no LD n = 35		All participants with ADHD n = 57		All nondisabled participants n=74	
%	name of app	%	name of app	%	name of app
43%	Google Calendar	47%	Google Calendar	45%	Google Calendar
34%	Dropbox	35%	Dropbox	36%	Dropbox
20%	Quizlet	25%	Quizlet	32%	Quizlet
11%	Read & Write	18%	Read & Write	8%	Evernote
9%	Evernote	7%	Evernote	4%	Pomodoro Timer & To Do List



What's Happening Now? Study # 3

- ADHD Interviews
 - Questions
 - Use of Apps for academic work
 - In-class
 - Out-of-class
 - Level of satisfaction
 - Wish list





Preliminary Findings – Study # 3

- So far, 6 students with ADHD interviewed
- Interesting quotes:
 - Reminder app in Google Calendar: "(...)to schedule daily tasks. Uses both the electronic calendar and a paper agenda. Finds schedule and reminders very helpful."
 - "(...)phone goes with me everywhere whereas a paper agenda can be forgotten at home."



Preliminary Findings – Study # 3 (positive quotes)

- Microsoft OneNote: "Perfect, as it is the one place where I can gather all my notes. It's like having a binder. Very helpful, due to my ADD – allows me to focus. All info is in one place, has helped to organize my studies. It's my # 1."
- **Pomodoro**: "(...)because it prevents me from going off task like checking FaceBook. Study time is scheduled and so are breaks. I need this kind of structure."





Preliminary Findings – Study # 3 (negative quote)

 Todoist: "(...)an organizing program that sends reminders on tasks that need to be completed, however <u>didn't like it, and stopped using</u> it as it <u>created stress</u> by always indicating that tasks were not completed, even when they were being attended to over the course of several days or weeks."





Take-Aways

- Most apps work across various mobile devices
- Importance of daily life apps
- Technology rapidly changing
- Same apps tried and liked across groups
- Students need opportunities to explore apps

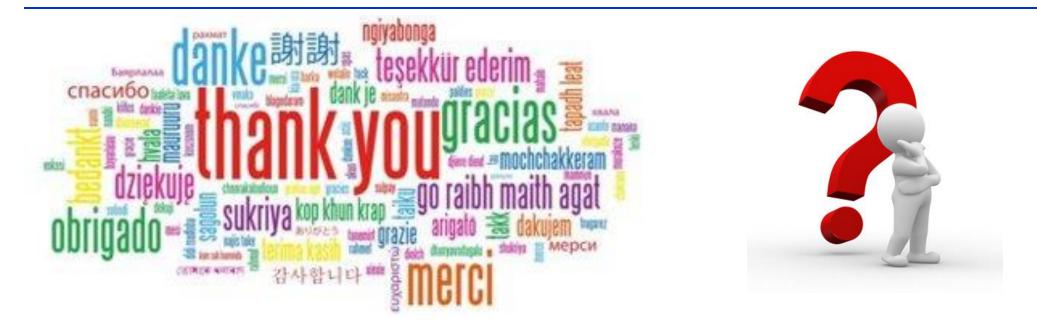


References

- ¹Eagan, M. K., Stolzenberg, E. B., Zimmerman, H. B., Aragon, M. C., Whang Sayson, H. et Rios-Aguilar, C. (2017). The American freshman: National norms fall 2016. Higher Education Research Institute. <u>https://www.heri.ucla.edu/monographs/TheAmericanFreshman2016.pdf</u>
- ² Fichten, C., Jorgensen, M., Havel, A., Legault, A, & Budd, J. (2021). Academic performance and mobile technology use during the COVID-19 pandemic: A comparative study. Journal of Post-Secondary Education and Disability (forthcoming).
- ³Fichten, C., Jorgensen, M., King, L., Havel, A., Heiman, T., Olenik-Shemesh, D., & Kaspi-Tsahor, D. (2019). Mobile technologies that help post-secondary students succeed: A pilot study of Canadian and Israeli professionals and students with disabilities. International Research in Higher Education, 4(3), 35-50. <u>https://doi.org/10.5430/irhe.v4n3p35</u>
- ⁴Budd, J., Fichten, C., Jorgensen, M., Havel, A., & Flanagan, T. (2016). Postsecondary students with specific learning disabilities and with attention deficit hyperactivity disorder should not be considered as a unified group for research or practice. Journal of Education and Training Studies (JETS), 4(4), 206-216. <u>https://doi.org/10.11114/jets.v4i4.1255</u>
- ⁵Fichten, C. S., Havel, A., Jorgensen, M., Arcuri, R., & Vo, C. (2020). Is there an app for that? Apps for post-secondary students with attention hyperactivity disorder (ADHD). Journal of Education and Training Studies, 8(10), 22-28. https://doi.org/10.11114/jets.v8i10.4995
- 6https://adaptech.org/research/personal-technology-in-the-classroom/
- ⁷Jorgensen, M., Arcuri, R., Vo, C., & Fichten, C. (2020, August). Comprehensive list of apps related to the academic performance of post-secondary students with ADHD. Adaptech Research Network.
- ⁸Fichten, C., & Budd, J. (2021). [What apps do students with ADHD and nondisabled students use and like?]. Unpublished raw data.



Thank you! Questions?



Adaptech Research Network: <u>http://www.adaptech.org/</u> Anick Legault: <u>aclegault@dawsoncollege.qc.ca</u> Alice Havel: <u>ahavel@dawsoncollege.qc.ca</u> Susie Wileman: <u>swileman@dawsoncollege.qc.ca</u>

