

Using Automated Data Logging to Track Progress & Plan Intervention: A Case Study

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What we learned – Literature review

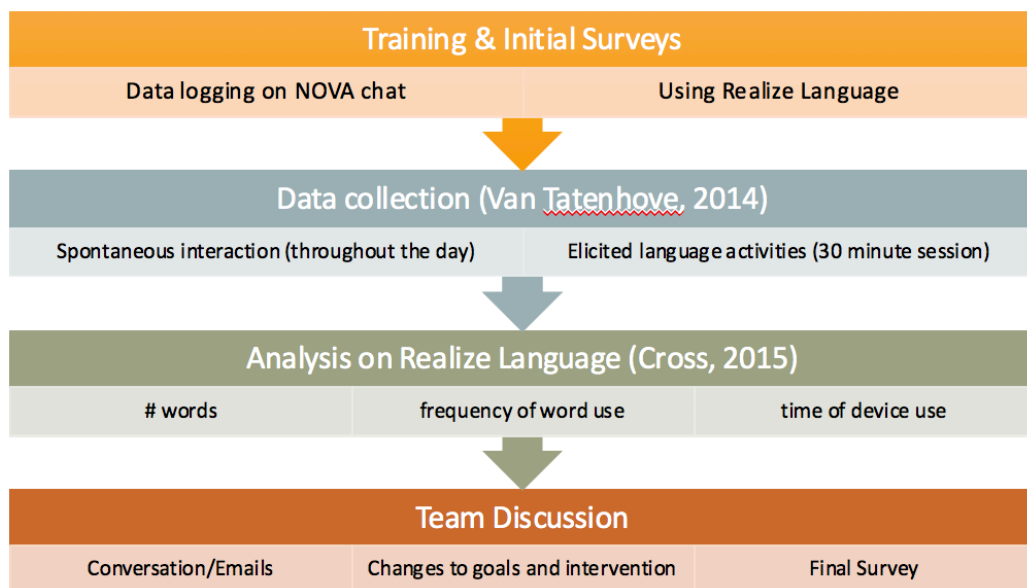
- Automated data logging has been an available feature on some speech generating devices (SGDs) for 30 years.
- Despite its availability, automated data logging is not found in the common practice of most speech-language pathologists (SLPs) working with AAC.
- Traditional language analysis software programs cannot accept files generated by automated data logging.
- Guidelines with regards to how to use data logging in daily practice have not been established.

What we learned – Survey

- Surveyed 22 SLPs working with AAC – 19 responded
- Over half (68%) were not at all familiar with term data logging and didn't know if device had data logging capabilities
- 15 (79%) indicated a likelihood to use data logging if device had feature

Methodology

- Purpose: Explore the value and limitations of using automated data logging with a team in a school-based practice in conjunction with Realize Language web-based analysis tool
- Subject: Case study of an elementary-aged boy using NOVA chat with WordPower Vocabulary
- Team: AAC Specialist, Saltillo Consultant, SLP, Aide, Parent, (Teacher)
- Procedure



Sample 1 – Analysis & Discussion

- Words
 - Word Cloud
 - Shared with mom
 - Motivational for aide
 - Made data more approachable

- Top 10
 - Confirmation of what we already knew. “He mostly used device to ask for iPad.”
- Parts of Speech
 - Discussion re: what happens when SLP is not present
- Time of Use
 - Used at least every day at school
 - Disproportionate across week, why?
 - Times consistently not used, why?
 - No home use, why?
 - Is homework being completed?
- Aided Language Input
 - Despite the use of a gesture to turn data logging on/off, both the SLP and aide indicated:
 - Decrease in aided language input
 - Increase in gestural prompts
 - Concern with adult touching device interfering with data collection
 - Gesture was simple, but still a factor

Sample 1 – The Plan

- Make sure parents understand homework
- Aide to increase different types of word used in the classroom (e.g., more adjectives and verbs)
- Increase aided language input compared to prompting
- Re-evaluate in two months & adjust goals for new IEP (March)

Sample 2 – Summary

- Home use increased!!! Including homework completion
- Increased use overall, with more even distribution across the week
- Slight increase in verbs and adjectives
- More word combinations in the classroom

Sample 2 – the Plan

- Adjust goals in IEP
- Increase vocabulary file from WordPower 48 to WordPower 60
- Collect data again at end of year (May)

Sample 3 – Summary

- Noticeable changes in data from December to May
- Increased use across the day
- Greater variety within Parts of Speech
- More even distribution within Word Clouds
- Top 10 included more functional words
- Demonstrated that progress was made on new goals
- Increased communication among team

Conclusions

- Increased communication between team members
- Increased confidence regarding goal setting and intervention planning
- Increased client’s language and device use
- Provided SLP a framework to use with other clients
- Data logging in conjunction with a web-based analysis tool was worth the time

Possible Barriers Identified

- Time
- Subscription cost
- Obtaining parent permission
- Team member buy-in
- Aided Language Input on client's device

What's Next?

- Current Client (role shift)
 - SLP: responsible for collecting/uploading client data
 - AAC Specialist: responsible for coaching (i.e., training and facilitating discussion)
- Future Clients
 - Educate SLPs within co-op re: Data Logging
 - Work with interested teams to integrate data logging

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