Using ESL and Phonics Methods with Pure Alexia

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Abstract:

デンマーク出身の 26 歳の男性であるクラウスは、デンマーク語と英語の両方を話すことが できるが、出生に際して純粋失読症を患っており、彼自身の名前も含めて、10 語以下しか 読むことができない。われわれは、第二言語としての英語教授法と、詳細かつ専門的なフォニッ クス (Phonics)を利用し、クラウスのような極端な純粋失読者にとって「音声を通じて読む こと (reading via sound)」が可能かどうかを考察した。6 か月の訓練の後、クラウスの単語認 識能力には、限定的ではあるものの明らかな進歩が見られた。

キーワード:

pure alexia, ESL method, phonics, reading via sound, remote lesson

I. Body

Data collection methods used were primarily Skype Screenshare, Webcam, Discord (Sound) and Microsoft Word. The game Minecraft was used for tests. One in-person lesson was done in California.

Klaus, a 26 (now 27) year old man living in Denmark (born and raised), was diagnosed at age 18 with Pure Alexia, having been misdiagnosed with extreme dyslexia from age 7. Pure Alexia is almost always an acquired disorder and often acquired much later in life. People who gain Pure Alexia are often over 20 years old (1), and is primarily caused by brain trauma or stroke. This is also true with Klaus, but the age of which he acquired it is a rather interesting note — at negative 5 minutes of age approximately. Klaus reported that at birth, his oxygen supply was cut off via umbilical cord strangulation, which caused partial brain death before resuscitation. A scan was done at birth which confirmed brain damage.

Klaus showed almost no symptoms of any brain damage except for rare crying, until age ~6 at the beginnings of reading in Elementary school which led to his diagnosis of Dyslexia. He was put into a Denmark disabled school to help support his needs. He was exposed from age 7 to 18 with reading, all of which failed. After age 18, he returned to a doctor who properly diagnosed him with Pure Alexia. In Denmark, English education was part of the curriculum and his natural upbringing, so he is fluent in English as well but only "learned" reading in Danish. He was never taught in a phonetic way as Danish does not have an orthography where spelling indicates pronunciation. (2)

Pure Alexia being treated phonetically is not new nor revolutionary, however it seems to nearly never been done in an individual with a case such as Klaus's, where the "dictionary" (spelling and meaning) of words was not already taught to him before his acquiring of Pure Alexia. Most adults acquire it after being taught and therefore have different challenges than Klaus does in this area as they are able to check words via the "dictionary". With many adults whom already have had the "installation", they find that Motor Control-Kinesthetic treatment works better for them. (3) With the extremely rare case of children, a Phonics system is helpful for them even if they never achieve true reading fluency. (4) However Klaus was never taught Phonics due to the Danish language not having such a system (2). Shelley created a more intensive Phonics method which covers much, but not all, of the English writing and speaking system. So far, there seems to not be a case of an adult using a Phonics system, let alone of a different language system than their native language, to learn to read.

Ⅱ. Goal

Klaus reported some depression with being unable to "be like everyone else" in the "reading world" and being able to understand all of the strange words he saw. To him, seeing a sign, he often commented "That's some pretty writing on there." While his attitude towards it was remarkably well-adjusted, having accepted his inability a few years ago, he did wish to read at least a little. The goal was very simple; to see if learning could be done via sound, Phonics, and lots of practice. If it did not work, after 6 months the lessons would stop. If it did work a little, we would continue until Klaus felt he was not getting better from continued lessons. Shelley set the overall goal to read up to 5 letter words, no farther, for the purposes of seeing how far, and how fast, Klaus could go with reading.

Ⅲ. Lessons Style

Lessons took place using Skype for video and screen-share and Discord for audio due to low quality Skype sound. A writing program (such as Microsoft Office) was then used for typing letters which Shelley showed immediately with a sound. Previous letters were then used to attach to the new sound and letter. "A" just alone, then "a" (pronounced phonemically as "æ") then "b" sound and "ba, bA" and so on. Multiple practices with multiple letters combinations was done.

IV. Tests

Tests were done using the game Minecraft. Signs which can be written on are available in the game and putting things in boxes, mini games, and other such creativity is natural in the game, and tests were easy to design. The first test was 2 letters, half alphabet. The second test was the other half of the alphabet, in which the letters matched with the first letters of common Minecraft items put into the chest with 2 fake options. The third test was 3 letter words that match with Minecraft items, identically to the first two games. The 4th test was a "parkour" (jumping) game. The 5th was designed as a maze where reading the correct words would take you out of it, incorrect words would keep you in it. There is also another multi-length word challenge set up as a 6th test which Klaus will need to match the correct word with the correct item, 3-5 letters in length and possibly harder. Currently, Klaus has completed 4 of the tests and passed with 83%-100% scores.

V. Problems

Of course, in any detailed study of a human brain still in operation, quite a few problems arose and were dealt with in this study. Before starting, issues and concerns were brought up beforehand, some of which are listed below.

- Due to past history of learning with colorcoded cards, no flashcards or color coded anything was used in any lesson or test whatsoever.
- Don't say the words "Don't worry, you're going to learn this one day." It is a trigger from previous teachers.
- Klaus second-guesses himself constantly due to dual-lingual status and previous failed attempts at study and technique training done. Don't change formats too quickly, do lots of practice with 1 sound.
- Don't explain too far in advance the "total plan". Klaus has a tendency to panic at large plans.

One other minor problem Shelley found was Klaus's inability to auto-combine more than two sounds at the same time. It even took a while for that to happen and Klaus reported that hearing two sounds together for the first time amazed him. He has never before been able to hear two sounds together when reading two letters. Three letter combined sounds (basic 1 syllable) has so far not been possible to elicit naturally and more practice for him to read and remember 3 sounds together must be done.

VI. Noticed Improvements

Sound to letter recognition - At the time of writing this paper, Klaus has learned most of the sounds of the English alphabet (with American English pronunciation) which was something he was not aware of before. He has been able to put two sounds together more "innately" (just by looking, albeit slower than normal) but no more than that at current. His speed of reading has improved although there was no quantitative measurement that could be done to determine his speed of reading before starting. We are assuming a number of 0 words per minute as he could not read any words before. A 3-minute timed speed test done with a 3-letter-word-only story resulted in a speed time of 51 words in 2 minutes and 36 seconds with a 64% accuracy, and a 94% accuracy with an untimed reading of 7 minutes and 7 seconds for the same story.

A 2-4 letter word story test was also done with an accuracy of 66%, reading 24 words (of a total 63 words) in 3 minutes.

Word length - He is now up to reading 4 letter words, letter by letter, something he was unable to do so before with no previous "dictionary" in his brain. His ability to guesstimate meanings of words after sound-reading each letter has increased although there has been no testing of guessimation increase at this time.

VII. Future Development

At the time of this writing, Klaus is 95% done with sound learning, still having a few "combined letter" sounds (such as sh and gh) to do. Current progress stopped in October, partially due to Klaus's job and the holidays. Shelley is planning the next stage after 5-letter reading is reached, but only in a minor way as this decision to continue both this lesson and this research rests with Klaus. Another area which can be researched is Klaus's writing, which currently he cannot do without copying, except for his name. This possibility has been talked about but at the present time, Klaus does not have enough fluency with reading in order to write.

$\texttt{VII.} \quad \textbf{Conclusion}$

Klaus is gaining a minor amount of reading ability using an intensive version of the phonics system in English. He is semi-reliably reading 3 and 4 letter words and unable to read more than 4 letter words. This is a noticed improvement over reading only two letter words and less than 7 other words total. His reading speed has increased slightly, his ability to read at all has skyrocketed comparative to where he started, and overall confidence in the process is higher. Both parties are hopeful that future continued improvement is possible.

References and Notes

- Note. There is no data regarding the average age of Pure Alexia people. The info given is from multiple case studies of participants whom have Pure Alexia, most of them being over the age of 20. Some of the case studies are listed below.
- 2 http://www.yorku.ca/earmstro/scandinavia/ Danish/Danish%20Breakdown%20for%20
 VASTA%20Conf%202013.pdf
- 3 http://aphasiology.pitt.edu/1938/1/viewpaper. pdf
- 4 http://onlinelibrary.wiley.com/doi/10.1111/ j.1469-8749.1998.tb08218.x/epdf

Further Case Studies and links to other research Visual processing in pure alexia: a case study. https://www.ncbi.nlm.nih.gov/pubmed/19446802 Rehabilitation of pure alexia: A review https://www.ncbi.nlm.nih.gov/pmc/articles/ PMC3805423/

Pure Alexia (Letter by Letter reading) https://books.google.co.jp/books?id=QIw2QPy4v hgC&pg=PA200&lpg=PA200&dq=pure+alex

ia+case+study&source=bl&ots=2OSESpI7nI &sig=0IfJw2pvRe-DXrojP8i3uqlSNaY&hl=e n & s a = X & v e d = 0 a h U K E w j Q -8aNnqDRAhWDTrwKHYY1CC0Q6AEITjA I#v=onepage&q=pure%20alexia%20case%20 study&f=false

The evolution of pure alexia: A longitudinal study of recovery

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海外研修(ハワイ) 2016 実施報告

Implementation Report on Overseas Study in Hawaii in 2016

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Abstract:

Sano College provided a 6-day training program in Hawaii from 12th to 17th September in 2016. This report analyzes current conditions of tourism industry and bridal industry there and describes the reason why Hawaii was chosen for a training program. The report also explains the program curriculum in detail and introduces the feedback of students who participated in the program and finally refers to the tasks ahead.

キーワード:

ハワイ、観光、ブライダル、ホテル、ハワイ文化

はじめに

佐野短期大学で実施している現在のハワイ 研修は平成28年度で2回目である。2回目 は第1回目と同様に、平成28年9月12日~ 17日の4泊6日の日程でオアフ島ホノルル での研修であった。今回は男子学生2名、女 子学生11名の合計13名の学生が参加した。 1回目は6名の参加で観光フィールドの2年 生が参加し、非常に好評だったため、次の学 年への影響も大きかったと考えている。平成 27年度の参加者は観光フィールドの学生で あり、全員がフラサークルのメンバーである。 平成28年度に参加した女子学生11名中、9 名はフラサークルのメンバーである。ハワイ はフラダンスの本場であるということも参加 決定の大きな要因となっていると思われる。 さらに学生の様子を見ていると、先輩、後輩 のコミュニケーションの中で、参加の可否が

	表 1 平成 27 年度参加	者の内訳
学年	所属フィールド	人数
2 年	観光	6名

表	2	平成	28	年度参加者の内訳
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学年	所属フィールド	人数
2 年	観光	7名
2 年	医療事務	2名
1年	観光	3名
1年	英 語	1名
	合 計	13 名

決定される傾向にあるようだ。

Ⅱ.ハワイを研修先に選定した理由

海外研修をハワイで提案した理由は、ハワ イは観光業界およびブライダル業界にとって は特に重要な場所であることが挙げられる。