Aftonomos, L. B., et al. (1997). "Promoting recovery in chronic aphasia with an interactive technology." Arch Phys Med Rehabil **78**(8): 841-846.

OBJECTIVE: To assess chronic aphasic patients' responses to resumption of therapy using an innovative, computer-based treatment system. DESIGN: Patients were assessed pretreatment and posttreatment using standardized assessment tools. Pretreatment and posttreatment performance score means were computed and compared, with statistical significance of the differences established using a one-tailed, matched t test. SETTING: The work was conducted at (1) a Veterans Affairs medical center participating in treatment research and (2) a regional aphasia center delivering therapy services for reimbursement. PATIENTS: Chronic aphasic patients (n = 23) from 6 months to more than 15 years postonset were enrolled in the study. They included a wide range of types and severities of aphasia, and all had received traditional speech-language therapy services earlier. INTERVENTIONS: All patients were treated in 1-hour clinical sessions by speech-language pathologists using the designated computer-based treatment system. All but one of the patients had access to the computer-based treatment system at home for practice between clinical therapy sessions. MAIN OUTCOME MEASURES: The outcome measures used were (1) the Porch Index of Communicative Ability (PICA), (2) the Boston Naming Test (BNT), (3) the Western Aphasia Battery (WAB), and (4) the Boston Diagnostic Aphasia Examination (BDAE). RESULTS: The majority of patients improved significantly in multiple modalities as assessed by these instruments. CONCLUSIONS: Specific measures of language function can be broadly, positively, and significantly influenced by computer-based language therapy in chronic aphasia.

Al Mahmud, A. and J.-B. Martens (2016). "Social networking through email: studying email usage patterns of persons with aphasia." Aphasiology **30**(2-3): 186-210.

Balachandran, I. and E. Ascenso (2014). "Development of an impairment-based individualized treatment workflow using an iPad-based software platform." Seminars in Speech and Language **35**: 38-50.

Brandenburg, C., et al. (2016). "The development and accuracy testing of CommFit™, an iPhone application for individuals with aphasia." Aphasiology **30**(2-3): 320-338.

Brandenburg, C., et al. (2013). "Mobile computing technology and aphasia: An integrated review of accessibility and potential uses." Aphasiology **27**(4): 444-461.

Caute, A., et al. (2016). "Rekindling the love of books -- a pilot project exploring whether e-readers help people to read again after a stroke." Aphasiology **30**(2-3): 290-319.

Caute, A. and C. Woolf (2016). "Using voice recognition software to improve communicative writing and social participation in an individual with severe acquired dysgraphia: an experimental single-case therapy study." Aphasiology **30**(203): 245-268.

Cherney, L. R. (2010). "Oral reading for language in aphasia (ORLA): evaluating the efficacy of computer-delivered therapy in chronic nonfluent aphasia." Top Stroke Rehabil **17**(6): 423-431.

PURPOSE: This study examined the efficacy of a treatment, Oral Reading for Language in Aphasia (ORLA), delivered by computer to individuals with chronic nonfluent aphasia and compared its efficacy with the same treatment delivered by a speech-language pathologist (SLP). METHOD: With ORLA, the person with aphasia systematically and repeatedly reads aloud sentences, first in unison and then independently. Following a no-treatment period, 25 individuals with chronic nonfluent aphasia were randomly assigned to receive 24 sessions of ORLA, 1-3 times per week, either by computer or by the SLP. RESULTS: For participants receiving computer ORLA, change made on the Western Aphasia Battery Aphasia Quotient (WAB-AQ) during the treatment phase was larger than the change made during the no-treatment phase. Positive effect sizes for change during treatment compared with change during the no-treatment phase were obtained and were benchmarked as medium or large for the WAB-AQ and discourse measures. There was no significant difference between outcomes for computer ORLA compared with SLP-ORLA. CONCLUSION: Low-intensity ORLA, delivered by computer to individuals with chronic nonfluent aphasia, is efficacious and may be equivalent to ORLA delivered by an SLP.

Cherney, L. R. and A. S. Halper (2008). "Novel technology for treating individuals with aphasia and concomitant cognitive deficits." Top Stroke Rehabil **15**(6): 542-554.

PURPOSE: This article describes three individuals with aphasia and concomitant cognitive deficits who used state-of-theart computer software for training conversational scripts. METHOD: Participants were assessed before and after 9 weeks of a computer script training program. For each participant, three individualized scripts were developed, recorded on the software, and practiced sequentially at home. Weekly meetings with the speech-language pathologist occurred to monitor practice and assess progress. Baseline and posttreatment scripts were audiotaped, transcribed, and compared to the target scripts for content, grammatical productivity, and rate of production of script-related words. Interviews were conducted at the conclusion of treatment. RESULTS: There was great variability in improvements across scripts, with two participants improving on two of their three scripts in measures of content, grammatical productivity, and rate of production of scriptrelated words. One participant gained more than 5 points on the Aphasia Quotient of the Western Aphasia Battery. Five positive themes were consistently identified from exit interviews: increased verbal communication, improvements in other modalities and situations, communication changes noticed by others, increased confidence, and satisfaction with the software. CONCLUSION: Computer-based script training potentially may be an effective intervention for persons with chronic aphasia and concomitant cognitive deficits.

Choi, Y. H., et al. (2015). "A Telerehabilitation Approach for Chronic Aphasia Following Stroke." Telemed J E Health.

BACKGROUND: Intensive speech therapy improves language function in patients with chronic aphasia, although treatment in the acute phase is more effective than in the

chronic phase. Unfortunately, most patients with stroke go untreated due to socioeconomic problems. This study was performed to develop and test a speech therapy-based telerehabilitation program (iAphasia), suitable for use on a mobile device platform, which would expand access to therapy to patients who frequently go untreated. SUBJECTS AND METHODS: We enrolled 8 patients with chronic poststroke aphasia to receive therapy via our iPad(R) (Apple, Cupertino, CA)-based telespeech therapy program, iAphasia. Participants received 4 weeks of telespeech therapy using iAphasia, which generates six domains with six levels of difficulty. We compared pre- and posttreatment scores on the Korean version of the Western Aphasia Battery (K-WAB) to evaluate effectiveness. Additionally, a 1-month follow-up assessment was performed. RESULTS: We investigated user satisfaction using a questionnaire to assess the feasibility of iAphasia. After the 4-week treatment, language function as measured by the K-WAB improved significantly. The improvement was persistent at the 1-month follow-up visit. The degree of improvement was strongly associated with usage time, regardless of participants' age and severity of aphasia. Overall, satisfaction with iAphasia was rated high. CONCLUSIONS: The results from this study suggest it to be an effective and feasible treatment method for chronic aphasia, although follow-up studies with more subjects and a control group are needed for a more thorough assessment.

Des Roches, C., A., et al. (2014). "Effectiveness of an impairment-based individualized rehabilitation program an iPad-based software platform." Frontiers in Human Neuroscience **8**.

Doesborgh, S., et al. (2004). "Cues on request: The efficacy of Multicue, a computer program for wordfinding therapy." Aphasiology **18**(3): 213-222.

Background : Semantic and word form cues have been shown to have long-term effects on naming in aphasia. Multicue is a computer program that offers a variety of cues for improving word finding. It stimulates the users' independence by encouraging them to discover themselves which cues are most helpful.

Aims : We investigated the effects of Multicue on naming and verbal communication.

Methods & Procedures : A total of 18 individuals with aphasia caused by stroke, who had completed intensive impairment-oriented treatment, were randomised to 10-11 hours of Multicue (n = 8) or no treatment (n = 10).

Outcomes & Results : Only the Multicue group improved on the Boston Naming Test. However, mean improvement did not differ significantly between the treated and untreated groups, neither for the BNT (95% CI: -4.5 to 26.1), nor for the ANELT-A (95% CI: -2.4 to 9.4).

Conclusions : In the chronic phase of aphasia, following impairment-oriented treatment, Multicue may have a beneficial effect on word finding in picture naming, but not on verbal communication. The effect of Multicue may be the result either of self-cueing or of improved access. The lack of generalisation to verbal communication is discussed.

Fink, R., et al. (2005). "Computer-assisted treatment of word retrieval deficits in aphasia." Aphasiology **19**(10-11): 943-954.

Fink, R. B., et al. (2002). "A computer-implemented protocol for treatment of naming disorders: Evaluation of clinician-guided and partially self-guided instruction." Aphasiology **16**(10-11): 1061-1086.

Notes that computer-based rehabilitation programs are available for patients' use at home and in the clinical setting, yet there is meagre outcome data associated with their usefulness under self- and/or clinician-guided conditions. This paper assessed the benefits of a computer-delivered, hierarchical phonological cueing protocol (cued naming) under 2 conditions of instruction: (1) with full clinician guidance, or (2) in partial independence. The authors employed a single-subject experimental design, which was replicated over 6 chronic aphasic subjects (aged 54-64 yrs), 3 in each instruction condition. Subjects with deficits identified as primarily phonological in nature were administered a phonological treatment, utilizing a computerized therapy program (MossTalk Words), under 1 of the 2 conditions. Training-specific acquisition and maintenance was demonstrated in both conditions. Limited and variable generalization patterns were noted. It is concluded that chronic aphasic individuals with moderate-to-severe phonologically based naming impairment can benefit from a computerized cued-naming protocol and independent work on the computer can be an effective adjunct to clinician-guided therapy. (PsycINFO Database Record (c) 2007 APA, all rights reserved).

Holland, A. L. (2008). "Recent advances and future directions in aphasia therapy." Brain Impairment **9**(02): 179-190.

Holland, A. L., et al. (2012). "How to use apps clinically in the treatment of aphasia." Seminars in Speech and Language **33**(3): 223-233.

Hoover, E. L. and A. Carney (2014). "Integrating the iPad into an Intensive, Comprehensive Aphasia Program." Seminars in Speech and Language **35**(1): 25-37.

The proliferation of tablet technology and the development of apps to support aphasia rehabilitation offer increasing opportunities for speech-language pathologists in a clinical setting. This article describes the components of an Intensive Comprehensive Aphasia Program at Boston University and details how usage of the iPad (Apple Inc., Cupertino, CA) was incorporated. We describe how the iPad was customized for use in individual, dyadic, and group treatment formats and how its use was encouraged through home practice tasks. In addition to providing the participants with step-by-step instructions for the usage of each new app, participants had multiple opportunities for practice across various treatment formats. Examples of how the participants continued using their iPad beyond the program suggest how the usage of this device has generalized into their day-to-day life. An overall summary of performance on targeted linguistic measures as well as an analysis of functional and quality-of-life measures reveal statistically significant improvements pre- to posttreatment.

Katz, R. C. and R. T. Wertz (1992). "Computerized hierarchical reading treatment in aphasia." Aphasiology **6**(2): 165-177.

Katz, R. C. and R. T. Wertz (1997). "The efficacy of computer-provided reading treatment for chronic aphasic adults." Journal of speech, language, and hearing research : JSLHR **40**(3): 493-507.

We examined the effects of computer-provided reading activities on language performance in chronic aphasic patients. Fifty-five aphasic adults were assigned randomly to one of three conditions: computer reading treatment, computer stimulation, or no treatment. Subjects in the computer groups used computer 3 hours each week for 26 weeks. Computer reading treatment software consisted of visual matching and reading comprehension tasks. Computer stimulation software consisted of nonverbal games and cognitive rehabilitation tasks. Language measures were administered to all subjects at entry and after 3 and 6 months. Significant improvement over the 26 weeks occurred on five language measures for the computer reading treatment group, on one language measure for the computer stimulation group, and on none of the language measures for the no-treatment group. The computer reading treatment group displayed significantly more improvement on the Porch Index of Communicative Ability "Overall" and "Verbal" modality percentiles and on the Western Aphasia Battery Aphasia "Quotient" and "Repetition" subtest than the other two groups. The results suggest that (a) computerized reading treatment can be administered with minimal assistance from a clinician, (b) improvement on the computerized reading treatment tasks generalized to non-computer language performance, (c) improvement resulted from the language content of the software and not stimulation provided by a computer, and (d) the computerized reading treatment we provided to chronic aphasic patients was efficacious.

Kelly, H., et al. (2016). "Narrowing the "digital divide" -- facilitating access to computer technology to enhance the lives of those with aphasia: a feasibility study." Aphasiology **30**(2-3): 133-163.

Kiran, S. (2014). "Detecting small and large fluctuations in language and cognitive performance: a longitudinal rehabilitation case study." International Journal of Physical Medicine & Rehabilitation **2**.

Kiran, S., et al. (2014). "Development of an impairment-based individualized treatment workflow using an ipad-based software platform." Seminars in Speech and Language **35**: 38-50.

Kurland, J., et al. (2014). "iPractice: Piloting the Effectiveness of a Tablet-Based Home Practice Program in Aphasia Treatment." Seminars in Speech and Language **35**(1): 51-64.

The current study investigated the effectiveness of a home practice program based on the iPad (Apple Inc., Cupertino, CA), implemented after 2 weeks of intensive language therapy, for maintaining and augmenting treatment gains in people with chronic poststroke aphasia. Five of eight original participants completed the 6-month home practice program in which they autonomously practiced retrieving words for objects and actions. Half of these words had been trained and half were untrained during therapy. Practice included tasks such as naming to confrontation, repeating from a video model,

and picture/word matching presented on an iPad. All participants maintained advances made on words trained during the intensive treatment and additionally were able to learn new words by practicing daily over a 6-month period. The iPad and other tablet devices have great potential for personalized home practice to maintain and augment traditional aphasia rehabilitation. It appears that motivation to use the technology and adequate training are more important factors than age, aphasia type or severity, or prior experience with computers.

Lee, J. B. and L. R. Cherney (2008). "The changing "face" of aphasia therapy." Perspectives on Neurophysiology and Neurogenic Speech and Language Disorders **18**(1): 15-23.

Menger, F., et al. (2016). "Aphasia in an Internet age: wider perspectives on digital inclusion." Aphasiology **30**(2-3): 112-132.

Messamer, P., et al. (2016). "BangaSpeak: An example of app design for aphasia clients and SLP users." Aphasiology **30**(2-3): 164-185.

Palmer, R., et al. (2012). "Computer therapy compared with usual care for people with long-standing aphasia poststroke: a pilot randomized controlled trial." Stroke **43**(7): 1904-1911.

BACKGROUND AND PURPOSE: The purpose of this study was to test the feasibility of conducting a randomized controlled trial to study the effectiveness of self-managed computer treatment for people with long-standing aphasia after stroke. METHOD: In this pilot single-blinded, parallel-group, randomized controlled trial participants with aphasia were allocated to self-managed computer treatment with volunteer support or usual care (everyday language activity). The 5-month intervention period was followed by 3 months without intervention to investigate treatment maintenance. RESULTS: Thirty-four participants were recruited. Seventeen participants were allocated to each group. Thirteen participants from the usual care group and 15 from the computer treatment group were followed up at 5 months. An average of 4 hours 43 minutes speech and language therapy time and 4 hours volunteer support time enabled an average of 25 hours of independent practice. The difference in percentage change in naming ability from baseline at 5 months between groups was 19.8% (95% CI, 4.4-35.2; P=0.014) in favor of the treatment group. Participants with more severe aphasia showed little benefit. Results demonstrate early indications of cost-effectiveness of self-managed computer therapy. CONCLUSIONS: This pilot trial indicates that self-managed computer therapy for aphasia is feasible and that it will be practical to recruit sufficient participants to conduct an appropriately powered clinical trial to investigate the effectiveness of self-managed computer therapy for people with long-standing aphasia. Clinical Trial Registration- http://www.controlled-trials.com/. Unique identifier: ISRCTN91534629.

Ramsberger, G. and B. Marie (2007). "Self-administered cued naming therapy: a single-participant investigation of a computer-based therapy program replicated in four cases." Am J Speech Lang Pathol **16**(4): 343-358.

PURPOSE: This study examined the benefits of a self-administered, clinician-guided, computer-based, cued naming therapy. Results of intense and nonintense treatment schedules were compared. METHOD: A single-participant design with multiple baselines across behaviors and varied treatment intensity for 2 trained lists was replicated over 4 participants. Two lists of words were treated sequentially. The same methods and equal numbers of treatment sessions were used, but the number of sessions per week differed across word lists: nonintense (2/week) or intense (5/week). Probes of performance on both word lists were carried out to examine acquisition, maintenance, and generalization. RESULTS: There was strong evidence of improved naming (acquisition) of trained words in 3 of the 4 participants regardless of treatment intensity. There was strong evidence of maintenance for 1 participant and moderate evidence for the remaining 3 participants. Evidence of generalization to untrained words was weak. CONCLUSIONS: Results suggest that self-administered, computer-based, cued naming therapy using a common mixed-cue protocol may be beneficial to a wide range of persons with aphasia regardless of treatment schedule. If results are replicated with a larger sample, treatments such as this may be a low-cost supplement or extension to traditional aphasia therapy.

Raymer, A. M., et al. (2006). "Computerised training for impairments of word comprehension and retrieval in aphasia." Aphasiology **20**(2-4): 257-268.

Background: Semantic comprehension training paired with verbal production leads to improved word retrieval in individuals with aphasia. Few studies have also examined effects of such training for word comprehension. MossTalk Words includes a training module to provide semantic comprehension training via computerised exercises. Variations in the treatment schedule may influence the impact of word retrieval and comprehension treatment gains.

Aims: The purpose of this study was to investigate the effects of the Multi-Mode Matching Exercises module of MossTalk Words for improving word comprehension and retrieval in individuals with aphasia. Effects of training were contrasted for two treatment schedules.

Methods & Procedures: Five individuals with word retrieval impairments associated with aphasia participated. Two had word comprehension difficulties suggesting semantic anomia, and three others with intact comprehension had impairments suggesting phonologic anomia. In a single-participant design, we investigated effects of training provided via computer with MossTalk multi-mode matching exercises (spoken and written word/picture matching) paired with spoken rehearsal. All participated in two phases of training administered 1-2 times/week and 3-4 times/week, with order of phases counterbalanced across participants.

Outcomes & Results: Improvements in word/picture yes/no verification for trained and some untrained words associated with large effect sizes ($d > 2.5$) were evident in one of two participants when trained 1-2 times/week. Increases in picture naming associated with large effect sizes for trained words were noted in 515 participants when trained 4-5 times/week, and in 2/5 participants when trained 1-2 times/week. Increases in picture naming for untrained words were evident in 2/5 participants in the more frequent

training schedule. At I month post training, picture naming performance remained above baseline levels, with little difference evident between sets trained with the two different training schedules.
Conclusions: Computerised lexical training exercises may lead to increases in word comprehension and production, particularly for the target words trained. More frequent training leads to greater improvements during acquisition than less frequent training, but that advantage diminishes at 1 month post treatment, suggesting that a less frequent training schedule may be just as useful as more frequent training for promoting long-term effects of lexical training.

Routhier, S., et al. (2016). "Smart tablet for smart self-administered treatment of verb anomia: two single-case studies in aphasia." Aphasiology **30**(2-3): 269-289.

Salis, C. and F. Hwang (2016). "Digital technology and aphasia." Aphasiology **30**(2-3): 109-111.

Schröder, C., et al. (2007). "Computer-aided therapy in aphasia therapy: evaluation of assignment criteria." International Journal of Rehabilitation Research **30**(4): 289-295.

Stark, B. C. and E. A. Warburton (2016). "Improved language in chronic aphasia after self-delivered iPad speech therapy." Neuropsychological Rehabilitation: 1-14.

Steele, R. D., et al. (2014). "Combining Teletherapy and On-line Language Exercises in the Treatment of Chronic Aphasia: An Outcome Study." Int J Telerehabil **6**(2): 3-20.
We report a 12-week outcome study in which nine persons with long-term chronic aphasia received individual and group speech-language teletherapy services, and also used on-line language exercises to practice from home between therapy sessions. Participants were assessed at study initiation and completion using the Western Aphasia Battery, a portion of the Communicative Effectiveness Index, ASHA National Outcome Measurement System, and RIC Communication Confidence Rating Scale for Aphasia; additionally participants were polled regarding satisfaction at discharge. Pretreatment and post-treatment means were calculated and compared, and matched t-tests were used to determine significance of improvements following treatment, with patterns of independent on-line activity analyzed. Analysis of scores shows that means improved on most measures following treatment, generally significantly: the WAB AQ improved +3.5 ($p = .057$); the CETI Overall (of items administered) - +17.8 ($p = .01$), and CCRSA Overall - + 10.4 ($p = .0004$). Independent work increased with time, and user satisfaction following participation was high.

Swales, M. A., et al. (2015). "Feature rich, but user-friendly: Speech pathologists' preferences for computer-based aphasia therapy." International Journal of Speech-Language Pathology: 1-14.

Szabo, G. and J. Dittelman (2014). "Using mobile technology with individuals with aphasia: Native iPad features and everyday apps." Seminars in Speech and Language **35**(1): 5-16.

Thompson, C. K., et al. (2010). "Sentactics(R): Computer-Automated Treatment of Underlying Forms." Aphasiology **24**(10): 1242-1266.

BACKGROUND: Treatment of Underlying Forms (TUF) is a linguistically-based treatment for improving agrammatic sentence deficits, which enjoys a substantial database attesting to its efficacy for improving both sentence comprehension and production in agrammatic aphasia. However, TUF requires considerable linguistic background to administer and administration time can exceed the number of treatment sessions allotted in toto for reimbursement by third party payors in the United States. Thus, Sentactics(R), an interactive computer system that enables delivery of TUF by a virtual clinician was developed. AIMS: This study tested the effects of Sentactics(R) on the acquisition and generalized production and comprehension of complex sentences. Additionally, a direct comparison of the results of computer-delivered Sentactics(R) and clinician-delivered TUF was undertaken. METHODS; PROCEDURES: Twelve agrammatic aphasic speakers participated in the study, with six receiving Sentactics(R) and six serving as experimental controls, who received no treatment. All participants were administered pre- and post-treatment sentence comprehension and production tests and other measures to evaluate the effects of Sentactics(R). Performance of the Sentactics(R) group also was compared to eight agrammatic patients who previously received clinician-delivered TUF treatment, identical to that delivered via Sentactics(R), but with a human clinician. OUTCOMES #ENTITYSTARTX00026; RESULTS: Sentactics(R) significantly improved all six aphasic speakers' ability to comprehend and produce both trained and untrained, linguistically related, complex sentences as compared to six agrammatic control participants who did not receive Sentactics(R). In addition, comparing the results of the Sentactics(R) to clinician-delivered TUF revealed no significant differences between approaches with regard to acquisition or generalization patterns. CONCLUSIONS: These data provide further support for the efficacy of TUF and demonstrate the viability of computer-delivered therapies in the field of aphasia treatment.

van de Sandt-Koenderman, M. (2004). "High-tech AAC and aphasia: widening horizons?" Aphasiology **18**(3): 245-263.

van de Sandt-Koenderman, M., et al. (2005). "A computerized communication aid for people with aphasia." Disability and Rehabilitation **27**(9): 529-533.

van de Sandt-Koenderman, W. M. (2011). "Aphasia rehabilitation and the role of computer technology: can we keep up with modern times?" International Journal of Speech-Language Pathology **13**(1): 21-27.

Numerous computer applications have been developed specifically for aphasia rehabilitation. In this paper, the role of these computer programs is discussed in relation to three complementary treatment approaches in aphasia rehabilitation: disorder-oriented treatment, functional treatment, and participation-oriented treatment. Most of the programs available focus on disorder-oriented treatment and several studies

have reported a beneficial effect on language skills. Nowadays, in the context of disorder-oriented treatment, these applications are indispensible to achieve an adequate treatment frequency of at least 2 hours per week. Computer applications aiming at functional and social participation goals are less well-developed. Several studies show that high-technology AAC can be used to support off-line communication. Moreover, it is reported that the AAC training has a positive effect on overall communicative functioning. In the near future, computer applications for interactive communicative training may become an important tool in aphasia rehabilitation. Theoretically, the internet offers excellent opportunities to improve social participation for people with aphasia, but reading and writing problems limit their access to the internet. So far, only a few initiatives have been reported to support and increase their access.

Woolf, C., et al. (2015). "A comparison of remote therapy, face to face therapy and an attention control intervention for people with aphasia: A quasi-randomised controlled feasibility study." Clin Rehabil.

OBJECTIVE: To test the feasibility of a randomised controlled trial comparing face to face and remotely delivered word finding therapy for people with aphasia. DESIGN: A quasi-randomised controlled feasibility study comparing remote therapy delivered from a University lab, remote therapy delivered from a clinical site, face to face therapy and an attention control condition. SETTING: A University lab and NHS outpatient service. PARTICIPANTS: Twenty-one people with aphasia following left hemisphere stroke. INTERVENTIONS: Eight sessions of word finding therapy, delivered either face to face or remotely, were compared to an attention control condition comprising eight sessions of remotely delivered supported conversation. The remote conditions used mainstream video conferencing technology. OUTCOME MEASURES: Feasibility was assessed by recruitment and attrition rates, participant observations and interviews, and treatment fidelity checking. Effects of therapy on word retrieval were assessed by tests of picture naming and naming in conversation. RESULTS: Twenty-one participants were recruited over 17 months, with one lost at baseline. Compliance and satisfaction with the intervention was good. Treatment fidelity was high for both remote and face to face delivery (1251/1421 therapist behaviours were compliant with the protocol). Participants who received therapy improved on picture naming significantly more than controls (mean numerical gains: 20.2 (remote from University); 41 (remote from clinical site); 30.8 (face to face); 5.8 (attention control); P <.001). There were no significant differences between groups in the assessment of conversation. CONCLUSIONS: Word finding therapy can be delivered via mainstream internet video conferencing. Therapy improved picture naming, but not naming in conversation.

Zheng, C., et al. (2016). "Effect of computer therapy in aphasia: a systematic review." Aphasiology **30**(2-3): 211-244.