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Research in the News

BAAL/CUP Seminar 2015

Eyetracking as a research method in online language education

The seminar took place at The Open University, Milton Keynes, United Kingdom, 12–13 June 2015.

The objectives of this seminar were to explore the use of eyetracking in advancing online language education, and to provide a platform for the exchange of ideas across disciplines (language, education, and computing). The overarching aim was to lay the foundations for a network to support future eyetracking research collaboration on the practical, methodological and theoretical level.

1. Background

Looking at the processes of language learning has been a long-standing goal for researchers in applied linguistics. One of the methods employed for more than 100 years (Just & Carpenter 1976) is eyetracking, the recording of gaze focus of a learner during a language task. Although original studies used reading as the easiest task to investigate (Rayner 1998), more recently, computer-mediated language learning has become a prominent area of study (Sagarra & Hanson 2011). Usability and accessibility of digital resources, including online language materials, are other converging fields where eyetracking has gained popularity (Jacob & Karn 2003; Poole & Ball 2006; Nielsen & Pernice 2010). Over the past decade eyetracking technology has become more cost-effective and user-friendly. This has led to a notable increase in eyetracking studies in different academic fields and with different methodological underpinnings as evidenced by the presentations delivered at this seminar.

2. Summary of the seminar

The seminar revolved around two excellent keynote presentations delivered by Breffni O'Rourke and Bryan Smith, both pioneering researchers in applying eyetracking to synchronous computer-mediated communication (SCMC) (O'Rourke 2012; Smith 2012). In his talk 'Eye-tracking as evidence of individual and discourse processes in online communication', O'Rourke (Trinity College Dublin) argued that eyetracking can yield insights not only into strategic and attentional behaviours in online SCMC, but also into

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discursive processes. He also addressed the possibilities and challenges for extending SCMC findings to face-to-face interaction.

Smith (Arizona State University) affirmed the necessity, in online second language acquisition (SLA) research, of adequately 'Tracking learner interaction in CMC'. His eyetracking research in synchronous textchat interaction generated unique evidence for the link between 'noticing' and SLA.

Six more empirical studies were presented, complementing the theme of the seminar. Emrah Çinkara (Gaziantep University, Turkey) talked not only about his eyetracking study of pronoun resolution but also about his experience of introducing eyetracking in his institution. Nicola Latimer and Stephen Bax, both from the University of Bedfordshire, a national hub for eyetracking research, presented two individual papers on researching academic writing and reading, respectively. Sharon Black (Queen's University, Belfast) continued with a pilot study of how children perceive television subtitles. Marije Michel (University of Lancaster) and Therese Örnberg Berglund (University of Linsköping, Sweden) both used eyetracking in SCMC research. The former focused on second language written computer chat interaction, and the latter investigated corrective feedback and language awareness in text-based SCMC.

3. Implications

Pushing forward the agenda of SLA research in applied linguistics, Smith argued that by revealing data which other methods cannot disclose, a systematic, structured and purposeful employment of eyetracking can provide evidence in the following four ways:

- supporting exploratory research
- confirming other measures (triangulation)
- testing assumptions in CMC
- testing notions from SLA in a computer-assisted language learning (CALL) environment.

To these four important points the seminar convenors, Ursula Stickler and Lijing Shi, contributed their own research findings, anchoring eyetracking research in socio-cultural theory and educational research. The reflective qualities of eyetracking and stimulated recall (Stickler & Shi 2015) proved that claiming or reclaiming an established research method for innovative use can provide benefits not only in the advancement of knowledge but also in bringing participants into the centre of research activity.

These suggestions and presentations triggered enthusiastic discussions among participating experts, confirming the new directions of eyetracking research – integrating it firmly into SLA and pedagogy (O'Rourke, Prendergast, Smith, Shi & Stickler 2015).

4. Feedback

Twenty-five participants from 17 different universities in five countries attended this seminar, an international and cross-disciplinary flair that was highly appreciated. Feedback to the

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seminar, received via post-event online questionnaire, individual emails and tweets, was overwhelmingly positive. The immediate consequences of the seminar include: establishment of an SCMC Eyetracking mailing list, a Twitter hashtag, and a website for disseminating seminar materials and documenting future research projects. Plans for a follow-up conference in 2016 and (inter)national collaborations are already underway.

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