

## Tracking student retention in open online language courses

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**Abstract.** Many scholars call for more diverse data on learners' behaviour in CALL (Colpaert, 2012; Fischer, 2007, 2012; Stockwell, 2012). Student retention and the inconclusive efficacy of online language courses (Gaebel, 2013) has received increased attention with the proliferation of MOOCs (Koller, Ng, Do & Chen, 2013). In this paper we introduce initial findings of tracking data over an eight year period on forty-three thousand learners' progression through the seven courses of *Icelandic Online*, an open, guided online course in Icelandic as a second/foreign language. Preliminary findings indicate low course completion rates, from 2.4% to 18.2%, that vary across courses and seem to cluster around certain junctures in the course content. Results show that retention varies according to mode of delivery (Harker & Koutsantoni, 2005), with the blended learning mode (self-directed learning on campus with a tutor) as most effective in retaining students, followed by the distance learning mode (self-directed learning outside campus with a tutor). Retention is lowest among self-directed students learning outside the context of formal education. These findings raise questions about factors that motivate retention in online courses, which appear to be not only the modes of delivery but also the course content.

**Keywords:** tracking data, student retention, different modes of delivery, Icelandic Online.

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## 1. Introduction

*Icelandic Online* (IOL) is a website that offers seven courses in Icelandic as a second/foreign language. The courses are open and free to users. Great effort was taken to design ‘plot-driven’ courses, that is, created around storylines related to everyday lives of university students, and based on ‘relevant’ SLA principles (Arnbjörnsdóttir, 2004; Chapelle, 1998). The first courses were launched in 2004 and approximately 140,000 visitors have logged on to the website. Of those, 43,000 have been active learners on one or more of the courses. The website is maintained by the University of Iceland and has had a great impact on access to Icelandic (Friðriksdóttir, 2015; Hafsteinsson et al, 2013).

Since 2006, we have been tracking students’ behaviour online. The purpose of the tracking is to establish who is using the website, to map out learner’s behaviour as they progress through the courses, and to determine the efficacy of the course materials, whether the pedagogic principles that guided the course development process have led to language acquisition. The study of retention in online courses and the inconclusive results regarding their efficacy (completion rates ranging from 2 to 10 percent) has received attention recently due to the proliferation of Massive Open Online Courses (MOOCs). Koller et al. (2013) have questioned whether retention is the right metric by which to measure success in online courses and argue that retention should be considered within the context of student intent.

The effectiveness of different modes of learning has also been a focal point with findings showing that the blended learning mode is more effective in terms of student retention than the distance learning mode (Harker & Koutsantoni, 2005). Fischer (2007) calls for diverse data on students’ actual behaviour while engaged in language learning online. Stockwell (2012) and Colpaert (2012) suggest that the Computer Assisted Language Learning (CALL) knowledge base may be too reliant on 1) researchers studying their own and their students’ use of technology and 2) surveys of what learners say they do online. There are fewer studies on what learners actually do while studying language through computers (including mobile devices). This is one such study. This article describes initial findings from an analysis of eight years of collected tracking data from forty-three thousand users of *Icelandic Online*.

## 2. Method

The main objective in this initial phase of the study was to retrieve demographic information about users, tabulate overall retention rates for all courses, and to

examine specifically the effect of different modes of delivery on retention. Available modes were: open courses (without any intervention), distance non-credit bearing courses with a tutor, and blended courses where Icelandic Online serves as part of face to face credit bearing courses.

The demographic information is provided by users as they log in to the website. The retention data is collected through a tracker that is built into the software where the position of a user is tracked in each course by ‘page’<sup>3</sup>. Each ‘page’ may include 3-6 learning objects. If a user takes multiple courses the system tracks user progression through all courses. All the data is stored in a database, and transferred to an SPSS statistics program for analysis.

### 3. Results

The registration data provide metrics on enrolment, gender ratio, age, educational background and geographic distribution for all visitors on *Icelandic Online* from 2006 to 2014 ( $N=139,941$ ). Of those, 31% are active learners ( $N=43,468$ ), that is to say, learners who went beyond eight activities in a course. In this study we focus exclusively on the active learners. The registration data reveal that 51% of *Icelandic Online*'s active learners are female and 49% are male, 69% of the learners are under the age of 31 years, 54% of the learners have received a university's degree, and 63% come from ten countries of origin<sup>4</sup>, leaving the rest scattered around the world.

The data reveal that the overall completion rates of the seven courses of Icelandic Online range from 2.4% to 18.2%. As part of an effort to break down retention data and better understand the nature and motivation of the high withdrawal rates, two *Icelandic Online* courses (IOL1 and IOL2) were examined. In the table below we compare the three different modes of delivery for completion of IOL1 and IOL2, showing from 2.9% to 8.3% completion rate in IOL1, and from 4.4% to 14.2% completion rate in IOL2.

In short, the study found significant differences in both courses between the three modalities in terms of student retention, with the blended learning mode proving to be much more effective in retention than the open learning and the distance learning mode. The results are presented in [Table 1](#).

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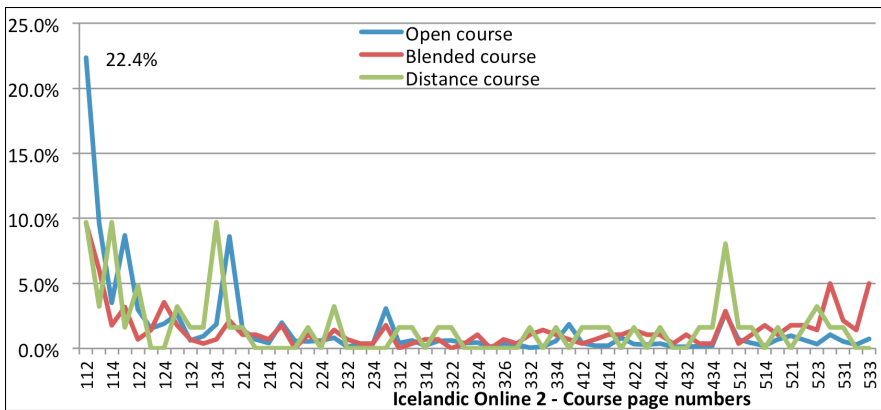
3. Page here is a reference to organisation of content and not to an actual page online.

4. The top ten countries are the US, Germany, Poland, the UK, France, Canada, Sweden, Norway, Spain, and Italy.

Table 1. Course completion in three different modes of delivery in *Icelandic Online 1* and 2

Mode of Delivery	Icelandic Online 1			Icelandic Online 2		
	Open	Distance	Blended	Open	Distance	Blended
Completion %	2.9%	4%	8.3%	4.4%	4.8%	14.2%
N/total	189/6419	4/101	36/434	152/3462	3/62	40/281

Additionally, the tracking data revealed regular attrition patterns across all modes of delivery in both courses. Figure 1 shows the concentrations of drop-outs at certain junctures in the course (IOL2). The concentration of drop-outs at these particular junctures may have several explanations that will be discussed in the next section.

Figure 1. Attrition pattern in three different modes of delivery in *Icelandic Online 2*

#### 4. Discussion

The results of the tracking data presented above resonate with findings on student retention in MOOCs where overall completion rates are low (Gaebel, 2013), and attrition rates are highest at the very beginning of courses (Reich, 2014). Our data clearly demonstrates that blended learning is most effective in keeping students in courses. As shown in Figure 1, in one of the courses examined specifically in this study (IOL2) all three modes have large drop-out rates at the beginning of the course, on the first three ‘pages’ (112-114). Bundles of drop-outs are not as consistent as students advance in the course. Furthermore, Figure 1 presents

an interesting perspective in that although the drop-out rates appear in bundles at certain junctures, there are also many sections where learners do not leave. This applies across modes of delivery. At this point we do not know whether these bundles of drop-outs (or retentions) are related to course content, types of learning objects/technology, learning objectives, student intent, or other personal reasons.

## 5. Conclusions

This study raised more questions than it answered. We are in the beginning stages of a mixed method research project. The aim is to gather as much data as possible on whether the pedagogical goals and objectives that guided the development of *Icelandic Online* have led to language acquisition. In the next phase of this research, the factors influencing learners' decisions to withdraw or persist in a course will be explored further. The difference between the blended learning mode and the other two modalities in terms of retention as well as the reasons for the bundles of drop-out and persistence will be investigated further. This will be the focus of the next phase of this study where evidence from students' self-reports in the form of surveys and interviews will be explored.

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