Enhancing student retention rates on open non-formal online language learning courses

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Open non-formal online courses are becoming increasingly popular as a self-paced option for learners. However, the attrition rates for such courses, similar to other online options such as MOOCs, can be high. In this exploratory research study two teacher-researchers reflect on and analyse their experience of creating open non-formal online courses for English language learners, and go on to suggest several practical techniques to decrease the number of students that may drop out. Firstly, the wider reasons why online students may drop out, such as insufficient feedback or the impact of cognitive overload, are discussed and several ways are suggested to get around these issues. Secondly, various principles of instructional design such as keeping lessons consistent but variable, relevant, and divided into manageable chunks are recommended. Finally, a number of ways that videos can be made more engaging are shown, especially focusing on how a *talking head* can be best portrayed in order to give the clearest information and develop a more personalised teacher presence. Although the data and analysis are focused on open non-formal online courses the findings and discussion are of relevance to other forms of online instruction and multimedia learning.

Keywords: online learning; course design; student retention; EFL

Introduction

Rha (2018) divides online learning into four types: 1) lifelong career development courses; 2) credit accreditation courses; 3) degree courses; and, 4) open non-formal courses. The first three types are institutionally based formal courses and the fourth are informal with no connection to a specific institution. There is evidence that retention rates for formal online courses are very low (Sánchez-Elvira Paniagua & Simpson, 2018) with, for example, the UK's Open University recent graduation rate falling to only 13% (Inkelaar & Simpson, 2015, p. 153). Research that has been carried out on formal institutional courses and MOOCs (Zawacki-Richter, Bozkurt, Alturki & Aldraiweesh, 2018) shows there are a number of reasons why students might drop out from online courses. Students might feel isolated from others (Palloff & Pratt, 2005), intimidated by technology (Bawa, 2016), sense that there is a lack of support (Simpson, 2017) or feedback from institutions or teachers (Abel, 2005), they may be cognitively overloaded (Sweller, Ayres & Kalyuga, 2011) by the online context, or feel that the they are studying in an "ill-structured domain" (Driscoll, 2005) in which it is not easy for them to know how to learn.

There is much less published evidence about retention rates or reasons for student dropout from the fourth category of Rha's (2018) classification: open non-formal courses. These courses are often hosted by commercial platforms (such as *Udemy*, *Teachable* or *Skillshare*) where teachers and course creators develop and market courses to students across the globe. The numbers of students enrolled on these kinds of courses is hard to estimate but figures from the providers do indicate the numbers are not insignificant. Udemy (https://www.udemy.com) states, for example, that as of October 2019 it has over 30 million students. Such courses can be purchased for a fee or are provided free. Unlike formal courses, the course creators and students rarely, if ever, interact. There is no set timetable as courses are self-paced and, importantly from the viewpoint of instructional design, there are limited opportunities for course creators to provide feedback to students. Similarly, feedback from students to course creators is limited to (often anonymous) reviews and data from learning analytics concerning participant numbers and completion rates. However, although this data is limited it can show how many students start a course, what percentage of a

course they can complete and how many finish. That is, such data can show the course creators what their retention rates are.

The two authors have created and are creating open non-formal online courses using the Udemy platform. This experience is used in this paper to investigate the issue of student retention rates on such courses. The theoretical framework for this paper is that of *exploratory practice* (Allwright, 2003). This is an approach to teacher development in which teachers collect information on their courses and then try to use that data to reflect on their practice and improve conditions for learning. It is rooted in action research (Burns, 2010) and reflection-on-action (Schön, 1983) approaches to development in which naturally occurring data is collected as an integral part of teaching or work life. The procedure that we follow is to: 1) jointly examine the data supplied by Udemy about our online courses; 2) review the literature on online instructional design and retention; and, 3) brainstorm possible improvements to the courses. Through this process we will suggest tentative answers to two exploratory research questions:

1. What practices could encourage student retention on open non-formal online courses?
2. How can our future open non-formal online courses be better designed to engage student motivation?

We cannot yet claim that our potentially improved practices and design will positively influence student retention rates; but this is a first stage in finding out how we, as course creators, can best try to retain students on open non-formal courses.

The study

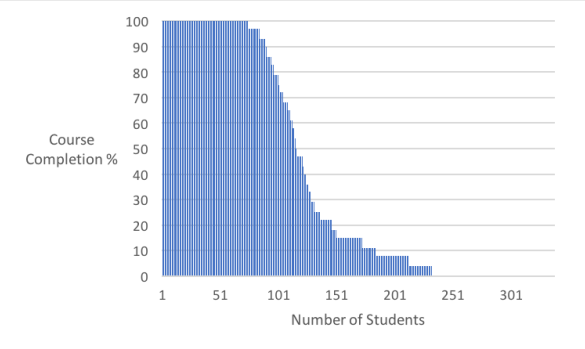
The two authors are both English as a Foreign Language (EFL) teacher-researchers in Japanese universities. Within our different institutions we have had various opportunities to research the use of digital technology to enhance language learning (Cowie & Sakui, 2013, 2015) and to incorporate technology into our language lessons, particularly through the creation of multimodal projects (Cowie & Sakui, 2018). In order to build upon this research and classroom experience we wanted to go one step further and create wholly online materials. The main reason for this was that we wanted to evolve from "consumers" to "creators" of digital resources and find out what are the challenges and issues involved in creating online materials. We have developed three open non-formal online courses that consist of videos, quizzes and downloadable materials that are hosted on the Udemy platform. This platform was chosen as it provides an easy-to-use dashboard, advice for material creation, and a user-friendly quality control system where Udemy provides quick feedback on how to improve draft videos.

The three courses that we have made so far are: "English grammar (articles)", "Small talk in English", and "Successful meetings in English". Two further courses that are being made are "Presentations in English" and "Academic writing in English". These topics were chosen as we felt that they cover important skills and knowledge for EFL students to master but they do not easily fit into traditional EFL courses or textbooks. In creating these online courses, we felt that we could provide an additional set of learning materials for the EFL field that were not covered already. The three published courses are composed of 15 lessons, each of which includes a video of up to six minutes in length. The videos are a mixture of talking heads, animation, and slideshows with audio. They were created with an SLR video camera, a smartphone camera, Keynote slideshow software, iMovie editing software and animation software. At the time of writing the courses have attracted over 500 students from 35 different countries. This sounds positive but we began to notice that many of the students did not complete the courses. We started to wonder why this was the case and wanted to find ways to retain student interest, especially for students that we do not see face-to-face and have little chance of interacting with online. This is the context for this study in which we will reflexively examine ways to retain students on open non-formal online courses.

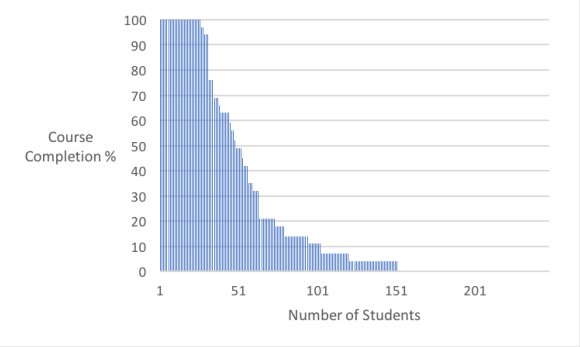
Firstly, in order to provide some background information, we would like to report on the respective completion rates for the three courses we have created. Udemy provides various kinds of data on student retention. There are lists of student names, which are often pseudonyms, the date that the students enrol, and the percentage of the course that they have completed. From this data, it is possible to produce graphs that show overall participant numbers and percentage of course completions. The three graphs below

show the number of students that have enrolled on a course on the horizontal access and the percentage of the course that these students have completed on the vertical axis. For example, in Graph 1, 301 students registered for the course on 'Articles' and 75 of these students completed 100% of the course.

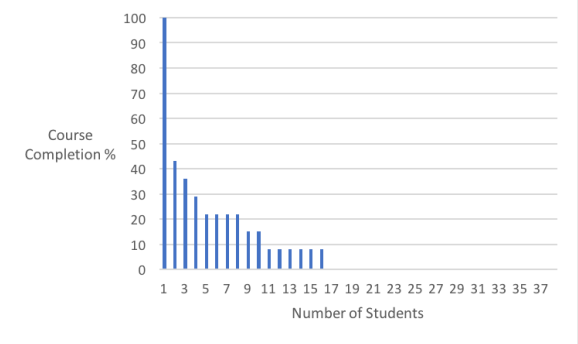
Graph 1: Articles course completion rates



Graph 2: Small Talk course completion rates



Graph 3: Meetings course completion rates



Although limited in scope, the data in Graphs 1, 2 and 3 show a general tendency that some portion of students complete or nearly finish a course whereas more than two thirds of students drop out or do not even engage in studying at all. Of course, the completion rate is slightly different from course to course. In our case, about one third of students have completed the Articles course, which is the highest of the three, whereas the lowest is in the Meetings course with a completion rate of only one of the 37 students. These data, unfortunately, echo the claim that high attrition rates are a serious problem in online learning.

In the next three sections, we will critically examine the potential of our online courses to retain students or not. Firstly, we assess to what extent our courses overcome some of the general barriers that students

face when studying online; secondly, we reflect on the basic instructional design of our courses; and, thirdly we examine how engaging our videos are.

Reasons for student dropout

In the introduction to this paper, a number of reasons why students drop out from online courses were briefly mentioned. The data underpinning these reasons has mainly been drawn from institutional courses and MOOCs (Zawacki-Richter, Bozkurt, Alturki & Aldraiweesh, 2018) which differ from open non-formal online courses in that there is institutional involvement and such courses often lead towards formal qualifications. Both those factors can impact (positively) on student retention rates. However, whilst acknowledging these differences, we believe that such research insights can provide useful tips to help modify open non-formal courses in order to try to retain as many students as possible. Table 1 lists the six research-based reasons why students may drop out of online courses. We will look at each in turn and examine to what extent our courses can address those barriers or not.

Table 1. Six reasons for student dropout

1) Isolated	*2) Intimidated*	*3) Lack of support*	*4)Lack of feedback*	*5) Cognitive overload*	*6) Ill-structured domain*

Two major reasons why students drop out is that studying online can be isolating (Palloff & Pratt, 2005) and intimidating (Bawa, 2016), particularly for students that are new to online courses. Students need to be much more autonomous and self-motivated to persist with online learning than in face-to-face classes. There are several ways in which we can try to help students overcome this sense of isolation and intimidation. Firstly, it is important to explain to students how to learn online and pre-empt some of the difficulties they may face. This is particularly important when they initially sign up for a course. It was not possible prior to May 2019 to have direct communication with new students but now Udemy has added a new feature which allows instructors to contact students who have signed up for courses. We will try to take advantage of this but at the time of writing we do not have enough data to see whether this is effective yet.

Secondly, it is possible to make students feel less intimidated by making the design of a course and individual lesson as user-friendly as possible. This is additionally important as our courses are for English language learners who need the clearest possible instructions and examples. This means ensuring that the course creator's language choices provide *comprehensible input* (Krashen, 1985) for the students. If instructions and explanations are not comprehensible this can cause confusion and frustration (Chyung & Vachon, 2005) so instructions need to use high frequency words and phrases and avoid idiomatic or metaphorical language which is difficult to translate. It may also be a mistake to assume that even students who have the technological literacy to enrol on an open non-formal course are familiar with using technology for educational purposes (Ng, 2012). One response to this is to include an induction video on how to use the course and make the best use of the online resources. This is again an area that we will try to improve in the next iteration of our courses.

Two further areas that research has shown are important in retaining students are appropriate *support* (Simpson, 2017) and *feedback* on learning (Abel, 2005). There are two kinds of support that a course creator can provide: *proactive* or *reactive* (Simpson, 2004). Without an institutional base, it is almost impossible to initiate any kind of help service to students; that is, it is very hard to be proactive. It is possible, however, to be reactive if students initiate communication and make an inquiry to their online instructors. Students have done this on our courses and these have been rare but golden opportunities to interact with students. However, such inquiries have almost all been concerned with finding out more details and information about course content. These inquiries come from students who are clearly engaged with a course and, although they are welcome, they do not come from students who need more support and are about to drop out. Instead, it is possible to provide feedback on learning, especially through the quiz function which can be a way to review learning goals (Lehman & Conceição, 2014) and allow students to self-monitor. There is little opportunity to provide more direct feedback on learning so, like support, this is an area of weakness for open non-formal online courses unless students themselves initiate the search for feedback.

Finally, two related factors which can lead to student dropout are *ill-structured domains* (Driscoll, 2005) and *cognitive overload* (Sweller, Ayres & Kalyuga, 2011). Bawa (2016) explains that when students expect similar information on an online course which they are used to having in the *well-structured domains* of face-to-face courses they may think that an online environment is ill-structured. What this means is that learners can be put off by the large amount of different information that they need to process on an online course before they have even started on their learning journey. This leads to cognitive overload and a strain on working memory. The implications for the course designer are that courses need to have a clear schema that "guid[es] the selection of relevant information and the screening out of irrelevant information" (Kirschner, Sweller & Clark, 2006, p. 83) and are as logical and self-explanatory as possible. As course designers, we need to follow principles of good design to minimise cognitive overload and help to engage students. Therefore, we will now examine how well structured our courses are in terms of instructional design.

Principles of instructional design

Lehman and Conceição (2014) identify a number of research-based principles of instructional design that, in theory, will encourage students to keep studying online materials (Table 2). We would now like to look at each of these in turn in order to evaluate how well our online courses can potentially retain students.

Table 2. Principles of good instructional design

1) Consistent	*2) Varied*	*3) Relevant*	*4) Manageable chunks*
✓	✓	✓	✓

The first two principles are for courses to be *consistent* but *varied*. We interpret being consistent as creating a course with an easy-to-follow format which is the same in each lesson and where students can expect a regular routine and get used to the teaching procedures. In our reflections on our courses we concluded that we tried to do this by making the beginning and end of each lesson similar with a welcome section and a summary section, and trying to create a consistent length and style for each video. Secondly, we added variety to this consistent overall style by using different teaching approaches such as demonstrations, giving examples, creating role plays and so on. In addition, we varied the video techniques by using animation, green screen effects and music. In these ways, we can claim that our courses are, to some extent, both consistent and varied.

The third principle of good instructional design is to try to connect courses to a student's profession or future work or real-life tasks and issues; that is, try to make courses immediately *relevant*. This can be achieved at two levels. The first level is, as mentioned above, to make courses that are practical but are not necessarily covered in a traditional syllabus: for example, *small talk* is a vital part of relationship building but little attention is paid to that in EFL textbooks. *Meetings* are a part of many people's daily lives but few people have probably been on a course to improve their ability to perform in a meeting in their second language. By choosing such topics, we believe that our courses are relevant to students and retention will be higher as a result. One reason to have some confidence in this assertion is that most students voluntarily take the courses – they have no connection to us and have opted for the course with a belief that it will match their perceived needs. The second level is to integrate relevant tasks and issues into each lesson. This can be done by making examples as contextualised as possible and using realistic scenarios for content. For example, in the small talk course there are several videos of unscripted authentic dialogues that serve as models for specific features of small talk discourse.

The final principle identified by Lehman and Conceição is to divide lessons into *manageable chunks* so that students are not overwhelmed by long and difficult-to-follow videos. We have tried carefully to break each teaching point down into small sequences that have a limited video length. Each lesson lasts an average of six minutes within which there are up to ten slides. No individual slide is longer than a minute. In addition to these features, we also think it is very important to have a clear set of target goals that the online students can aim for. We have tried to explicitly lay out a series of small steps and achievable goals

from the beginning of the courses that gradually build up to achieving the overall target goal (see Williams and Burden, 1997, for a theoretical justification for the link between goals and language learner motivation). By doing this we can make clear what the manageable chunks are, and that as a result, there is a higher chance that students can retain their motivation to learn and will not drop out.

All the above sounds very positive but of course many students still do drop out of our courses. It is almost impossible to find out from students why they drop out as we do not have direct contact with them but we can look at their exit reviews for clues as to how to improve future courses. Students can leave a review of a course even if they have not completed it. This review consists of giving an overall comment and a rating for each of six course attributes. Let us first look at the comments and then the course attributes.

Relatively few students do leave comments but the ones that do often make suggestions as to how to improve the courses. For example, nine of the 35 students that left reviews about the Articles course also left some kind of comment. Most comments were complementary ("very surprised with these rules and really good course", "I got better understanding on how to use articles") but there were others that indicated areas where we can improve. One learner left the following criticism of the audio signal we had used to transition from one section of a lecture to another: "The loud clicking sound at the beginning and the end of the lectures … really freaks me out". This comment helped to identify a feature of the course that we needed to improve.

Moving on to course attributes, there are six as follows:

a) Valuable information
b) Clear explanations
c) Engaging delivery
d) Helpful practice activities
e) Accurate course description
f) Knowledgeable instructor

The Udemy website (https://www.udemy.com) describes three ways in which students can rate these attributes:

> If a green plus sign appears beside the feedback, then this indicates that the student believes the course includes that attribute. If a red negative sign appears, however, then the student indicated the course did not include it. If a question mark appears, then the student did not select yes or no.

Udemy collates these ratings into an overall "Course Rating". Course ratings range from zero to five, with five being very good. At the time of writing the overall Course Rating scores for the three courses were: Articles (4.26); Small Talk (4.19); and, Meetings (4.75). These scores do not have any statistical significance but are one kind of guide to how satisfied learners are. We feel that our Course Ratings are quite good but they do not provide detailed information as to how we can improve.

The six individual attributes are given an overall percentage score by Udemy and this is a more informative statistic. Generally, we have found that students are quite satisfied. For example, the ratings for the Small Talk course for "Useful information" and "Accurate course description" are 91% and 92% respectively. But one area that is lower concerns the "Engaging instructor" attribute. The response for this is only 76%. In the next section, therefore, we will examine what can be done to create more engaging instructor videos.

Features of engaging videos

In the previous two sections, we have looked at general barriers to student retention and principles of instructional design that could help to retain students on online courses. We will now turn our focus to the more specific area of making videos as engaging as possible. Clark (2014) has collated a number of research-based principles of how to do this (Table 3). As with instructional design principles we will again compare our videos with these recommended techniques.

Table 3. Ways that our videos are engaging

Less than 6 minutes	*High audio quality*	*Numerous examples*	*Additional materials*
✓	✓	✓	✓

The four ways in which our course videos probably do engage students effectively are as follows: 1) they are all less than six minutes long and so are within Clark's (2014) recommended time limit; 2) the audio quality is high (Udemy rejects videos which do not have high quality audio). This is particularly important as research has shown (Mayer, 2009) that viewers are more concerned with clear sound than picture quality; 3) there are numerous examples embedded in the videos rather than a focus on theoretical concepts; and, 4) there are additional resources available to back up the video content (PDFs with extra information and support, and quizzes).

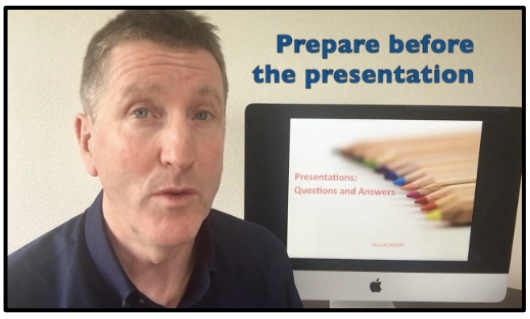
Table 4. Ways that our videos are not engaging

Full size talking head	*Talking head and text*	*Informal style in first person*	*Alternate images*
X	X	X	X

In contrast to these positive points, there are several ways in which our videos do not always meet Clark's recommended design principles (Table 4). These are all connected with how a *talking head* in the video should be presented: that is, 1) they should be shown full size as much as possible (especially important for smartphone viewing); 2) the talking head should not be mixed with too much text; 3) the speaker's talk should be informal and in the first person; and, 4) the talking head should alternate with other images.

We would briefly like to comment on points 2) and 3). Firstly, concerning the principle that a talking head should not be mixed with too much text, Mayer (2009, 2017) has put forward a number of well-known ideas based on experiments in cognitive science of how to present multimedia that will best promote learning. These are not exactly the same as principles to engage students but they are important to take into account when designing effective multimedia. One such approach is to decrease the amount of *extraneous processing* (Mayer, 2017, p. 406) that an online learner needs to go through in order to best understand what is being presented. Extraneous processing consists of extra cognitive demands made on students that do not meet the instructional goal. Mayer suggests a number of ways to decrease extraneous processing and the one that is most salient to our case is to highlight essential details through specific signalling. In this case, our headshots need to be made larger and the number of on-screen titles that include keywords or phrases need to be limited. These keywords can be used to signal to students which information is most important for them to process (see Figure 1).

Figure 1. Comparison of headshots



In the screenshot on the left in Figure 1, the headshot is relatively small and there are five separate textual messages. In contrast, in the one on the right, the headshot is larger and there is only one main textual message which is signalling the speaker's key point at that moment in the video. The video on the right is, theoretically (Mayer, 2017), more effective as it decreases extraneous processing. We will use this style in our next course.

Secondly, Clark's point 3) that the speaker's talking style should be informal and in the first person corresponds with Mayer's principle that a personalised embodied teaching presence (Garrison, 2011) will best *foster generative understanding* (Mayer, 2017, p. 413). That is, a deeper learning experience can be encouraged by creating a kind of social connection with the learners and that we should adopt a more engaging approach that is akin to talking as a friend rather than adopting a somewhat stiff and formal academic manner. One simple example of how to achieve that is to address the learners personally with "you" and "your". For example, to say "When *you* give a presentation *you* need to pay attention to the speed of *your* voice", rather than "When giving a presentation attention needs to be paid to voice speed". Again, we will adopt this way of speaking in our next course.

Summary of findings

In this section, we would like to return to our two initial exploratory research questions in order to summarise our findings from the reflective analysis of our three open non-formal online courses.

1. *What practices could encourage student retention on open non-formal online courses?*

There are a number of principles of good instructional design that our non-formal open online courses follow. They are consistent but varied, they are relevant and are broken down into manageable chunks with clear goals for each section of the course. The videos are less than six minutes in length, have high quality audio, many examples and a number of additional resources. However, we have found that our videos can be made more engaging by increasing the size of the talking headshot, adding on-screen text that signals key phrases to the learner, and by making our teaching presence less formal and more personalised.

2. *How can our future open non-formal online courses be better designed to engage student motivation?*

Again, we have found that there are a number of ways in which our courses are designed that will motivate students but there are also specific areas to improve. Firstly, in order to decrease the sense of isolation and intimidation some students may feel, we can improve our initial communication when they sign up and include an induction video about how to best learn on open non-formal courses. We need to find further ways to give as much feedback as possible. In a limited technical environment, this could be done by adding more quizzes which can act as feedback and a way for students to self-monitor their progress. We also need to ensure that the online environment is as well-structured as possible so that students do not experience cognitive overload. As part of this process it is vital to project a schema for learning with numerous incremental goals embedded in each lesson that lead logically to the overall target goal for the course.

Finally, in addition to the above suggestions there are a number of other techniques that can be used to entice learners to keep watching and to want to move on to the next lesson. These include using principles of gamification (Ntokos, 2019; Schell, 2008) such as badging and levelling up; by giving more praise and rewards, such as completion certificates (Lehman & Conceição, 2014); by creating a storyline or narrative that links each lesson and teaching concept together in an engaging plot (Vogler, 1998); and, by carefully embedding the use of humour in lessons. We are looking forward to trying out these additional techniques in future courses.

Conclusion

This paper describes the huge challenges in retaining student engagement to complete open non-formal online courses. The data and feedback we have received from our students are informative in showing

that the attrition rate is indeed high and the number of students that drop out shows a clear tendency to increase steadily as they move through the course. This type of data is instructional for us as course creators in that we need to remind ourselves that the attrition rate is high and to keep tackling this problem as we make future courses. However, the nature of such data does not exactly address the important question as to why students do complete a course, or the even more important question as to why they drop out when they do. The two authors, therefore, had to build hypotheses by relying on our knowledge, experience and hunches together with the existing literature on motivation and online learning when we attempted to understand the problem. In sum, we have reflexively analysed three courses on the Udemy platform to estimate how well-designed our courses are in terms of maximising student motivation. It was found that they do follow many principles of good instructional design but the videos could be more engaging and there need to be more incremental goals embedded within each lesson. We would like to emphasise that we have found some ways to carry our course design forward but we have not collected data on these changes yet. This will be the next phase of our action research and exploratory practice.

We would like to observe that in the advent of digital technology becoming ubiquitous, teaching and learning is changing rapidly and online materials designers need to respond accordingly and experiment with many approaches that are more akin to a movie production or conducting a symphony (Gibby, Quiros, Demps & Liu, 2002). There are two pieces of good news for teachers that go alongside this trend: 1) the kind of digital technology that can facilitate such production is now readily available and teachers that were formerly consumers can become creators of quality online materials; and, 2) learners may not be looking for perfection in their online course materials but want a teaching presence that is warm and relatable rather than word perfect.

Finally, this paper focuses on limited aspects of online course creation and student retention; however, we hope that the evidence and claims that we have made are of relevance to other course creators, instructional designers or teachers who are interested in enhancing learner motivation and encouraging students to take advantage of this flexible type of technology-enhanced learning.

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