

Evaluating the Impact of an Online English Language Tool's Ability to Improve Users'
Speaking Proficiency under Learner- and Shared-control Conditions

by

Shane Dixon

A Dissertation Presented in Partial Fulfillment
of the Requirements for the Degree
Doctor of Philosophy

Approved April 2015 by the
Graduate Supervisory Committee:

Robert Atkinson, Chair
Wilhelmina Savenye
Brian Nelson

ARIZONA STATE UNIVERSITY

May 2015

ABSTRACT

This study aims to uncover whether English Central, an online English as a Second Language tool, improves speaking proficiency for undergraduate students with developing English skills. Eighty-three advanced English language learners from the American English and Culture Program at Arizona State University were randomly assigned to one of three conditions: the use of English Central with a learner-control, shared-control, and a no-treatment condition. The two treatment groups were assigned approximately 14.7 hours of online instruction. The relative impact of each of the three conditions was assessed using two measures. First, the Pearson Versant Test (www.versanttest.com), a well-established English-as-a-second-language speaking test, was administered to all of the participants as a pre- and post-test measure. Second, students were given a post-treatment questionnaire that measured their motivation in using online instruction in general, and English Central specifically. Since a significant teacher effect was found, teachers involved in this study were also interviewed in order to ascertain their attitude toward English Central as a homework tool.

Learner outcomes were significantly different between the shared and learner conditions. Student motivation was predictive of learning outcomes. Subjects in the shared condition outperformed those in the learner condition. Furthermore, those in the shared condition scored higher than the control condition; however, this result did not reach statistical significance. Results of the follow-up teacher survey revealed that while a teacher's view of the tool (positive or negative), was not a predictor of student success, teacher presentation of the tool may lead to a significant impact on student learning outcomes.

ACKNOWLEDGEMENTS

I want to thank Dr. Robert Atkinson for believing in this project, and for Mark Rentz, Mary Chang, and Lois Malone for helping to sustain it. I also want to thank my wife for putting up with me for every time this study demanded that I hold her a conversational hostage

TABLE OF CONTENTS

	Page
ABSTRACT.....	i
LIST OF TABLES.....	v
LIST OF FIGURES.....	vi
CHAPTER 1--INTRODUCTION AND LITERATURE REVIEW.....	1
Statement of the Problem.....	2
Purpose of the Study.....	6
Review of Literature.....	6
Language Acquisition: Speaking.....	7
Student Motivation.....	10
Learner Control.....	12
Shared Control.....	18
Research Questions.....	20
CHAPTER 2—METHODOLOGY.....	21
Participants and Design.....	21
Design of Learner Control.....	22
Design of Shared Control.....	24
Design Similarities in Both Conditions.....	26
English Central Online Learning Tool.....	28
Control Group.....	35
Materials.....	36
Measures.....	36
Procedure.....	40
Scoring.....	44
CHAPTER 3—RESULTS.....	46
Assumptions.....	46
Primary Analysis.....	47

Supplemental Analysis	49
CHAPTER 4: DISCUSSION AND IMPLICATIONS.....	53
Shared-Control Superior to Learner-Control	53
Supplemental Findings	58
Finding 2: The Tech Awareness Effect	58
Finding 3: The Teacher Effect	59
Limitations	60
Conclusions	61
Future Directions.....	62
REFERENCES	64
APPENDIX.....	69
ENGLISH CENTRAL VIDEOS IN SHARED CONTROL MODEL	69
ENGLISH CENTRAL SURVEY FOR LEARNER AND SHARED CONTROL PARTICIPANTS AND ENGLISH CENTRAL SURVEY FOR TEACHERS	74
PEARSON VERSANT TEST SAMPLE ITEMS.....	79
ENGLISH CENTRAL ASSIGNMENT INSTRUCTIONS FOR BOTH SHARED AND LEARNER CONTROL CONDITIONS	82
SPRING 2014 TECH SURVEY AT THE AMERICAN ENGLISH AND CULTURE PROGRAM.....	87
CONSENT FORM FOR SHARED AND LEARNER CONTROL CONDITIONS	89
PEARSON VERSANT TEST INSTRUCTIONS (PHONE FORMAT)	93

LIST OF TABLES

	Page
Table 2.1: Learner Control Elements in Each Format of the Present Study.....	27
Table 2.2 Usability Questions.....	37
Table 2.3 Motivation Questions.....	38
Table 2.4 Technology in General Questions.....	38
Table 2.5: Schedule of Events	41
Table 3.1: A Priori Orthogonal Contrasts	48
Table 3.2 Mean Amount of Improved Speaking Fluency for Learner, Shared, and Control Conditions.....	48
Table 3.5 One-Way Analysis of Variance Summary Table for the Effects of Gender on Speaking Scores	51
Table 3.6 One-Way Analysis of Variance Summary Table for the Effects of Language on Speaking Scores	51
Table 3.7 Teacher Motivation and Student Speaking Scores by Learner and Shared Condition.....	52

LIST OF FIGURES

	Page
Figure 1.1: Kay’s Learner Control Model	15
Figure 2.1: Video Player	27
Figure 2.2: Watch Feature (in both treatment conditions)	29
Figure 2.3: Learn Feature (in both treatment conditions)	30
Figure 2.4: “My Words” Vocabulary Learning Feature	30
Figure 2.5: “My Words” Vocabulary Learning Feature	31
Figure 2.6: Speak Feature	31
Figure 2.7: Pronunciation Toolbar	32
Figure 2.8: Pronunciation Learning Feature	33
Figure 2.9: Shared-Control Design: The Advanced 1 Listening and Speaking Channel .	34
Figure 2.10: Shared-Control Design: The Advanced 1 Listening and Speaking Channel	34
Figure 2.11: Shared-Control Design: The Advanced 1 Listening and Speaking Channel	35
Figure 3.1: Histograms of learner, system, and control groups	46

CHAPTER 1--INTRODUCTION AND LITERATURE REVIEW

In pursuit of the second language education market, a market which until now has generally found its home in traditional brick and mortar classrooms, very few online products have been as well-received as English Central, which recently reached over one hundred million lines of spoken text (“English Central,” 2013). The popularity of this online tool can probably be traced to several features, including the familiarity of the user interface. This interface shares features with video-sharing websites Youtube and Vimeo in that it shows thousands of real life videos, all searchable by popularity and topic. Furthermore, part of its acceptance, especially in the marketplace, may be traced to the flexibility with which it presents its product. Individual learners can purchase a subscription fee and, by selecting from a wide variety of options, take control of their own learning. Teachers and administrators, on the other hand, can create virtual classrooms students can join. Within these classrooms, teachers can monitor the videos watched, the number of lines spoken, and can listen in on any line of text the students have spoken. Finally, due to advanced speech recognition software, English Central identifies language sounds by making accommodations for a user’s gender, language of origin, and probable phonemic patterns, and then provides feedback that allows students to work on individual phonemes.

With all this said, there are a number of questions surrounding the English Central environment. First, while internal data from English Central suggests discrete sounds may improve over time, it is unknown whether or not the environment improves overall speaking fluency (personal communication, June 4, 2014). Thus, a study that measures overall speaking proficiency would help to evaluate whether or not English Central has a larger, more holistic effect.

A second educational concern does not ask if English Central is effective, but rather how English Central might be most effective. This particular question surfaces when attention is paid to the open interface (wherein a student is in charge of their own video selection), or a more closed design (referred to as a “channel”) wherein teachers and/or administrators choose videos for learners. While a teacher can monitor students in either design, it is unknown whether or not the selection of videos should be put into the hands of teachers or students. In this light, a study that measures the relative impact of each of these settings seems relevant and valuable.

A final concern in designing this study comes from the need to measure student attitude toward the English Central environment. While in certain environments online learning engagement has been shown to exceed that of face-to-face classroom instruction (Robinson & Hullinger, 2008), online learning designs can be susceptible to variations in student enjoyment based on demographic information such as gender and first language. This study will also seek to uncover any variations accounted for by a number of such student factors.

Statement of the Problem

Online learning continues to grow in nearly all academic disciplines. A survey by Allen and Seaman demonstrate this point by showing that multiple disciplines, from computer and information science to history and liberal arts, are moving toward online learning and showing equal amounts of market penetration (2008). This trend is likely the case because online learning is perceived to have unique advantages. For example, online learning supporters tout the ability to have asynchronous instruction, meaning that a teacher need not always be present for learning to occur, and that a student may enter a discussion thread, an online lesson, or watch a video at any time (Parsad, Lewis, & Tice, 2008). Secondly, online education often boasts the ability to do assessment, thus relieving teachers from the burden of doing an unnecessary amount of

correction (Collis, De-Boer & Slotman, 2001). Online learning is also seen as possibly more motivating, since students are allowed to navigate and explore online spaces in ways that may encourage autonomy and self-directed learning (Cordova & Lepper, 1996). Finally, there is an economic factor that suggests that online learning may represent a method of increasing profitability by reducing the number of teachers and classrooms, thus expanding the number of students in a single classroom. Certainly, the recent proliferation of MOOC's (massive open online courses) demonstrates this point.

While interest in online education has never been stronger, much of what passes as online learning has gone untested, especially when trying to make a case of its utility in comparison with traditional classrooms. This makes the claims of online advocates somewhat difficult to assess. Opponents of online education cite this lack of rigorous testing as a result of the novelty of these new tools, and that many of the claims made by online advocates consist more of commercial sound bites than academically sound research (Anderson, 2008).

This lack of testing but obvious expansion is apparent in the ESL online learning market. English-as-a-second-language professionals are incorporating technology in the classroom, and the use of internet websites and online learning tools has never been greater. For example, in a survey of tools used among the 100 faculty members at Arizona State University's American English and Culture Program, over 140 online learning tools are currently being used (see Appendix E for a full list). Since online tools are not mandated by administration (with few exceptions), this suggests that educators are, of their own accord, anxious to use, experiment with, and improve their classrooms with the use of online learning tools.

One particular way in which teachers are attempting to use online tools is by assigning homework that has been previously created in an online format. Online quizzes, readings,

videos, and other assignments give teachers a chance to search for lesson activities that pair with the themes or goals of the classroom. Websites specific to ESL lesson planning such as Randall's Cyber Listening Lab, Voice of America, Breaking News English, Busy Teacher, ESL Galaxy, and Dave's ESL Café offer lesson plan tips, ideas, worksheets, or other online helps.

Other websites give teachers the facility to engage students in real world English not specifically tied to ESL or ESL objectives. Teachers often send students links to particular articles or activities from these websites. These might include but are not limited to the California Distance Learning Project, NPR, Ted Talks, CNN Video, Ohio U Reads, and Time Magazine.

Additionally, teachers often create their own materials using online tools that provide templates for quizzes, flashcards, reading activities, and so forth. Quizlet, Zap Reader, and Rubistar are examples of these kinds of online tools.

At this point, however, we must concede that while some teachers are actively engaged in using these online tools, and some in very creative ways, there are a number of teachers that use very little technology. Some teachers and students experience a certain amount of technophobia, which has led the administration at the American English and Culture Program to make the decision to not require the use of specific online tools, with one exception. Since Blackboard is the official learning management system (LMS) at Arizona State University, it is required of all AECP teachers as the proper form to communicate syllabi, grades, and other assignments. Blackboard includes a suite of tools such as discussion boards, voice boards, the attachment of Word, Excel, and other files, the ability to embed video and audio files, and even the ability to create online quizzes. (Note: more recently, the AECP has made English Central a required element for all Advanced 2 students.)

All in all, many of the websites referred to above, especially those specifically catering to ESL audiences, have their limitations. Many of the tools referred to were developed by teachers, meaning that often the programming or look of the website leaves something to be desired. Some of the websites, such as Quizlet and Rubistar, allow teachers to manage and develop the curriculum itself, but this inevitably creates a vetting or quality control problem and, as a result, a great number of errors in the shared templates are common. Furthermore, teachers themselves must constantly match the vast amount of content to the content of their own classes, making online use unwieldy and inconsistent. Finally, as was mentioned earlier, many of these online tools have not undergone the scrutiny of empirical testing, thus making any claims on their usefulness almost impossible.

As a website and a learning tool, English Central has some clear advantages for ESL teachers and administrators. The English Central platform allows for asynchronous learning, which makes it a possible candidate for homework given outside of the classroom. Furthermore, since it provides progress benchmarks, a teacher can assign a certain amount of work and quickly ascertain whether goals were reached or not. Since English Central has its roots in video players like Youtube and Vimeo, English Central may represent an immediately understood product, thus reducing cognitive load and improving an end user's experience. English Central's similarity to Youtube and/or Vimeo is that, like these ubiquitous online tools, it contains a repository of videos that can be played, stopped, and reviewed, and even liked or disliked. Since the repository contains clips found by famous celebrities, interviews, and shows, students receive authentic language, which may prove to be a motivator compared to pre-packaged language lessons. Thus, because of this already understood delivery system, it is posited that it may motivate students to move beyond the required learning amounts and perform better in

comparison to those in a classroom given traditional homework assignments. It is one of the goals of the current study to ascertain this possibility.

As was noted before, it is not entirely clear whether English Central's open platform, which allows ESL students to choose any video, or the more-controlled platform wherein teachers choose videos (the "channel"), will allow for better gains in learning and motivation. Thus, it is also a goal to ascertain which delivery system in English Central might be most effective.

Purpose of the Study

This study aims to inform various parties including administrators, teachers, and developers. First of all, administrators must ask questions as to the utility of the products teachers are using within the classroom, especially if a decision is made to invest in or mandate such a program. This study will inform administrators on the general utility of the English Central tool as a program-wide tool, and give recommendations as to how it might best be used. Second, it can also inform teachers whether or not to invest time in learning the English Central tool, and whether introduction of this tool is likely to bring learner results. Finally, online learning developers such as those at English Central will be interested to know the strengths and weaknesses of this learning format, and might inform the entire field as to the direction online language learning might take.

Review of Literature

The subsequent section provides an overview of the literature relevant to this study. First, a discussion of the prominent theories on speaking proficiency is presented. Second, a discussion on student motivation, and in particular how it relates to online learning, is also

discussed. Third, an overview of learner, system, and shared control will help demonstrate some of the principles behind this study's design.

Language Acquisition: Speaking

Teaching non-native English learners how to speak English can be difficult. According to Bailey and Savage, speaking in a second or foreign language has long been viewed as “the most demanding of the four skills” (1995, p. vii). Brown strengthens that argument by listing the multiple challenges of speaking in a non-native tongue: reduced forms, contractions, vowel reduction, elision, use of slang, stress, rhythm, intonation, interaction, monitoring while speaking, and modifying one's speech according to the effect of the listener (2001, p. 270-1). Additionally, the number of hours required to be a good speaker can be extremely limited in a classroom setting since students must share speaking time with other students. Instructors often compensate by providing group and pair activities, discussions, and individual or group presentations (Brown, 2001). However, by so doing, speaking becomes difficult for teachers to assess. Instructors cannot easily watch and/or record all learners and, thus, often miss out on providing adequate feedback.

Furthermore, speaking is also difficult to assess since teachers are generally required to create rubrics that contain some of the many possible categories that speaking entails. Teachers must decide: Does speaking include the use of body language? Does speaking include the use of visual aids? These and similar questions demonstrate the difficulty of assigning precisely what speaking, and especially competent speaking, might be.

Early theorists focused almost solely on grammatical accuracy, making classroom instruction somewhat limited in scope but perhaps easier to manage. Theorists in the 1980's rightly shifted that thinking to include other elements that were previously ignored. For

example, Canale and Swain (1980) suggested a theory of communicative competence that, besides grammatical competence, comprises three additional areas: sociolinguistic, discourse, and strategic competence. These three areas highlighted a need for teachers to move beyond just grammatical forms by including a look at overall communication and fluency. Riggensbach and Lazaraton (2001) explain that because of wide adoption of this theory (widely referred to as the “communicative approach”) almost all teachers now use materials that reflect the need to “mirror the authentic communication that occurs in the real world.” Thus, activities that reflect real language rather than “one characterized mainly by input that has been modified or simplified” provides more opportunities for learning since speakers focus on the immediate task of communication itself in “real time” (p. 125-6). In practice, today’s modern language classroom now typically includes much more than grammatical elements. This leads to an interesting dilemma: while it may seem reasonable to include all the features that truly comprise speaking, this often creates an overwhelming burden on classroom instruction that is already limited by time.

Another early theorist, Stephen Krashen, posits a theory that influences communicative competence as well, and may indeed provide a shortcut. He suggests that the improvement of speaking comes not so much by speaking itself as by receiving comprehensible input in the form of watching and listening to others speak, either through daily interactions, videos, movies, or any other form (see Ellis, 2012, p. 246-252 for a full discussion). Years later, after a number of studies, Krashen’s theory still boasts a number of supporters. In a review of dozens of studies for and against his and competing theories, he states that “evidence for the Input Hypothesis remains very strong. In second and foreign language acquisition method comparisons, students in classes containing more comprehensible input consistently outperform those containing less”

(Krashen, 1994, p. 46-7). In other words, students who receive real, authentic, and level-appropriate input tend to perform better than students in other classrooms.

Krashen (1994) asserts that for input to be comprehensible, it must be suited to the level of the individual. In this light, English Central might be seen as a distributor of the kind of input that learners might need in order to become better speakers themselves. Features that seem well suited to helping students receive comprehensible input include videos ranked by degree of difficulty, the ability to repeat and slow down phrases, and a dictionary guide that hyperlinks every word to its definition.

In light of this discussion, one criticism of Krashen's theory, however, deserves some attention. White argues that "certain types of generalizations which learners make cannot be unlearned simply by understanding input" (Ellis, 2013, p. 251-2). White goes on to explain that what is needed in these cases is negative evidence (also referred to as corrective feedback). This means that for learners to acquire language, especially when they have overlooked or overgeneralized a rule, they must receive correction. On the contrary, students who receive no correction may never notice certain elements in the input they are receiving, and thus never attain target-language proficiency.

English Central may boast some features that might help students in this regard. Since English Central provides vocabulary and pronunciation feedback, it is likely that students will better monitor their own progress and know where they are likely to make mistakes. With these tools, students may better adjust their learning. While not the sole focus of this study, some attention will be paid in assessing the effectiveness and use of this feedback.

Student Motivation

Most ESL teachers readily accept the idea that motivation is key to learning a language. One prominent theorist, R.C. Gardner, states that language learners must have “the combination of effort plus desire to achieve the goal of learning the language” (Ellis, 2001, p. 509).

In second language acquisition, theories of “integrative motivation,” first put forth by Gardner and Macyntire (1991) suggest that learners who have a positive attitude toward the host culture and language tend to outperform those who do not. Integrative motivation also suggests that those with positive attitudes toward the learning environment should outperform those who do not (see Gardner, 1980; Gardner & Lalonde, 1985).

While testing this construct initially yielded mixed results, this is likely because of the difficulty of measuring and defining the concepts themselves (see Au 1988 for a brief review). More recently, Gardner, has reasserted the position that integrative motivation is a primary factor for L2 achievement, and thorough results from a 2003 study showed that regardless of the learning environment (whether learning English in an English speaking country or learning English as a Foreign Language), there is a strong correlation between the two (Ellis, 2012).

Motivation in Online Learning Environments. Online learning may sometimes create greater gains in motivation. As was discussed previously, Robinson and Hullinger (2008) demonstrated that online learners reported deeper levels of engagement than their on-campus peers. On four measures of engagement, including academic rigor, active and collaborative learning, enriching educational experience, and student-to-faculty interaction, online students reported higher levels than both freshman and senior on-campus students.

Furthermore, there may be a particular kind of motivation that is more prevalent in online learning. Maehr (1976) introduces the term “continuing motivation” to reflect the concept that

learners with this kind of motivation “reflect an ongoing willingness to learn” (p. 443). While teachers in traditional classrooms can report this kind of motivation when, for example, students ‘stay after class,’ time constraints in the traditional classroom often restrict this kind of motivation. Since online learning is often free from such time constraints, it may prove advantageous. Learners, in this sense, are put in control of their own learning, and with fewer time constraints, continue with online lessons well beyond a teacher’s requirements.

This concept is tied into a larger argument about learner control. While it will be argued later in this discussion that too much learner control is negative, learner control can indeed create better gains in motivation. As Kinzie and Sullivan (1989) explain, by giving learners more control over the learning process; competence, self-determination, intrinsic interest, and even greater personal meaning may result. In their study, they demonstrate that, even though pre-and post-test performance between subjects remained the same, subjects who received a learner-control treatment were more favorable toward the learning program. They state that the results show a highly significant difference in continuing motivation favoring learner versus program control.

While online learning may prove advantageous in some studies, it is important to concede that other studies demonstrate that online learning can be detrimental to learning outcomes. Online learning is particularly susceptible to student criticism, especially when the technology fails or the user misunderstands how to use the technology and, therefore uses “poor approaches to learning with online resources” (Ellis, Marcus, & Taylor, 2005, p. 239). Often students do not perceive the online learning tools intuitively, and as a result, cannot recognize any given tool’s usefulness. Other problems include the fact that institutions often have a wide variety of teacher

experience with technology (Wilson & Stacey, 2003), and that training requires economic considerations as well (Borko, Whitcomb, & Liston, 2009, p. 4).

Furthermore, teachers now have additional competencies to master, which, according to some proponents, includes new roles such as “content facilitator,” “technologist,” “manager/administrator,” “adviser/counselor” and so forth. Teachers often feel overburdened by the many roles they face in the classroom, and often resent being given these additional roles (Goodyear et al., 2001).

In the current design, the question remains as to how to properly motivate students in the English Central environment. On the one hand, giving students charge of their own learning, in some studies, has proved beneficial. However, it is also possible that the use of online instruction is demotivating in a classroom setting, especially if teachers and students see it as an imposed instrument that takes away teacher and student autonomy. This study intends to provide information as to what system (learner control or system) provides more motivation to students. This will be discussed in more detail in chapter two.

Learner Control

Learner-control (LC) online instruction has often been assumed as superior to instruction that is system-control (SC). Many studies confirm this assumption, demonstrating the effectiveness of computer-based instruction in various forms including adaptive hypermedia (Brusilovsky, Kobsa, & Nedjl, 2007), adaptive multimedia learning (Kalyuga, 2008), and intelligent tutoring systems (Anderson, Corbett, Koedinger, & Pelletier, 1995; Mitrovic, Koedinger, & Martin, 2003; VanLehn et al., 2005). While the superiority of LC instruction is often presumed, there are some studies that suggest there is no particular advantage (Corbalan, Kester, & van Merriënboer, 2009; Swaak & De Jong, 2001) and perhaps even demotivating

(Katz & Assor, 2007). Some researchers have gone on to suggest that the entire field of study for learner control is flawed because the definitions of learner control are too varied, and the ability to study such diverse abstractions are impossible (Reeves, 1993). However, a clear picture about learner control studies has emerged in regards to learner expertise. While students often enjoy learner control, whether or not learners actually receive benefit from such control depends upon their level of expertise. Thus, designers are encouraged to balance between learner and system control based on this simple dynamic.

As Corbalan et al. (2009) explain, learners must have free cognitive resources because LC posits an additional load on cognitive processing. Researchers conceptualize this need for free resources as prior knowledge of the material presented. This greater skill or knowledge may have a dual effect. First, since the more experienced or skilled group tends to have less cognitive load, additional LC features are not as intrusive or disruptive (Williams, 1996). Second, since the more experienced group is unlikely to want to listen to already understood material, system-control environments can be very de-motivating, whereas LC environments can increase motivation and create better learning outcomes (Cordova & Lepper, 1996). Thus, the ability to skip past already understood material becomes a tool that increases productivity (Clark, Nguyen, & Sweller, 2006). Mayer and Chandler (2001) also demonstrated positive results from a learner control model, showing that properly segmented instruction can help to lower cognitive load and create better learning outcomes.

However, this leads to one of the most critical queries for this study. Are advanced language learners experts in online education or not? One might posit that because they are advanced language learners that they might enjoy and learn more in a learner control model. However, it may also be that advanced language learners, because they are still not completely in

command of language processes, struggle to understand a website that is not provided in their primary language. Thus, controlling certain aspects of the process might increase both enjoyment and learning.

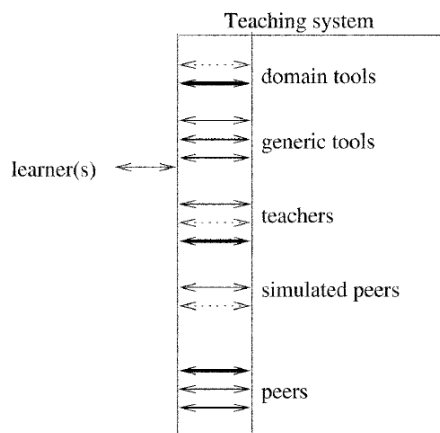
To complicate matters, language level may not be the only variable that increases or decreases cognitive load for this particular group of students. ESL students who report greater degrees of comfort in online environments and have more experience with online learning may indeed outperform those who report less comfort with the English Central environment, thus demonstrating that expertise in online learning environments matters as much if not more than language level itself.

Since it is unclear how much control to provide advanced English-as-a-second-language learners, this study demonstrates two differing amounts of learner control. What follows is a review of learner and system/shared control principles that undergird the current study's basic design. First, a review of the advantages and disadvantages of learner control is given, and then a discussion of system and shared control will help inform the current design.

The basic argument for learner control touts that LC environments give learners the ability to find information when and how they want it. Judy Kay (2001) suggests defining learner control as an instructional technique for learners to “control the learning process” and “actively [construct] their own understanding of a learning domain” (p. 114). Under this definition, learner control might be seen in terms of an environment wherein learners are free to select what information they see and in what sequence (Lawless & Brown, 1997). Such tools might include the ability to stop and start, skip, review, speed up, and slow down the material as it is presented. These “control” tools, in turn, theoretically give rise to better learning gains.

In an attempt to demonstrate how LC tools interact with the learner, Kay (2001) put forth a simple diagram. In a condensed version of her diagram below (Figure 1), a learner is shown interacting with a number of tools (domain and generic), and an accompanying support system (teachers, simulated peers, and peers).

Figure 1.1: Kay's Learner Control Model



The varying strength of the lines (some dotted, some bolded) are meant to suggest how student use of any one particular tool varies, and highlights the concept that in an LC system, learners can ignore, use, or obsess over any of the multiple opportunities available to them (for a more detailed description, see Kay 2001).

Learner Control and the ESL student. Several concerns about learner control appear in the literature with regard to English-as-a-second-language students. Some researchers in cross-cultural studies suggest that Asian students, such as Japanese or Chinese students, may not wish to engage in the kind of do-it-yourself learning that comes from largely Western perspectives (Heinle, 2003; Iyengar & DeVoe, 2003; Oishi, 2000). If true, learner control might be seen as a poor fit for those who do not believe strongly in self-directed learning behaviors. However, in two studies on Chinese learners, researchers found the opposite. They note that, among these

Asian students, “autonomous study motivation positively predicts adaptive learning attitudes and academic success... whereas controlled motivation was associated with higher drop-out rates [and] maladaptive learning attitudes” (Vansteenkiste et al. 2005, p. 468).

Other possible problems of learner control for ESL learners include disorientation, referring to the inability of students to navigate an online learning system, distraction by the environment (Scheiter & Gerjets, 2007), and lack of instructor knowledge to act as technical support (Peng, 2010). Above all, what these issues demonstrate is a need to clearly design LC environments, and to ensure that learners and instructors are aware of and able to manage the navigational tools given them.

Other Issues with Learner Control. One important aspect that was touched on briefly in the discussion on expertise is whether or not learners perceive the opportunities that the controls represent (Corbalan, Kester, & Merrienboer, 2009). As one might conclude from the concept of increased cognitive load, a technological novice might encounter a number of useful features that could truly increase understanding, yet that learner may perceive the helps negatively because they are seen as distracting or overwhelming. To state the point generally, learners might see certain features but fail to see them as advantageous simply because they do not understand or perceive the benefit associated with the feature. Thus, learners fail to recognize the opportunities given to them (Perkins, 1985). This inability to recognize opportunities may be exacerbated by the fact that learners in online environments tend to rush to completion of a task rather than consider the task as a time to explore. If learners see learner control as empowering, important, and useful, then the chance for the tools to be used increases. In fact, even when the controls given are not associated with the learning outcome, learners often perceive the program more positively and, in turn, perform better as a result (Cordova & Lepper, 1996; Katz & Assor, 2007;

Kinzie, 1990). This may suggest that focusing on superficial features of control rather than actual content choices may indeed create an illusion or feeling of control that, regardless of the amount, may benefit students. Such features might include access and control over personal information (what should my user name be? What picture do I want for an avatar?), access to the user model (for example, the ability to access what is being measured and why), and detail views that demonstrate what a learner has achieved (Kay, 2001).

Finally, in actual practice LC systems can be difficult to design. One reason for this is simply due to the lack of clear separation between learner and system control. While it might be obvious in certain contexts that activating or deactivating certain features give learners more or less control (for example, a hyperlinked dictionary), there are always a number of controlled features in any one system. Thus, the dichotomy between LC and SC environments is more of a theoretical construct for researchers than a reality (Reeves, 1993). In fact, most researchers would agree that the point is not whether LC is better than SC environments, but how much control a particular group should be given in a particular online environment (Clarebout & Vandewaetere, 2011). To this end, some studies are designed to show which LC features are useful and which represent too great a cognitive load (e.g. Hasler, Kersten, & Sweller, 2007). Ultimately, most researchers studying online learner control have identified the importance of striking a pedagogical balance between these two. In the current study, two competing models were developed that closely mirror the models most often used in the English Central environment. These should be rightly called a learner control model (which gives students access to choose from thousands of videos) and a shared control model (which limits the ability to choose content, but still allows certain amounts of learner control).

Shared Control

The argument for shared control stems from the idea that too many learner controls can be ineffective or even detrimental (Corbalan, Kester, & van Merriënboer, 2009; Katz & Assor, 2007; Swaak & De Jong, 2000). In addition, shared control offers designers the chance to carefully construct the material and pacing of an environment. While learner control can be seen as beneficial to learners with certain characteristics, it holds true that system control may be beneficial to those students who do not have those characteristics. As was discussed earlier, expertise is a characteristic of those who both enjoy and perform well in LC systems (Corbalan et al, 2009). In most of these same studies, what is being suggested is that those who are not experts may not enjoy or perform as well as their expert counterparts (Williams, 1996). In this line of thinking, it may hold that ESL learners, as non-experts in English, may find open platforms designed *in English for English* too unstructured and frustrating.

The case for controlling certain number of variables in the English language environment is heavily made by ESL theorists. ESL professionals have long suggested that classrooms be *controlled* language labs, with guided content to help learners engage in material in an organized, systematic way. Such variables that are often controlled involve language level, content and context, high interest, and vocabulary.

Language Level. Perhaps of principle concern for an ESL environment is the need to control the language level of the environment. Stephen Krashen, whose comprehensible input theory was discussed earlier, proposes that a learner must engage in language that is just beyond the learner's current language system (1985). In this hypothesis, he claims that acquisition results from comprehensible input, meaning that without linguistic simplification and the help of "contextual and extra-linguistic clues," a learner is not likely to understand the information

given. Thus, adhering to the language that fits the level of the learner becomes a primary goal of any curriculum (Ellis, 2013, p. 246).

Content, Context, and High Interest. Another principle concern is the need to control for content. Some theorists suggest carefully building language curriculum around relevant themes. For example, concrete lists for themes have been created with linguistically diverse students in mind (see Kucer et al, 1995; Whitmore & Crowel 1994). Freeman and Freeman suggest that by carefully choosing content, English learners more easily develop academic language because certain terms repeat naturally during the theme study (1998). Furthermore, pre-selecting content that matches an ESL student's background is often seen as key to both motivation and learning. By adjusting the purposes for learning English to the kinds, types, and genres of English, students are more likely to advance in their own areas of need and expertise. As Brown (2001) points out, many of the current titles in ESL, especially when learners move beyond basic levels, offer theme-based courses. English for Special Purposes (ESP) is a growing field that addresses that precise belief, with hundreds of offerings such as nursing, aviation, business, and academic coursework.

Vocabulary. Another area that is often controlled is vocabulary. Whereas the English language contains well over 100,000 words, a number of textbooks try to engage students in the more frequently used vocabulary such as the AWL (Academic Word List). Several studies have demonstrated the need to introduce vocabulary that learners are likely to encounter at their current language level and context, and to introduce those words using recycling (Nation, 2001; Singleton, 1999). Recycling is a term that refers to the strategy of demonstrating vocabulary words in more than one context, with the belief that learners who are provided chances for

repeated use of the same word will more likely retain those words and use them correctly in context (Murcia, 2001) (see Gass et al., 1999).

Research Questions

The research questions for this study are as follows:

1. In addition to 168 hours of classroom instruction, does the use of English Central as a homework tool create better learning gains in speaking fluency for the treatment groups (learner and shared) vs. the control condition?
2. Is the shared-control or learner-control system in the English Central environment better at achieving learner gains in speaking proficiency?
3. Is student attitude, operationalized as the combination of motivation, ease of use, and feelings about technology, affected by the learner control and shared control models? Do other variables such as age, gender, first language, and teacher affect learning outcomes?

CHAPTER 2—METHODOLOGY

Participants and Design

The American English and Culture Program is an intensive English program dedicated to providing academic, cultural, and English language immersion for aspiring collegiate students. In 2012, 1,172 students came from fifty-three different countries. Top ten countries include Saudi Arabia (471), China (143), South Korea (97), Japan (81), Kuwait (71), Taiwan (59), United Arab Emirates (41), Indonesia (39), Qatar (37), Brazil (13), and Mexico (13). Most students have student visas (F-1), although forty-one students came on work (J-1) or other types of visas.

Advanced 1 Students represent one of the largest portions of the program population (about 15-25%). These students have attained a high level of English, often equating to around a 450-500 on the TOEFL exam. Such students typically have desires to study business, engineering, or the hard sciences. While there is a great diversity among them, these students also tend to come from backgrounds wherein English study was a requirement in their home country's educational environment. Students are placed in two core classes (Reading and Writing, Listening and Speaking) and choose from an array of electives to round out their study. Students are required by visa regulations to complete at least twenty-one hours of study. Students at the Advanced 1 level are placed into classes with a class size averaging fifteen students.

As previously discussed, the current design consists of a single independent variable with three levels. These levels correspond to learner-control, shared-control treatment, and a no treatment control. Prior to the study, participants were placed into a total of twelve classrooms by a school administrator, who made concessions for gender and country of origin (seeking to have equal numbers for each class). Afterwards, each classroom was randomly assigned to a

condition. Instructors for each classroom were then informed of the subjects' conditions within their own classrooms. All instructors in the study were ESL professionals with at least five years of experience and a master's degree in TESOL or a related field.

Design of Learner Control

In the learner control model, learners were given open access to the entire repository of videos available on English Central. Through a teacher script (see Appendix D), they were instructed on how to select videos, but were explicitly given a charge to find any video they wished. To ensure approximately equal amounts of time spent learning English online each week, learners were given benchmarks set by an internal English Central system. On average, English Central's platform has determined that for four videos watched, students receive approximately 14.7 hours of instruction. Thus, participants were each encouraged to watch four videos, each at least two minutes in length. Additional benchmarks are also included to ensure that students are using the speaking component. Again, English Central's platform has derived an average of 1,000 speak points per two-minute video.

Speak points are assessed by grading how similar a speaker sounds to a database of native speech segments. English Central developed and uses a system they refer to as the "Speech Assessment System." It uses speech recognition software based on over one hundred million utterances to "provide users a consistent measure of pronunciation quality" (English Central, 2015).

English Central reports the following:

Students are graded by how similar they sound to native speech. When the student's speech differs significantly from that of a native speaker, the grade is reduced. The places on the line that differ are highlighted by the word turning yellow. The student

should click on yellow words, and compare their speech to that of a native speaker. The system will help the student identify differences by highlighting the locations in the word that differ. The student should try to imitate the pronunciation of the native speaker. Students can gain up to a maximum number of points for each line spoken. These maximum possible points are different for each line, and are set by the difficulty of the line. Every time the pronunciation of a student differs significantly from that of a native speaker, points are deducted from those awarded. Perfect native speech will earn the maximum possible points. Speech that differs from native will earn less. As the dialog proceeds, the maximum and awarded points accumulate. The student is graded by the ratio of the earned points and the maximum possible points. This grade is displayed after every line. After the final line, the student is given a grade, and earned points for the dialog. (English Central, 2015)

Additionally, participants were required to learn twenty vocabulary words every week. This number was derived from the fact that each video automatically highlights five vocabulary words and creates interactive exercises to recycle (a linguistic term that means to periodically reinforce words in order to enhance recall). English Central explains briefly the process of choosing words based on the videos in its database:

Scientific Approach to Word Choice. The English Central vocabulary learning system is based on an analysis of over 400 million words. The English Central vocabulary learning system uses this analysis to identify and rank the most important vocabulary words by difficulty level, and then tracks every word the learner sees, speaks, and studies over time to track and accelerate learning. These words can be sorted and learned by frequency, by correlation to test scores such as TOEFL or TOEIC, by goals such as learning business

English or English for movies, or by studying the specific words contained in particular videos. Research shows that spaced repetition is the most efficient way to learn new words quickly. This learning technique is prominently used in flashcard based system. English Central goes farther by providing spaced-repetition learning in the context of authentic videos. Providing authentic context increases retention and improves the experience. English Central's computer-adaptive learning system teaches words in the authentic contexts in which they occur, allowing learners to develop definitional and collocational knowledge of the words they are studying in a wide range of contexts. (English Central, 2015).

Design of Shared Control

In the shared control environment, subjects were given videos carefully selected by a team of four ESL veterans. This team of curriculum designers had all taught the Advanced 1 Listening/Speaking course multiple times each, and all held the highest rank in the teacher organization (lecturer). In addition, they held positions of authority including curriculum and computer coordinator. All of these teachers hold a master's in TESOL or a related field and have at least five years of ESL experience. This team was selected by the director of the program, who expressed interest in creating a channel for the Advanced 1 level. This team selected a total of forty eight possible videos corresponding to twelve themes (four videos per theme) for students to watch over the eight-week period (see Appendix A). A serious vetting process to select videos included a look at the level of each video as well as content, high-interest, and vocabulary.

Content. Videos were selected ahead of time to mirror those themes that are discussed in the classroom on a week-to-week basis. Themes were as follows: Communication Studies

Child Psychology, Sociology, Business and Global Marketing, Cognitive Psychology, Anthropology/Biology, Astronomy, Political Science, Linguistics, Economics, Biology, and Sociology. Teachers generally chose a new theme each week, and with twelve themes to choose from in seven full weeks of instruction, this means that a total of twenty-eight videos were required for students to watch (which matches precisely with the number of videos required for the learner control condition). With a total of twelve possible themes, some variability existed for teachers to choose which theme would best match their students' interest, and this was deemed an important choice: to provide teachers with the ability to select themes that best represented what they wanted taught in class.

Level. While videos that matched the theme and content were of primary interest, the four ESL veterans were asked to look mostly for advanced level videos of a consistent length. Each unit of four videos contained academic language that mirrored the language used in advanced level classrooms. Of the forty-eight videos, thirty four were identified by English Central as being an advanced level, and an additional twelve were identified as intermediate level. Two videos were identified as beginning videos, but were ultimately deemed acceptable because the content of those videos matched the curriculum precisely.

High-interest. During the selection process, videos were also chosen based on high interest. To do so, the four ESL veterans, after selecting a number of videos, were asked to remove any videos that would not be considered "high interest." With this selection of videos, the scores were further reviewed by two student workers with backgrounds in TESOL. These workers reviewed each video and assigned a score between one and ten (one meaning low interest, and ten high). Finally, the researcher also gave high interest scores based on his

experience in the Advanced 1 classroom. The mean score of the final videos given was 6.94, and no video selected scored under five.

Vocabulary. Finally, the four veteran ESL instructors selected vocabulary within the videos as well. The veterans reviewed each video and selected the vocabulary most pertinent to each theme. These vocabulary words were shared with English Central designers, and were consequently included in the vocabulary quiz section of the English Central player. Thus, in the shared control environment, all students shared similar vocabulary input as their classmates.

While the 48 videos were chosen to reflect the chapters of the textbook used in class, a concession should be made that instructors in the study (not the 4 ESL veterans, but the 12 instructors) are allowed to choose which chapters to focus on in any one class. This follows natural policy within our organization to have teachers have semi-autonomy over their own curriculum. Thus, while the shared control model gave instructors 48 videos to choose from (4 videos for 12 chapters), instructors choose 28 videos (7 chapters) that they deemed appropriate for their classroom.

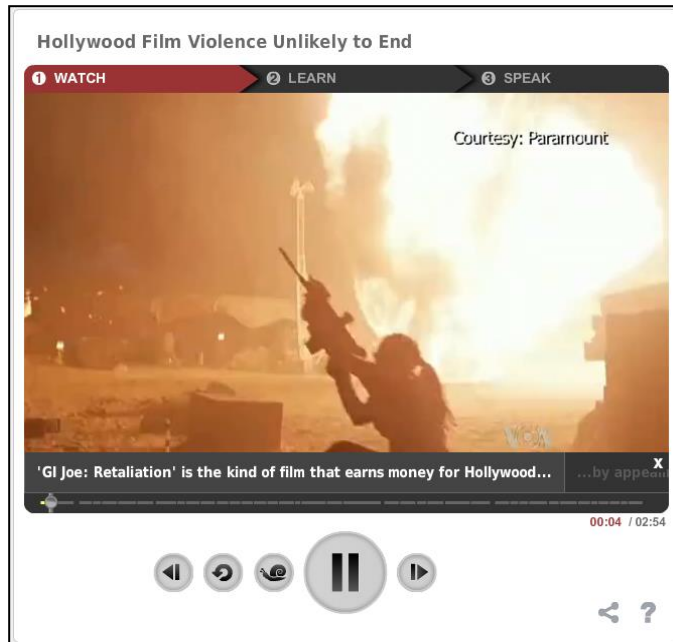
Design Similarities in Both Conditions

The video player (see Figure 2.1) is a constant feature regardless of condition, and was thus given to both the treatment groups. This gave a certain amount of learner control to ALL participants, such as the ability to:

1. Pause, stop, and go back to previous segments during the watching of a video
2. Slow down videos (slow down the rate of speech)
3. Review previously watched videos
4. Click on any particular word for a hyperlinked dictionary

The video player follows a tripartite structure (watch, learn, and speak), meaning that all students must first watch the video uninterrupted, then learn vocabulary words in a gap fill activity, and then mimic the speech from the video in order to practice pronunciation.

Figure 2.1: Video Player (in both treatment conditions)



All learners in the treatment groups also had access to their personal information, which includes up-to-the-minute reports detailing overall course completion, watched videos, learned words, speak points, spoken videos, pronunciation feedback, lines recorded, and overall grade (based on the internal benchmarks). A brief overview indicating overall amount of control for both treatment groups is provided in Table 2.1.

Table 2.1: Learner Control Elements in Each Format of the Present Study

Control Element	Learner-controlled Format	Shared-control Format
1. Personal information (user name and password)	Yes	Yes
2. Pause, stop, slow down, review	Yes	Yes
3. Access hyperlinked dictionary	Yes	Yes

4. Access reports	Yes	Yes
5. Review top scores in your class	Yes	Yes
6. Vocabulary Learning Feature (databank of words learned called “My Words”)	Yes	Yes
7. Select content (videos)	Yes	No (selected by ESL professionals)
8. Select vocabulary	Yes	No (Selected by ESL professionals)
9. Vocabulary Learning Feature	Yes	Yes
10. Pronunciation Learning Feature	Yes	Yes
11. Select amount of content	No	No
12. Select language level	No	No

English Central Online Learning Tool

English Central’s basic video player format involves a tripartite structure called Watch/Learn/Speak. This format allows for students to interact three times or more with a video. In all three parts of the format, closed captioning appears below the video screen. As previously indicated in chapter 2 (Table 2.1), both treatment groups will be given access to all features of this video player.

Watch Feature. In this format (see Figure 2.2), a video is first watched in its entirety on a video player with certain navigational controls. Students are able to speed up, slow down, and replay each video and/or portion of the video in the watch format. In watch mode, under the video itself closed captioning appears and key words are underlined. The text appears just above a green bar, which demonstrates the length of each segment of the video. Videos are typically between two to ten minutes in length, and vary in language level, which is indicated below the player to the left. In the channel format, however, items such as length and level can be more easily controlled. The popularity of a video is indicated below the player to the right, which can

be gauged by both number of views or Facebook likes. Finally, a download button is also available just to the right of the popularity measure.

Figure 2.2: Watch Feature (in both treatment conditions)



Learn Feature. The format that follows (Figure 2.3) allows students to listen to the video again, but with an additional task. They are invited to type in key words as they hear them. The word may be listened to in the context of the phrase as many times as the learner chooses. Each space represents a single character in the word, and words must be spelled correctly. A misspelling is indicated after a word is spelled by highlighting in red the characters that were incorrect, with the dictionary showing correct spelling (as well as the definition and pronunciation).

Figure 2.3: Learn Feature (in both treatment conditions)



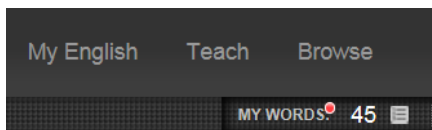
There is also a databank (see Figure 2.4) which will record all words reviewed in the learn feature so that students can continue using the words in context even after they watch the video. This quiz feature allows students constant review with the vocabulary that is targeted by the curriculum/channel.

Figure 2.4: “My Words” Vocabulary Learning Feature (in both treatment conditions)

Word	Progress	Difficulty
FAVORITE <i>noun</i> : a person or team that is considered most likely to win	●●●●●	1
SEE <i>noun</i> : the seat within a bishop's diocese	●●●●●	1
VIDEO <i>adj</i> : refers to uploading video clips online and making them public	●●●●●	1
LOVE <i>adj</i> : having attractive or appealing qualities	●●●●●	1
LIFT <i>noun</i> : a free ride in a vehicle	●●●●●	2

This feature can be found while on any screen within the website on a tab just below the main header called “My Words” (see Figure 2.5). A red dot to the side of the “My Words” link indicates that there are words yet to be mastered within the My Words space, and the number of words in the databank is indicated just to the right. Students can review words learned at any time. An additional quiz feature is provided in the shared control environment, in that a quiz feature link appears after each week’s series of videos for learners to review words from that week.

Figure 2.5: “My Words” Vocabulary Learning Feature (in both treatment conditions)



Speak Feature. The last feature (found in Figure 2.6) of the video player is perhaps the most technologically sophisticated . Here learners are required to speak or mimic the phrases of the video. Voice recognition software is sensitive to accent and gender, and calculates a score and provides feedback on the sounds that are in need of improvement.

Figure 2.6: Speak Feature (in both treatment conditions)



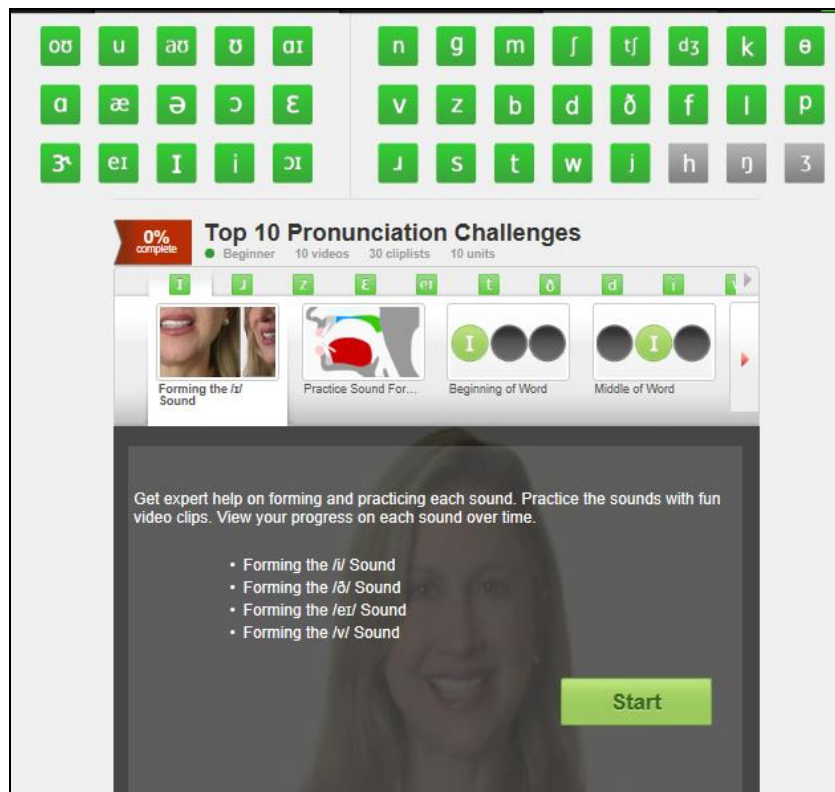
In association with this feature, a learner can also attend to a databank of sounds that are identified as “the most difficult” by looking at the pronunciation toolbar found in the header (Figure 2.7) to the right of “My Words.”

Figure 2.7: Pronunciation Toolbar



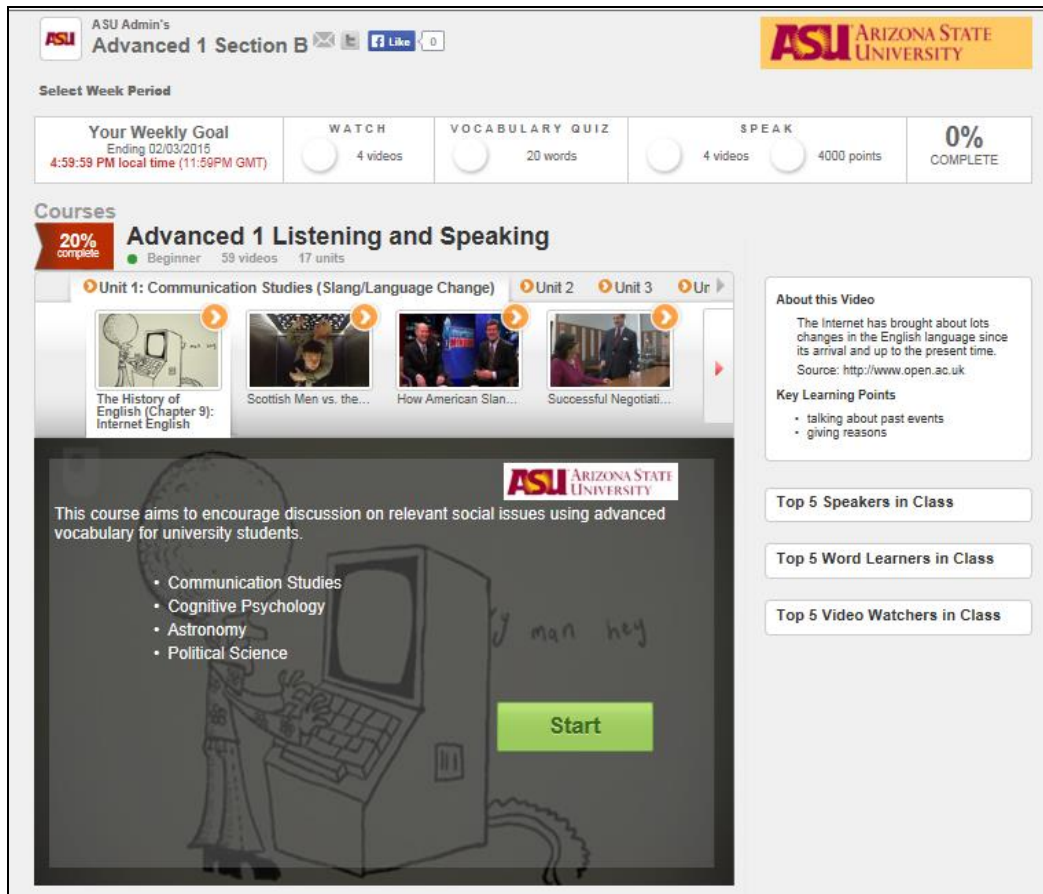
Sounds, indicated by the phonemic alphabet, are shown in green (if mastered) or red (if un-mastered). By clicking on this pronunciation tool, a learner will go to a databank (Figure 3.8) that gives access to resources for a learner to work on specific sounds based on individual needs. A learner can select a discrete sound which will attach to a series of videos for improvement on that sound.

Figure 2.8: Pronunciation Learning Feature



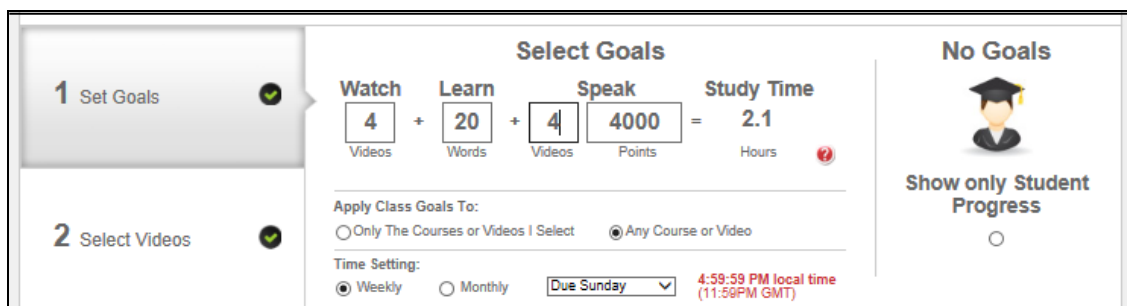
Shared Control. A shared-control model on English Central involves the careful selection of videos by a school into a “channel.” This model emphasizes the teacher’s ability to choose from English Central’s repository of videos and select specific videos based on interest, topic, and level. Often this model is used to create a course that follows a particular course (for example, by following the chapter themes in a textbook). In the example found in Figure 2.9, the American English and Culture Program designed a course called Advanced 2 Listening/Speaking Channel, with units that correspond to chapters of a textbook covered in class. Units may be composed of as many videos as the curriculum dictates. In this particular example, each unit contained four videos each, which, on the whole and based on video length, corresponded to 2.1 hours of study.

Figure 2.9: Shared-Control Design: The Advanced 1 Listening and Speaking Channel



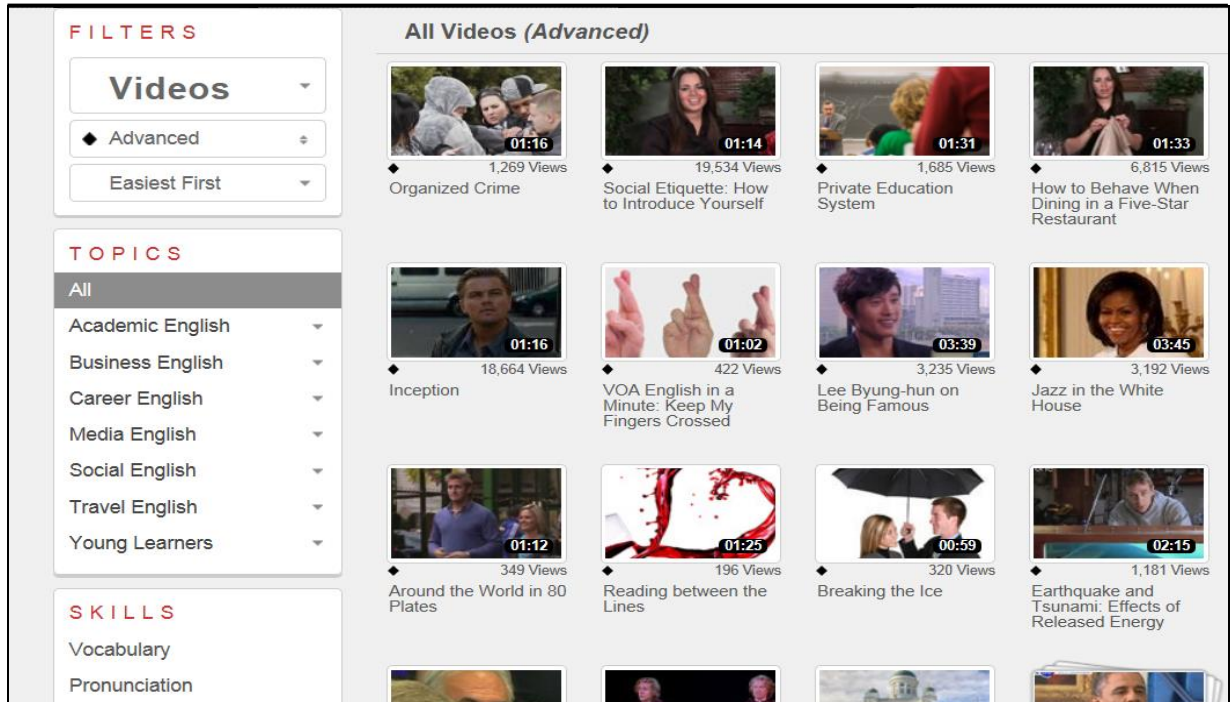
Learner Control. Finally, rather than creating a channel, learners themselves can be given access to choose videos of interest themselves. In this model, learners were given goals or benchmarks (Figure 2.10). Notice that the amount of hours matches precisely with the amount of hours in the shared-control design (2.1 hours).

Figure 2.10: Shared-Control Design: The Advanced 1 Listening and Speaking Channel



After setting goals, teachers can invite students to look at the large repertoire of videos found in the “Browse” feature of English Central (Figure 2.11). English Central has a wide variety of videos that students can look for according to topic, key word search, channels, and pronunciation.

Figure 2.11: Shared-Control Design: The Advanced 1 Listening and Speaking Channel



Control Group. The control group also received homework assignments, but not using the English Central system. Teachers reported using speaking assignments such as interviews and audio discussion boards. Teachers also reported listening assignments such as watching videos from Tedtalks.com and other online sources. Often, note taking was used to assess students’ fidelity in following the out-of-class assignments. The average amount of homework assigned was approximately 2.3 hours, meaning there was slightly more treatment in the control group.

Materials

At the start of the class instruction, instructors in the treatment condition all received access codes to either the shared-control or learner-control version of the English Central platform. Within the first week, access codes were assigned to subjects through teacher-student email. A link sent to each student allowed the student to enter into an online classroom wherein the teacher could monitor student activity. Since the use of headphones with a microphone was a materials requirement, subjects that may have been without a built-in microphone on their computer were given headphones.

Measures

Versant Test. The Pearson Versant English Test is a well-known test in the English as a Second Language field. Its use varies from corporations (to evaluate the speaking proficiency of employees) to academic institutions (to evaluate subjects). Versant boasts a high degree of reliability and validity, and at the overall score level, the test scores “are virtually indistinguishable from scoring that is done by careful human transcriptions and repeated independent human judgments. The correlation between the two is 0.97” (Versant website).

The Versant test is a 62-item test conducted over fifteen minutes and is composed of reading, repeats, short questions, sentence builds, story retelling, and open questions. It has a range of scores from 20-80 and reports sub scores on sentence mastery, vocabulary, fluency, and pronunciation. It is a randomized item test and can be delivered over phone or computer. It is comprised of six sections (A-F). For purposes of this study, the Versant was taken over the phone (since some students at the beginning had limited access to headphones with microphones). Students are given an access code with instructions on a sheet of paper, and are

then instructed to take the test within a certain time frame. The test may be taken on any phone, although a stable connection is highly recommended.

For full sample test items, please see Appendix C.

The Student Attitudinal Survey. The attitudinal survey is a three-part thirty-item survey with twenty-seven questions in a Likert scale format. The Likert scale has a range of five, and is scaled from one (strongly disagree) to five (strongly agree). Questions in Parts 1 and 2 were adapted from the System Usability Scale (Albert & Tullis, 2008). Sauro reports the SUS to have a high degree of reliability, with a Cronbach’s alpha of .92 (2011). The survey includes nine questions about usability (2, 3, 4, 5, 6, 7, 10, 12, 13), all with the intent to demonstrate student feelings about how usable the platform was. Questions 2-7 asked students to reflect on the complexity or simplicity of the tool and whether or not it was perceived as user friendly. Question 10, 12, and 13 were all quality questions. Question 10 asked about the quality of videos themselves. Question 12 asked about the quality of customer support, and question 13 asked if the time for completing the English Central assignment was sufficient. Questions were deliberately randomized.

Table 2.2 Usability Questions

2. I found this website unnecessarily complex.
3. I think that I would need help to be able to use this website.
4. I found this website very awkward/confusing to use.
5. I would imagine most people would learn to use this website very quickly.
6. I feel very confident using this website.
7. I needed to learn a lot of things before I could begin with this website.
10. The quality of the videos were very good.
12. I was satisfied with customer service at English Central.
13. The amount of time given to complete English Central assignments was enough.

Ten questions about motivation were also included (1, 8, 9, 11, 15, 16, 17, 20, 22, 23).

These questions aimed to understand student engagement and enjoyment of the tool, and whether the tool (and subsequent parts) was perceived as one that was useful outside of the classroom.

Table 2.3 Motivation Questions

1. I think that I would like to use this website frequently.
2. I enjoyed using this website.
9. I would recommend this website to a friend, classmate, or family member.
11. I will keep studying with English Central after my class ends.
15. The watch feature helped me learn English.
16. The learn feature helped me learn English.
17. The speak feature helped me learn English.
20. I enjoyed this class (course).
22. This course helps me improve outside of class.
23. This course will help me for a long time.

Five questions were also given about technology in general (21, 24, 25, 26, 27). These questions. These questions were created to understand student views of technology (websites, online learner tools) in general.

Table 2.4 Technology in General Questions

21. The technology in this course was good.
24. I like courses with technology.
25. I have used websites to learn English in the past.
26. I am comfortable using English Central Technology
27. I wish I knew more about how to use technology.

Question 28, 29, and 30 asked for demographic information (age, gender, and first language, respectively).

Teacher Attitudinal Survey. Teachers were given a revised version of the student attitudinal survey. There were two parts. The first part asked questions based on usability and motivation and excluded general questions on comfort with technology. The technology questions were excluded since the purpose of this portion of the survey was to ascertain if teachers' feelings toward the English Central platform. It was posited that teachers' feelings might have an influence on student performance, and the survey was used to determine any possible teacher effect caused by teacher attitudes.

Table 2.5 Teacher Attitudinal Questions (Motivation and Usability)

1. I think that I will use this website frequently. (motivation question)
2. I find this website unnecessarily complex. (usability question)
3. I think that I would need help to continue using this website. (usability)
4. I find this website very awkward/confusing to use. (usability)
5. I imagine most students would learn to use this website very quickly. (usability)
6. I feel very confident using this website. (usability)
7. I needed to learn a lot of things before I could begin with this website. (usability)
8. I enjoy using this website. (motivation)
9. I would recommend this website to a colleague. (motivation)
10. The quality of the videos are very good. (usability)
11. I will keep using English Central. (usability)
12. I was satisfied with customer service at English Central. (usability)
13. The amount of time given to complete English Central assignments was sufficient.(usability)
14. English Central helped me use my textbooks. (usability)

The second portion of the teacher survey asked three additional questions. The first question asked teachers how many hours of homework they provided each week. The purpose of this question was to determine equality of treatment. The second question asked for a positive

view of English Central, and was phrased to elicit open-ended responses: How is English Central particularly suited to English language learning. The second question asked for a negative view of English Central, and was also phrased to elicit open-ended responses: How could English Central be improved to better English language learning.

Semi-structured Interviews. In addition to the surveys, students and teachers in the study were given a chance to participate in semi-structured interviews. All students, after and during the study, were given open access to the researcher. Several students contacted the researcher throughout the study via email. All students who contacted the researcher were given the opportunity to share their opinions both via email and in person. All teachers in the study were given a chance to share their idea about the platform in semi-formal interviews and emails. To avoid creating bias, the researcher did not solicit responses from students or teachers, although the follow up question “What else did you think about English Central?” was given. Teachers were also given an additional question after the study, which was: “What do you think might have contributed to your students’ success or lack of success using English Central?”

Procedure

The study ran in spring 2014, with follow-up procedures and data collection through May. Initially, each student was assigned to one of multiple sections of a listening/speaking course, and each course was randomly assigned to a condition. In all, twelve sections were created, and class sizes varied from fifteen to eighteen participants, with each course meeting daily at the same time for every section.

All participants received a Pearson Versant pre- and post-test (before and after treatment). The two experimental groups were assigned a minimum of 14.7 hours of English Central treatment. As explained previously, Group A received the teacher-created channel

(shared-control) consisting of twenty eight videos while Group B received the open platform (learner-control) and were given benchmarks that match the length of time. The control group (Group C) received no English Central treatment but received approximate equal time through out-of-class homework. Participants in Groups A and B, upon completion of the course, received the motivational questionnaire (Appendix B) detailing their experience with the English Central tool. Each teacher received a schedule identical to the one given in Table 3.11.

Table 2.5: Schedule of Events

Week 0 (Before Classes Begin)	Training of A1 L/S Teachers (1 hour) Overview of English Central Overview of Versant Random Selection
Week 1	Set up English Central Accounts Pre-Test for Groups A, B, and C (Versant Phone Test) Start Treatment Period (Group A and B)
Week 2	Treatment Period for Group A and B
Week 3	
Week 4	
Week 5	
Week 6	
Week 7	
Finals Week	Post-Test for Groups A, B, and C (Versant Phone Test) English Central Survey (Attitudinal Survey)
Post-Study Events	Possible Interviews

Week 0. Before classes began, instructors were present for a training meeting on the English Central study.

Training in week 0 was three-fold. Teachers were trained on:

1. Consent forms. All instructors were given consent forms for their students (see Appendix F). They were informed that while the study was voluntary, participation in English Central would be a required and graded part of each student's grade. Instructors were informed to read the consent form on the first day of classes word for word. Any questions about consent not answered in the consent form itself would be relayed to and answered by the researcher.
2. An overview of English Central. Instructors were given an overview of the English Central website. They were told that they had already been given access (through an email link previously sent to each instructor), and instructors were told how subjects would sign up for that access (instructors were required to send a link and "invite" students to their classrooms). Instructors were also told that all subjects in the treatment groups would receive training during the first week with the researcher and the instructors in a computer-mediated space, thus ensuring that each student was able to register and begin practicing on the English Central platform, and also to ensure that each group received equal training. Teachers were also informed that all subjects would receive access to English Central free of charge.
3. An overview of the Pearson Versant. Instructors were given separate codes (up to 20 each) for every member of their classroom. They were also instructed to inform subjects of the deadline for completing the pre-test. Instruction guides were provided on every code sheet (see Appendix G). Teachers were told to assign codes to each student present in the first three days of class, and that subjects would be given their scores as an added benefit for participation in the study. A sign-up list was provided for each teacher to keep track of assigned codes.

Week 1. Subjects were given consent forms upon their entry into the class. Teachers gave each student the access code and phone number for the Versant Test, and directions were read by the instructor on how to take the test via phone. Directions (with the phone number) were also printed on each access code. The Versant Test was then administered over a forty-eight hour time period.

On the last day of week one, subjects from Groups A and B visited a computer-mediated classroom with the researcher and a student worker. Since all Advanced 1 Listening/Speaking classes met at the same time period throughout Arizona State University's campus, teachers brought their students to the classroom space and each treatment group met simultaneously. Advanced 1 Listening/Speaking classes are a total of two hours (120 minutes), so treatment group A was given training in the first hour, and treatment group B was given training in the second hour.

Subjects were given instructions (see Appendix D) on how to sign up to English Central, and were also given a tutorial on how to use the English Central tool. Two sets of instructions were provided depending on condition. In the shared control group (Group A), subjects were instructed to choose from the videos assigned to their classroom based on the themes the teacher would assign, and that if they completed the videos correctly, they would be able to meet the four weekly goals found in the benchmarking tool (videos watched, words learned, videos spoken, and speak points). In the learner control group (Group B), subjects were instructed to choose any video. They were also told to pay attention to the benchmarking tool (found under the curriculum tab) in order to achieve an equivalent amount of time as Group A. Both groups were instructed that they could do more than the weekly goal, but that full marks for participation were given upon completion of each of the four numbers.

Week 2-7. Subjects for both treatment conditions were given a deadline at 4:59 pm each week to complete their assignment. The first assignment due date on the first day of the second week, and the last assignment was due on the first day of the 8th week (during finals). Subject results were monitored by teachers, and additional reports on usage were provided by the researcher to the instructors at week four and seven. An open-door policy was instituted for subjects and instructors on any technical or other issues with English Central during this period. Since English Central automatically tabulates hours, words learned, videos watched, and speak points, teachers did not need to score student results, but were guided to understand the teacher tools and various reports English Central provides. Students were all required to participate fully in English Central as part of a homework grade, which was given weekly. Teachers accessed reports in both conditions (at least) weekly to ascertain whether the weekly benchmark was achieved.

Week 8. Subjects for all conditions were given the post-test during week 8. Any results past the deadline were discarded. Several students again complained of faulty connections to the phone number, and an attempt was made to provide additional access codes to a few. A report of these students is made in chapter 4.

Scoring

The access codes provided by Pearson Versant served as identification numbers and were used in both pre- and post-test environments, and tests were automatically scored (within minutes) by the computer system. Scoring occurs based on different rhythms and pronunciation patterns. The system identifies words used (content) and the pace, fluency, and pronunciation of the words used (manner). Statistical modeling built from previously captured and rated native and non-native speakers is then used in order to give a base measurement to the subject's speech.

This base measurement is further divided into four diagnostic sub scores: sentence mastery, vocabulary, fluency, and pronunciation. Sub scores are then weighted and calculated in order to produce an overall score. The course instructors provided the scores for the Pearson Versant to all participants.

Scores for the motivational questionnaire were also tabulated for each individual student. A student received scores for each of the twenty-seven Likert scale questions (one= low, five= high) based on the System Usability Scale (Albert & Tullis, 2008). These scores were tabulated to produce overall scores in one of three categories. Motivation, consisting of ten questions, was tabulated as the total of all ten questions (low score=ten, high=fifty). Usability, consisting of nine questions, was tabulated also (low score=nine, high=forty-five). General comfort with technology was tabulated as the total of five questions (low score=five, high=twenty-five). After controlling for gender, age, and language of origin, these three variables, overall usability (USETOTAL), overall motivation (MOTTOTAL), and overall comfort with technology (TECHCOMF) was used to report any shared variance with overall speaking proficiency.

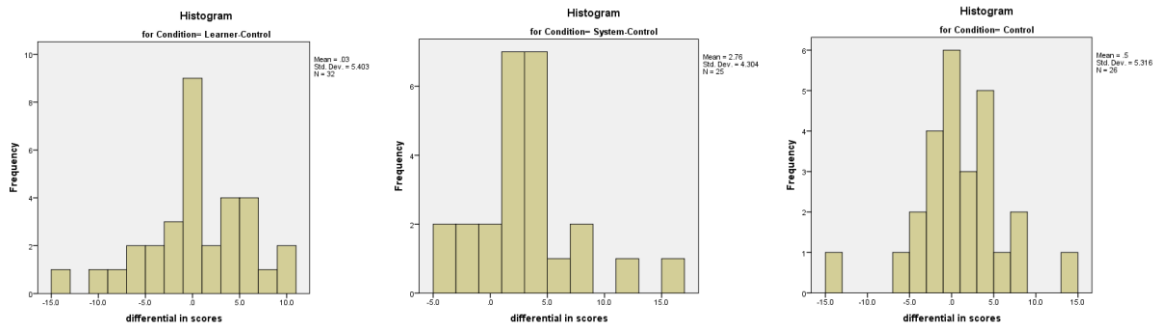
An additional survey measured teacher's response toward the online learning environment. This survey contained fourteen Likert Scale (1 = low, 5 = high) questions also based on the System Usability Scale (Albert & Tullis, 2008), and asked an additional four follow-up questions to ascertain teacher's future recommendations and overall feelings about the English Central environment.

CHAPTER 3—RESULTS

Assumptions

Tests to ensure equal variance were performed. First, variances of the learner-control (29.19), shared-control (18.52), and the control group (28.26) were compared using a ratio test. The largest group variance divided by the smallest group variance yields a result of 1.58 and demonstrated roughly equal variances. The Levene statistic confirmed this simple ratio test with a nonsignificant result of .791 ($p=.457$). Tests to determine normal distribution were also performed. The histograms (shown in Figure 3.1) demonstrate fairly normal distributions.

Figure 3.1: Histograms of learner, system, and control groups



Tests of normality (Kolmogorov-Smirnov and Shapiro-Wilk) also showed generally normal distributions save for one. The shared control score $D(25) = .187$, $p = .025$ does significantly deviate from normality. This corroborates the report from the histogram, which visually demonstrates a slight skew toward positive scores.

A look at the skewness corroborates the assumption of normality for the control group (-.287), and the learner group (-.512). Again, the shared control group is slightly, but not problematically, skewed (.969).

A final look at normality was performed by examining kurtosis. In this test, mesokurtic (a score of zero) indicates a normal distribution, whereas platykurtic (flat) scores would be

indicated by positive scores, and leptokurtic (peaked) by negative scores. Scores were as follows: learner control: .278, shared control: 1.836, and control: 1.7. None of the scores were in excess of two, so the distributions are within normal parameters.

Finally, several precautions were made to ensure that no violations of the assumption of independence were made. First of all, English Central records each and every line spoken by the student, thus ensuring that any use of English Central was performed by the subject. In addition, each student had an individual account that recorded their progress, and these accounts were created using passwords only the subjects themselves created and knew. Finally, since tests on the Pearson Versant were given through the use of access codes, each test was independently distributed. Furthermore, all tests were recorded in full, allowing a researcher to listen in on the conversation and ensure that the subject in question took the test. The researcher cross-referenced each pre-test score with a post-test score (164 tests in total) to ensure that subjects' voices were the same.

Primary Analysis

In the first analysis, two a priori orthogonal contrasts were used to compare the means of the learner, shared, and control group scores in speaking proficiency (see Table 3.1 on the next page). Effect size (Cohen's *d*) was calculated for any statistically significant differences. A description of the two contrasts follows:

Contrast 1: The first of two orthogonal pairwise comparisons compared the treatment groups to the control group. This corresponds to the first research question.

Contrast 2: The second orthogonal pairwise comparison compared the differences in means of the treatment groups themselves. This corresponds to the second research question.

Table 3.1: A Priori Orthogonal Contrasts

Contrast	Learner Control Group (LC)	Shared Control Group (SC)	Control Group (CG)
Contrast 1 (LC +SC vs CG)	½	½	-1
Contrast 2 (LC vs SC)	1	-1	0

As per design requirement for a priori orthogonal contrast coding, only k-1 contrasts (two) were used and both these contrasts sum to zero.

The shared, learner, and control groups demonstrated differing means but approximate standard deviations, as can be seen in the table below (Table 3.2). No significant difference was found for Contrast 1 between the treatment groups and the control on the learning measure, $t(80) = 0.745, p = .459$. For Contrast 2, there was a statistically significant difference between the shared- and learner control groups, $t(80) = 2.017, p = .047$, Cohen's $d = .56$.

Table 3.2 Mean Amount of Improved Speaking Fluency for Learner, Shared, and Control Conditions

	Speaking Score	
	M	SD
Shared Control	2.76	4.3
Learner Control	.031	5.40
Control	.500	5.31

Supplemental Analysis

Linear regressions, one-way ANOVA's, and independent sample t-tests were conducted to determine other factors that may contribute to student success on the English Central platform. Finally, follow-up data was collected to ascertain the presence of a teacher effect. Each of these analyses is now presented.

Linear Regression 1. The purpose of this regression was to determine whether, in addition to variance caused by the learner/system models, other possible variables in the English Central Platform could account for learning outcomes. These included total hours spent on English Central, the number of videos watched, amount of vocabulary learned, and the speaking points acquired.

In this regression, the first model (learner/shared control) was a statistically significant predictor of speaking improvement $F(1,50) = 4.12$, $p = .047$, $\Delta R^2 = .071$. In the second model, inclusion of total hours accounted for additional variance $F(1,50) = 3.75$, $p = .059$, $\Delta R^2 = .061$, as did the third $F(1,50) = 2.009$, $p = .162$, $\Delta R^2 = .032$, fourth $F(1,50) = 1.8$, $p = .186$, $\Delta R^2 = .028$, and fifth models $F(1,50) = .518$, $p = .475$, $\Delta R^2 = .008$. The final model was statistically significant $F(5, 50) = 2.769$, $p = .041$, $R^2 = .201$, accounting for 20 % of the total variance.

In addition to the regression, a one-way analysis of variance (ANOVA) was calculated with total hours spent as a dependent measure, and learner outcomes as the independent measure. The analysis was significant, $F(1, 57) = 2.364$, $p = .012$.

Another one-way analysis of variance (ANOVA) was calculated with number of videos watched as a dependent measure and learner outcomes as the independent measure. The analysis was also significant $F(1,56) = 3.83$, $p < .001$.

Linear Regression 2 and One-way ANOVA. A second regression sought to determine the amount of variance accounted for by the motivational survey. The survey was divided into three sections, with subsections on ease of use, motivation, and experience in technology. Student attitude was operationalized as the sum total of all three of these subsections.

In the first model, regression of usability (ease of use) was a statistically significant predictor of speaking improvement $F(1,50) = 7.465$, $p = .009$, $\Delta R^2 = .130$. In the second model, inclusion of motivation accounted for additional variance, but was not statistically significant $F(1,50) = .966$, $p = .331$, $\Delta R^2 = .017$. In the third model, the addition of tech experience also accounted for additional variance but was not statistically significant, $F(1,50) = .491$, $p = .487$, $\Delta R^2 = .009$. The final model was statistically significant $F(3, 48) = 2.943$, $p = .042$, $R^2 = .155$, accounting for 15% of the total variance.

In addition to a regression, a one way ANOVA with student attitude as a dependent measure and learner/shared control conditions as the independent measure was performed. While not reaching statistical significance ($p = .059$), there was a difference in means (learner control 71.4, shared control = 80.9).

Gender, First Language, and Teacher Effect. Additional ANOVAS were conducted to identify any possibly variance resulting from gender (Table 3.5) or first language (Table 3.6). Neither ANOVA yielded a statistically significant result. Gender was dummy coded (1 = female, 0 = male), and first language was dummy coded as well (Arabic = 0, Chinese = 1, Japanese = 2, Korean = 3, Portuguese = 4, Spanish = 5).

Table 3.5 One-Way Analysis of Variance Summary Table for the Effects of Gender on Speaking Scores

Source	Df	SS	MS	F	P
Between-group	1	3.031	3.031	.113	.737
Within-group	81	2166.969	26.753		
Total	82	2170.00			

Table 3.6 One-Way Analysis of Variance Summary Table for the Effects of Language on Speaking Scores

Source	Df	SS	MS	F	P
Between-group	5	116.044	23.209	.870	.505
Within-group	77	2053.956	26.675		
Total	82	2170.00			

One final ANOVA (Table 3.7), demonstrated a significant result. An analysis of variance showed that the teacher assigned to each student group had a significant effect on student scores $F(11, 71) = 2.681, MSE = 1533.10, p = .006$.

Due to this positive result, an additional inquiry was made to see if high levels of motivation among teachers might have resulted in high performance for students. Mean scores from the teacher motivation survey for teachers in shared and learner conditions were $M = 52.5, 55.25, SD = 7.04, 11.5$. This data demonstrated that teachers in the learner control treatment had had nearly identical scores compared to their shared control counterparts. This runs counter to the assumption that high levels of motivation among teachers, as operationalized by the motivational survey, should yield better learning scores for students.

Further inquiry into this data (see Table 3.7) shows that the student learning scores with the most positive teachers on the survey, are nearly identical to the scores of the least positive teachers ($M= 1.478, 1.449$). Based on these scores, no further statistical analysis was performed related to learning outcome and teacher motivation.

Table 3.7 Teacher Motivation and Student Speaking Scores by Learner and Shared Condition

Condition	Teacher ID	Student Speaking Score	Teacher Motivation Score
Learner	6	-2	57
	3	1.25	45
	2	-1.58	58
	7	4.429	61
Shared	1	.667	65
	4	6.833	46
	5	2.4	59
	12	-.286	40

CHAPTER 4: DISCUSSION AND IMPLICATIONS

Shared-Control Superior to Learner-Control

The most major finding of this study demonstrated that a shared control system was superior to that of a learner control system. The shared control system gave students a clear advantage in learning (2.76 point gain in shared control, compared to a .031 point gain in learner control, and .5 point gain in the control group). While this may initially appear to run counter from other studies such as Mayer and Chandler's (2001) experiment on the superiority of learner control, a cautious look would reveal otherwise. Mayer and Chandler's study demonstrated that learner control segments were more efficacious than a continuous presentation, thus giving rise to the concept of "segmenting" as a multimedia principle. In our particular study, both the learner control and shared control models gave students this type of control. The video presentations were each segmented and students in both conditions were allowed to pause, review, and slow down these segments. Thus, the segmenting principle was properly used in both treatment groups. However, the additional control of choosing the videos themselves was given only to the learner control group, and appears to have negated the positive effects present by a segmenting principle. Thus, while control of the video player was an advantage for those in the shared control group, that advantage disappeared and reversed when participants were given an additional control, thus making it clear that control over video selection proved too much for this student population.

In light of these findings, it would be accurate to state that video selection had a negative effect on student scores in speaking proficiency. This tends to agree with recent research on some of the negative impacts of choice in general. In the book, *Gamification by Design*, Zichermann and Cunningham (2010) state, "In brief, enough choice is good—too much choice is

bad...Give the [learner] just enough choice to engage him without overwhelming him” (p. 23). Thus, as some studies have confirmed (Corbalan, Kester, & van Merriënboer, 2009; Katz & Assor, 2007; Swaak & De Jong, 2000), a shared control model is often superior to a learner control model because it limits the amount of choice that students have. Iyengar makes the same conclusion, that while choice appears superficially good to most participants (see Ausburn 2011), too much choice confounds participants’ abilities to feel comfortable about the choices made. Thus, this current study serves as a warning to online designers and online learners: more choice does not always lead to better results. Iyengar shares a story about the problems of too much choice at a grocery store near Stanford University, and this story serves as a perfect metaphor for online choice:

We decided to do a little experiment, and we picked jam for our experiment... We set up a little tasting booth right near the entrance of the store. We there put out six different flavors of jam or 24 different flavors of jam, and we looked at two things: First, in which case were people more likely to stop, sample some jam? More people stopped when there were 24, about 60 percent, than when there were six, about 40 percent. The next thing we looked at is in which case were people more likely to buy a jar of jam. Now we see the opposite effect. Of the people who stopped when there were 24, only three percent of them actually bought a jar of jam. Of the people who stopped when there were six, well now we saw that 30 percent of them actually bought a jar of jam. Now if you do the math, people were at least six times more likely to buy a jar of jam if they encountered six than if they encountered 24 (2011, pg. 2).

While this story is presumably about consumer choices, Iyengar goes on to suggest that this applies to online choice in general. While online learners may feel that more choice is

always better, if you present too many choices to online participants, they are less likely to fully participate and are likely less motivated to make a selection. In the current study, it should be noted that while not statistically significant at the $p = .05$ level, there was a 9.49 point difference on the motivational survey ($p = .059$).

This goes back to the concept introduced by Katz and Assor (2007) that for choice to feel motivating, students must feel that they are autonomous learners. Thinking in those terms, it seems likely that students in the context of the current study may not have seen themselves as autonomous.

So why didn't these particular students find the additional autonomy liberating? In the semi-structured interviews, several students commented on the post-survey that the English Central website was too large, and that finding a video that was of an appropriate length, topic, and interest was not always easy. Some students also complained that while selecting videos on their own, they didn't realize the video was not a sufficient length until it was too late, and thus, they would have to watch an additional video in order to complete the required benchmarks. This corroborates studies that show that disorientation ensues because of the inability to navigate an online learning system (Scheiter & Gerjets, 2007).

In addition, it may be that without pairing the homework assignments to actual in-class assignments, the use of English Central felt superfluous—outside of the confines of the classroom itself. One student commented the following, “Why are we doing this? It has nothing to do with the class.” Regardless of the fact that the class itself was called “Listening/Speaking” and the tool itself was a listening/speaking tool, students had a hard time grasping how the two coincided because the videos they were selecting were unrelated to classroom topics.

Students in the learner control also had a tendency to choose videos that appeared in the top row of the selection grid, which corroborates the idea that students often rush to completion of the task rather than take advantage of the controls available to them (Cordova & Lepper, 1996).

In contrast, the shared control system provided carefully selected videos that tied to the topics of the classroom itself. In that light, students may have felt that the curriculum was especially designed for them, and gave them additional practice in vocabulary, content, and language level. This corroborates the view of ESL theorists such as Stephen Krashen (1985) that input must be modified to the level of the learner, and also strongly correlates with the view of many ESL practitioners who have long suggested that content itself should be structured in a way to increase interest and limit the number of linguistic forms (Kucer et al, 1995; Whitmore & Crowel, 1994). Furthermore, Brown (2001) demonstrates that in the field of ESL, ESL textbooks and courses are generally thematically presented, and thus, students who are used to having themes chosen for them may have found the idea of choosing their own themes unusual—even burdensome. In this sense, the pre-selection of content is more likely seen as the responsibility of the teachers, not the students.

In addition, some of the areas in which learner control is seen as superior to system control were negated by the fact that the shared control system allowed a number of items often understood as LC. For example, Clark, Nguyen, and Sweller (2006) shared the fact that LC becomes a tool that increases productivity when experienced learners are able to skip past already understood material. Since both the LC and SC models gave learners control over the video player, any positive learning gains caused by control over the video player would have occurred in both conditions.

One student, for example, stated, “I love English Central. I got to play with things. I could watch a video many times and I could slow things down. I also worked on a sound or vocabulary item as much as I wanted. If I had many problems, I could get help with the dictionary.” Here the student focused not only on the various features of the player itself (the ability to slow down the rate of speech, the ability to rewatch a video, or listen to each phoneme in a particularly difficult word), she also emphasized the idea of “play.” Here it can be seen how the concept of being able to navigate, move outside the lines so to speak, gave her a sense of autonomy that was motivating. This seems to corroborate the view that Judy Kay (2001) suggests for defining learner control as one for students to “actively construct their own understanding of a learning domain” (p. 114).

Some studies have suggested that ESL students may not be good candidates for autonomous learning in general, whether shared or learner (Heinle, 2003; Iyengar & DeVoe, 2003; Oishi, 2000). This study, and the current trend in U.S. ESL students, is heavily influenced by the influx of Middle Eastern students. Thus, this study was an opportunity to demonstrate how current populations react to both shared and learner control conditions. What was interesting to note is that a number of Middle Eastern men, in particular, showed resistance to the online tool, and in fact, several conversations ensued that demonstrated a feeling that online instruction was something that “could be done at home.” In this light, it appears that there was a general preference for face-to-face instruction, and a belief that a teacher should assume control of the students’ learning. This belief--that a teacher should have control--is corroborated by Hofstede (2015) who suggests that Middle Eastern culture often assumes that power is distributed unequally, and that “a collectivist culture [such as Syria, Iraq, and the UAE], fosters strong relationships where everyone takes responsibility for fellow members of a group” (1). In this

light, it may be seen by some Middle Eastern students that teachers are relinquishing their role, and thus, the English Central tool might be seen by students as a way for a teacher to abdicate responsibility.

A final note is necessary to elaborate on this finding. While a 3-point gain on an 80-point test may be rightly understood as a small change, it is also important to concede that as students become more and more advanced in their language learning, smaller gains become possible. Thus, while very large gains might be made in basic and intermediate levels of English, smaller gains are typical among advanced learners.

Supplemental Findings

Finding 2: The Tech Awareness Effect

A minor finding of this study demonstrated that certain students outperformed others based on the tech savviness they likely came into the study with previously. The second linear regression showed a clear learning advantage among those learners who reported high scores on usability (ease of use) of the English Central platform. This indicates that students who had comfort with the online format and tools presented by English Central improved their speaking more than those who may have found the website less user friendly. Thus, language skills improved as a result of higher online and technology skills, whereas gender, language, and even students who worked hard (based on total number of hours, total speak points, total vocabulary learned), received no statistical advantage.

Thus, it seems clear that a successful student in the English Central environment is one that can intuitively understand the English Central platform, and is able to navigate it with more available cognitive resources than his or her fellow counterparts. This also corroborates past research, which suggests that disorientation can occur when students do not intuitively

understand an online learning system, and that available cognitive resources can be exhausted when learners are unfamiliar with online learning (Clarebout & Vandewaetere, 2011, Hasler, Kersten, & Sweller, 2007; Scheiter & Gerjets, 2007).

Finding 3: The Teacher Effect

One last effect worthy of discussion is the fact that there was a statistically significant difference among student scores by teacher. It was at first posited that this statistically significant result might be tied to a teacher's positive or negative view of English Central itself. In other words, if the teacher really loved English Central, perhaps it bled into how the students performed.

However, an additional inquiry proved that teachers' views, in both conditions, were higher in the learner condition, and those students fared worse. And further inquiry showed that of the eight teachers in both learner and shared conditions, the average learning gain of students with the most positive four teachers on the survey are nearly identical to those of the four least positive ($M = 1.478, 1.449$). This strengthens the argument that shared control is superior to learner control, because it demonstrates that such gains are independent of a teacher's perception of the tool.

However, if teacher perceptions of English Central didn't create the difference, then what else might have created this teacher effect? Interviews were conducted post-survey to see if any other factors might have proven beneficial or harmful to student scores.

First, a look at the numbers revealed that student scores were highly variable from group to group, and that a single learner score might change each class considerably. Thus, while variability across each condition was equally distributed, that variability was not as equally

distributed across teacher groups. So the teacher effect, in this view, is most likely caused by this fact.

Other possibilities might include what teachers actually did or did not do within the confines of their own classroom. However, since the school is heavily controlled by the same textbooks and objectives, this does not appear to be the likely factor. Other considerations such as years of teaching also did not prove to show any significant result.

Limitations

The student population at the American English and Culture Program is fairly representative of the current U.S. ESL population, and as one of the largest ESL schools in the country, the robust numbers certainly help to ensure sound sampling practices. However, it is true that throughout the United States in the last few years, there has been a large influx in the Middle Eastern population. This is reflected in the current study with fifty-five of the eighty-three participants representing the Middle East. Since international student populations have traditionally changed over the years, it may be difficult to generalize the results of this study to future populations, although certainly it should generalize well to current U.S. trends. Another trend, especially among the Middle Eastern populations, is to send a disproportionate amount of men to women. This is also reflected in the study, with twenty-one women represented overall, and only five of those coming from the Middle East.

Another limitation is the amount of time spent studying in the program. This program is particularly intensive compared to other programs, lasting only eight weeks. This may have limited the ability to find a stronger learning trend, and find a trend between LC and SC conditions compared to the control group.

Conclusions

Overall, the use of English Central was seen as being as effective at increasing student scores as a control group given equal timed treatment, and the shared control condition was clearly superior to the learner control group. Based on the fact that English Central provides a larger amount of practice than a teacher can logistically provide, this may be an attractive offering for administrators, teachers, and students who wish to improve speaking proficiency. Furthermore, English Central provides more feedback and instant feedback on language instruction, which is one of the fundamental difficulties of teaching speaking. Finally, since this feedback becomes available to a teacher, the English Central platform also serves as a guide for teachers to instruct and alter curriculum according to student needs.

A cautious note should follow. This research should not be seen as an open endorsement of English Central, and it should be noted that this research demonstrated the need to consider the following precautions before using the English Central platform. First of all, English Central has a cost. This research was not designed to provide any information on whether or not the English Central platform is cost effective compared to other, perhaps less expensive methods. In the experience of the language school in question (American English and Culture Program), the cost of English Central, in general, has been deemed no more than a single textbook in a class and was a properly priced tool for consideration.

Another consideration is the fact that technology can and does often fail. While most students were successful in using the platform, some students were unfamiliar or unequipped to solve simple tech issues, such as the process of allowing English Central access to the internal microphone/speaker on each laptop. Since a number of laptops or computers have differing requirements, and since many students were unfamiliar with the system, caution should be made

in ensuring that students are well equipped with handling online difficulties. Since teachers were often the de facto technical support for students, this also may cause problems.

Some teachers reported not wanting to help students understand the tool, especially since the teachers themselves were not familiar with some of the more technical aspects of the platform. This corroborates the idea found by Peng (2010) that there is often a lack of instructor knowledge to act as technical support. In this study there was a tendency for teachers to “hand over” any difficulties a student was having to the researcher or English Central support team, even though the difficulties were well within the training they received. This apparent impatience toward the system might be seen in view of the fact that teachers don’t perceive themselves as technical experts, and that anything having to do with such issues is met with a certain amount of resistance.

Future Directions

No doubt with the proliferation of online learning tools, researchers will continue to verify or dispute their use in educational circles. Future directions of this research would do well to consider how to best use English Central and other such tools in different contexts than the one presented here.

One useful direction would be to ascertain whether or not the tool might be best used within the classroom itself. While this study’s focus was on the use of English Central as a homework tool, it may prove beneficial or more beneficial to consider it as an in-class assignment. Since some students in the learner control condition in this study suggested that the homework tool felt superfluous, it may be that a focus of English Central within the class would prove more beneficial. Furthermore, it would be interesting to examine if the same kind of

disorientation that occurred with students using a tool at home would occur with a teacher and other learners present.

Another useful direction would be to determine if the use of English Central improved general English proficiency. This particular study demonstrated that there was improvement in speaking proficiency, as operationalized by the Pearson Versant, but did not generalize to overall English proficiency. Several common ESL tests such as the TOEFL and IELTS tests would serve as good measures for a future study. Does English Central have an ability to increase scores on general English proficiency tests (and their respective subsections)?

Also, this study underrepresented Asian and Latin communities. A study that was more robust might be able to demonstrate differing results based on these communities. Since learner autonomy seems to be one of the key aspects of whether or not learner and/or shared conditions show learning gains, it would be interesting to see if such differences exist across cultures. In addition, since ease of use (usability) also indicated a learning gain, it would be interesting to note which cultural groups might be more tech savvy as well. An alternate study, in fact, might simply look at capturing students with general proficiency in online learning tools, and link familiarity of those tools to the ability to perform well on English Central. Finally, while certain results here did not attain statistical significance, it appears that some were trending toward significance. A replication study with greater power would help to ascertain whether the trends toward significance are ultimately met.

REFERENCES

- Allen, E., & Seaman, J. (2008). Staying the course: online education in the United States 2008. *The Sloan Consortium. Babson Survey Research Group*. Retrieved June 26, 2014, from http://www.sloan-c.org/publications/survey/pdf/staying_the_course.pdf
- Anderson, J. R., Corbett, A. T., Koedinger, K. R., & Pelletier, R. (1995). Cognitive tutors: Lessons learned. *The Journal of the Learning Sciences*, 4(2), 167–207.
- Anderson, T. (2008). *Theory and practice of online learning*. Edmonton: AU Press.
- Au, S. (1988). A critical appraisal of Gardner's social-psychological theory of second language (L2) learning. *Language Learning*, 38: 75-100.
- Ausburn, L.J. (2004). Course elements most valued by adult learners in blended online education environments: An American perspective. *Educational Media*, 41 (4), pp. 327-337.
- Bailey, K.M., & Savage, L. (1995). *New ways in teaching speaking*. Alexandria, VA: TESOL.
- Borko, H., Whitcomb, J., & Liston, D. (2009). Wicked problems and other thoughts on issues of technology and teacher learning. *Journal of Teacher Education*, 60: 3-7.
- Brown, H. D. (2001). *Principles of language learning and teaching* (2nd ed.). White Plains: Addison Wesley Longman, Inc.
- Brusilovsky, P., Kobsa, A., & Nejdl, W. (2007). *The adaptive web: Methods and strategies for web personalization*. Heidelberg: Springer-Verlag.
- Canale, M. & Swain, M. (1980). Theoretical bases of communicative approaches to second language testing and teaching. *Applied Linguistics*, 1(1): 1-47.
- Celce-Murcia, M. (Ed.) (2001). *Teaching English as a second or foreign language* (3rd ed.) Boston: Heinle & Heinle.
- Clarebout, G. & Vendewartere, M. (2011). Can instruction as such affect learning? The case of learner control. *Computers & Education*, 57, 2322-2332.2
- Clark, R.C., Nguyen, F., and Sweller, J. (2006). *Efficiency in learning: evidence-based guidelines to manage cognitive load*. San Francisco: Pfeiffer.
- Collis, B., De-Boer, W. & Slotman, K. (2001). Feedback for web-based assignments. *Journal of Computer Assisted Learning*, 17, 306–313.
- Corbalan, G., Kester, L., & van Merriënboer, J. J. G. (2009). Combining shared control with variability over surface features: Effects on transfer test performance and task involvement. *Computers in Human Behavior*, 25, 290–298.

- Cordova, D. I., & Lepper, M. R. (1996). Intrinsic motivation and the process of learning: Beneficial effects of contextualization, personalization, and choice. *Journal of Educational Psychology*, 88, 715–730.
- Cucchiarini, C., Strik, H., & Boves, L. (1997). Using speech recognition technology to assess foreign speakers' pronunciation of Dutch. In J. Leather & A. James (Eds.), *New Sounds 97: Proceedings of the Third International Symposium on the Acquisition of Second-Language Speech*, (61-68): Klagenfurt: University of Klagenfurt.
- Derwing, T. M., & Munro, M. J. (2005). Second language accent and pronunciation teaching: A research-based approach. *TESOL Quarterly*, 39, 379-398.
- Ellis, R. (2001). *The study of second language acquisition*. Oxford: Oxford University Press.
- Ellis, R. (2012). *The study of second language acquisition* (2nd ed). Oxford: Oxford University Press.
- Ellis, R. A., Marcus, G. G., & Taylor, R. R. (2005). Learning through inquiry: Student difficulties with online course-based material. *Journal of Computer Assisted Learning*, 21(4), 239-252.
- EnglishCentral (2013). 100 millionth line spoken on English Central! *English Central Official Blog*. Retrieved December 2, 2013, from <http://blog.englishcentral.com/>.
- English Central (2015). What is the pedagogy behind English Central? *English Central*. Retrieved January 5, 2015, from <http://pt.englishcentral.com/help?forum=365248&article=20641697>.
- Engwall, O., & Balter, O. (2007). Pronunciation feedback from real and virtual language teachers. *Computer Assisted Language Learning*, 20(3), 235-262.
- Freeman, D.E., Freeman Y.S. (1998) *Essential Linguistics*. Portsmouth, NH: Heinemann.
- Gardner (1980). On the validity of affective variables in second language acquisition: Conceptual, contextual, and statistical considerations. *Language Learning*. 30: 255-270.
- Gardner, R., & Lalonde, R. (1985). Social factors in second language attrition. *Canadian Journal of Psychology*, 2:1-15.
- Gardner, R., & MacIntyre, P. (1991). An instrumental motivation in language study: Who says it isn't effective? *Studies in Second Language Acquisition*, 13: 57-72.
- Gass, S.M., A. Mackey, M.J. Alvarez-Torres, and M. Fernandez-Garcia. (1999). The effects of task repetition on linguistic output. *Language Learning*, 49 (4): 549-581.

- Goodyear, P., Salmon, G., Spector, J. M., Steeples, C. & Tickner, S. (2001). Competencies for online teaching: A special report. *Educational Technology Research and Development*, 49(1), 65-72.
- Hasler, B. S., Kersten, B., & Sweller, J. (2007). Learner control, cognitive load and instructional animation. *Applied Cognitive Psychology*, 21, 713–729.
- Heffernon, N. & Johnson, A. (2006). The short readings project: A CALL reading activity utilizing vocabulary recycling. *Computer Assisted Language Learning*, 19(1), 63-77.
- Hofstede, G. (2015). The Hofstede Center: Country Comparison. Retrieved from <http://geert-hofstede.com/syria.html>.
- Iyengar, S. (2011, Nov) Sheena Iyengar: How to make choosing easier [Video file] Retrieved from http://www.ted.com/talks/sheena_iyengar_choosing_what_to_choose?language=en
- Kalyuga, S. (2008). Implications of expertise reversal effect for adaptive multimedia learning. In J. Luca, & E. Weippl (Eds.), *Proceedings of World Conference on educational multimedia, hypermedia and Telecommunications*, pp. 4167–4174. Chesapeake, VA: AACE.
- Katz, I., & Assor, A. (2007). When choice motivates and when it does not. *Educational Psychology Review*, 19, 429–442.
- Kay, J. (2001). Learner control. *User Modeling and User-Adapted Interaction*, 11, 111–127.
- Kinzie, M. B. (1990). Requirements and benefits of effective interactive instruction: Learner control, self-regulation, and continuing motivation. *Educational Technology Research and Development*, 38, 5–21.
- Kinzie, M. B. and Sullivan, H.J. (1989) Continuing motivation, learner control and CAI. *Educational Technology Research and Development*, 37(2), 5–14.
- Krashen, S.D. (1994). The input hypothesis and its rivals. *Implicit and Explicit Learning of Languages*, Academic Press. London: Ellis, N, pp. 45–77.
- Kucer, S. B., Silva, C., Delgado-Larocco, E. (1995). *Curricular conversations: Themes in multilingual and monolingual classrooms*. York, ME: Stenhouse.
- Lawless, K.A., Brown, S.W. (1997) Multimedia learning environments: Issues of learner control and navigation. *Instructional Science*, 25, 117–131.
- Lee, S. and Lee, Y. H. K. (1991). Effects of learner-control versus program-control strategies on computer-aided learning of chemistry problems: For acquisition or review? *Journal of Educational Psychology*, 83(4): 491-498.

- Li, X. & Soh, L. (2003). *A literature review on learner control strategies in software tutoring systems*. University of Nebraska at Kearney.
- Maehr, M. L. (1976). Continuing motivation: An analysis of a seldom considered educational outcome. *Review of Educational Research*, 46, 443-462.
- Mitrovic, A., Koedinger, K.R., Martin, B. (2003). A comparative analysis of cognitive tutoring and constraint-based modeling. *Proceedings of the ninth international conference on user modeling*, Springer-Verlag, pp. 313–322.
- Nation, I.S.P. (1990). *Teaching and learning vocabulary*. New York: Heinle & Heinle.
- Neri, A., Cucchiarini, C., & Strik, H. (2008). The effectiveness of computer-based speech corrective feedback for improving segmental quality in L2 Dutch. *ReCALL*, 20(2), 225-243.
- Parsad, B., Lewis, L., & Tice, P. (2008). Distance Education at Degree-Granting Postsecondary Institutions: 2006–07. *National Center of Education Statistics*. Retrieved June 26, 2014, from <http://nces.ed.gov/pubs2009/2009044.pdf>
- Peng, S. (2010). The implementation of online learning for ESL programs: Factors and perspectives. *Dissertation, University of Southern California*.
- Perkins, D. N. (1985). The fingertip effect: How information-processing technology shapes thinking. *Educational Researcher*, 14, 11–17.
- Precoda, K., Halverson, C. A., & Franco, H. (2000). *Effects of speech recognition-based pronunciation feedback on second-language pronunciation ability*. Paper presented at the InSTILL. Retrieved from <http://www.speech.sri.com/people/hef/papers/InstillUserStudy.pdf>
- Reeves, T. C. (1993). Pseudoscience in instructional technology: The case of learner control research. *Proceedings of Selected Research and Development Presentations at the Convention of the Association for Educational Communications and Technology*, 15(1), 820-831.
- Riggenbach and Lazaraton (2001). In Celce-Murcia, M. (Ed.). *Teaching English as a second or foreign language* (3rd ed.) Boston: Heinle & Heinle.
- Robinson, C. C., & Hullinger, H. (2008). New benchmarks in higher education: Student engagement in online learning. *Journal of Education for Business*, 84(2), 101-108.
- Sauro, J., and Lewis, J.R. (2012). When designing usability questionnaires, does it hurt to be positive? *In Proc. CHI 2011*, 2215-2223.
- Scheiter, K. & Gerjets P. (2007). Learner control in hypermedia environments

- Educational Psychology Review*, 19, pp. 285–307.
- Seferoglu, G. (2005). Improving students' pronunciation through accent reduction software. *British Journal of Educational Technology*, 36(2), 303-316.
- Steinberg, E. R. (1989). Cognition and learner control: A literature review, 1977-1988. *Journal of Computer-Based Instruction*, 16(4): 117-121.
- Swaak, J., de Jong, T. (2001). Learner vs. system control in using online support for simulation-based discovery learning. *Learning Environments Research*, 4, 217–241.
- VanLehn, K., Lynch, C., Schultz, K., Shapiro, J.A., Shelby, R.H., Taylor, L. (2005) The Andes physics tutoring system: Lessons learned. *International Journal of Artificial Intelligence in Education*, 15(3), 147–204
- Vansteenkiste, M., Zhou, M., Lens, W., & Soenens, B. (2005). Experiences of autonomy and control among Chinese learners: Vitalizing or immobilizing? *Journal of Educational Psychology*, 97, 468–483.
- Whitmore, K.F., & Crowel, C.G. (1994) *Inventing a classroom: Life in a bilingual whole language learning community*. York, ME: Stenhouse.
- Williams, M. D. (1996). Learner-control and instructional technologies. In D. H. Jonassen (Ed.), *Handbook of research for educational communications and technology* (pp. 957–982). New York: Simon & Schuster Macmillan.
- Wilson, G. and Stacey, E. (2003). Online interaction impacts on learning: Teaching the teachers to teach online. In G. Crisp, D. Thiele, I. Scholten, S. Barker and J. Baron (Eds), *Interact, Integrate, Impact. Proceedings 20th Annual Conference of the Australasian Society for Computers in Learning in Tertiary Education*, 541-551.
- Yarbus, A. L. (1967), *Eye movements and vision*, New York: Plenum.
- Zichermann, G., Cunningham, C. (2011). *Gamification by Design: Implementing Game Mechanics in Web and Mobile Apps*, Canada: O'Reilly Media.

APPENDIX A

ENGLISH CENTRAL VIDEOS IN SHARED CONTROL MODEL

English Central Websites for Advanced 1 L/S

CONTEMPORARY TOPICS

- Unit 1: Communication Studies (Slang/Language change) (TOTAL= 9:00min)
 - <http://www.englishcentral.com/video/13064/the-history-of-english-chapter-9-internet-english> (How internet produced language change Chapter 9)
 - <http://www.englishcentral.com/video/11464/voice-activated-elevator-they-dont-do-scottish-acc> (Trying to use different accents to operate a voice detecting elevator)
 - <http://www.englishcentral.com/video/11178/phrasal-verbs-and-idioms-for-negotiating> (Business Idioms)
 - <http://www.englishcentral.com/video/15590/successful-negotiation-tone-language-and-word-choi> (learning how to choose words wisely when negotiating)
- Unit 2: Child Psychology (Children w/special talents) (TOTAL= 10:01min)
 - <http://www.englishcentral.com/video/10988/the-baby-map-genius> (Child good at maps)
 - <http://www.englishcentral.com/video/16994/students-create-flight-simulator> (High School students create flight simulator)
 - <http://www.englishcentral.com/video/17023/pain-is-life> (Shaolin monk trained as a child to not feel pain)
 - <http://www.englishcentral.com/video/12619/showing-off-hidden-talent> (Everyone is unique)
 - <http://www.englishcentral.com/video/15417/the-linguistic-genius-of-babies-3> (A study about how babies learn so quickly)
 - <http://www.englishcentral.com/video/19207/bill-gates-10000-hours-and-a-lifetime-of-fanaticis> (Bill Gates talking about Gladwell's theory)
- Unit 3: Sociology (Social Status/Lifestyles) (TOTAL= 9:82min)
 - <http://www.englishcentral.com/video/13413/can-i-be-your-friend> (Socializing as if on Facebook and twitter)
 - <http://www.englishcentral.com/video/17111/the-power-of-words> (Bullying)
 - <http://www.englishcentral.com/video/12491/give-me-the-noblesse-not-the-oblige> (Noblesse not Oblige)
 - <http://www.englishcentral.com/video/11846/diet> (Celebrities being thin)
 - <http://www.englishcentral.com/video/15683/dorobo-people-one-womans-choice> (Woman living in rural Tanzania misses the city life)
 - <http://www.englishcentral.com/video/16214/life-among-the-dead> (Living in a Cemetery)
- Unit 4: Business (Global Marketing) (TOTAL=8:77 min)
 - <http://www.englishcentral.com/video/19583/smart-toys-a-new-global-market-trend> (Smart toys)
 - <http://www.englishcentral.com/video/10402/presentations-marketing> (Presenting)
 - <http://www.englishcentral.com/video/16946/pepsi-commercial-a-funny-job-interview> (Pepsi advertisement)
 - <http://www.englishcentral.com/video/10218/iphone-check> (iphone advertisement)
 - <http://www.englishcentral.com/video/10543/what-is-sixthsense> (portable surface)

- <http://www.englishcentral.com/video/16105/us-travel-demand-for-chinese-tourists> (Chinese hotels in U.S)
- <http://www.englishcentral.com/video/11917/communication> (communication)
- <http://www.englishcentral.com/video/10274/starbucks-business-model> (Starbuck's business model)
- Unit 5: Cognitive Psychology (Memory Improvement) (TOTAL= 8.86min)
 - <http://www.englishcentral.com/video/14766/crime-investigations-making-faces> (Facial recognition)
 - <http://www.englishcentral.com/video/10699/ginkgo-biloba-ineffective-in-preventing-cognitive> (Pill that improve Memory in elderly)
 - <http://www.englishcentral.com/video/11232/remembering-memories> (Different types of memories)
 - <http://www.englishcentral.com/video/20409/clenching-fists-boosts-memory> (Clenching your fist & smelling rosemary improves your memory)
 - <http://www.englishcentral.com/video/19213/memories-arent-lost-theyre-somewhere> (Man uses facebook to regain memories)
- Unit 6: Anthropology/Biology (Love in Film) (TOTAL= 9.21min)
 - <http://www.englishcentral.com/video/20261/the-meaning-of-love> (Love in advertising)
 - <http://www.englishcentral.com/video/11870/your-ideal-type> (What is your ideal type?)
 - <http://www.englishcentral.com/video/11619/true-love-in-romantic-movies> (True Love in Romantic Films)
 - <http://www.englishcentral.com/video/17051/toxic-attraction-versus-real-love> (difference between love and toxic attraction)
 - <http://www.englishcentral.com/video/19818/love-knows-no-distance> (Love in advertising)
 - <http://www.englishcentral.com/video/16017/kids-talk-about-true-love> (Kids Talk about True love)
- Unit 7: Astronomy (Space missions) (TOTAL= 8.78min)
 - <http://www.englishcentral.com/video/11974/space-travel> (Astronaut requirements)
 - <http://www.englishcentral.com/video/12377/vacation-in-space> (Vacation in Space)
 - <http://www.englishcentral.com/video/10483/the-big-bang-theory> (Big Bang Theory)
 - <http://www.englishcentral.com/video/10532/new-images-from-deep-space> (images of Space)
 - <http://www.englishcentral.com/video/18173/neil-armstrong-a-symbol-of-accomplishment> (Neil Armstrong bio)
 - <http://www.englishcentral.com/video/10714/the-internet-how-it-all-started> (How space missions helped create the internet)
 - <http://www.englishcentral.com/video/20641/chinese-astronaut-to-give-lecture-from-space>
- Unit 8: Political Science (Surveillance jobs) (TOTAL= 8.94min)

- <http://www.englishcentral.com/video/11749/trespasser-calls-911-on-himself> (Man breaks in house and calls 911 on himself)
- <http://www.englishcentral.com/video/12289/meet-the-facebook-safety-team> (Facebook Safety)
- <http://www.englishcentral.com/video/17089/security-breaches-in-london-focus-attention-on-oly> (Security at the Olympics)
- <http://www.englishcentral.com/video/12423/workplace-privacy-forget-about-it> (Surveillance videos at work)
- <http://www.englishcentral.com/video/20452/voa-60-usa-newspapers-name-the-source-of-nsa-leaks> (Edward Snowden reveals how the U.S. government spies on your phone calls)
- <http://www.englishcentral.com/video/11954/mistakes> (Accidentally stealing)
- <http://www.englishcentral.com/video/11027/dont-trust-me> (People are too trusting)
- Unit 9: Linguistics (Animal communication) (TOTAL= 9:30min)
 - <http://www.englishcentral.com/video/18536/monkey-waiters> (Monkey waiters)
 - <http://www.englishcentral.com/video/10951/babies-pick-up-language-melodies-in-the-womb> (Learning language begins in the womb)
 - <http://www.englishcentral.com/video/10978/hitch> (Body language)
 - <http://www.englishcentral.com/video/18566/linguistics-as-a-scientific-study> (Branches of linguistics)
 - <http://www.englishcentral.com/video/11838/guide-dogs> (what guide dogs do)
 - <http://www.englishcentral.com/video/11937/the-ultimate-dog-tease> (silly viral video of a man talking to his dog)
 - <http://www.englishcentral.com/video/18516/never-underestimate-cats> (commercial about cats' love of milk)
 - <http://www.englishcentral.com/video/11799/pets> (pet psychics)
- Unit 10: Economics (Money/Speculating on how money will change) (TOTAL= 8.65min)
 - <http://www.englishcentral.com/video/18952/money-can-change-everything> (Is money good or bad?)
 - <http://www.englishcentral.com/video/10231/do-avatars-make-money> (Need to work to make money)
 - <http://www.englishcentral.com/video/15419/eurozone-economic-crisis> (The Euro)
 - <http://www.englishcentral.com/video/12322/talking-about-the-economy> (Money Fluctuation)
 - <http://www.englishcentral.com/video/13358/apple-has-more-money-than-the-us-government> (Apple has more money than the government)
 - <http://www.englishcentral.com/video/19196/saving-money-by-using-coupons> (Saving money with coupons)
 - <http://www.englishcentral.com/video/14602/inflation-1> (Inflation Part 1)
 - <http://www.englishcentral.com/video/14623/inflation-2> (Inflation Part 2)
- Unit 11: Biology (Extending human life) (TOTAL= 8:88min)
 - <http://www.englishcentral.com/video/12445/judgment-day> (Quotes on the fear of death)

- <http://www.englishcentral.com/video/12173/the-power-of-smiling> (Living longer by smiling)
- <http://www.englishcentral.com/video/12575/die-another-day-longevity> (Positives and Negative of living longer)
- <http://www.englishcentral.com/video/11849/plastic-surgery> (Plastic Surgery isn't bad)
- <http://www.englishcentral.com/video/11182/smart-exercise> (Exercising improves brain development)
- <http://www.englishcentral.com/video/19035/if-kids-had-more-time> (humans life expectancy has gone down 5 years)
- Unit 12: Sociology (Marriage) (TOTAL= 11:06min)
 - <http://www.englishcentral.com/video/11815/inside-the-royal-wedding-how-kate-met-william> (Prince William and Kate)
 - <http://www.englishcentral.com/video/11536/a-couple-for-63-years-recalls-first-date> (Couple married 63 years – not love at first site)
 - <http://www.englishcentral.com/video/10756/wedding-dress> (Low marriage statistics in France)
 - <http://www.englishcentral.com/video/11794/relationships> (Give and Take in a marriage)
 - <http://www.englishcentral.com/video/17872/how-to-pull-off-a-surprise-marriage-proposal> (shows how to be creative in proposing)
 - <http://www.englishcentral.com/video/13472/first-gay-marriages-held-in-new-york> (Gay Marriage)
 - <http://www.englishcentral.com/video/16646/what-you-dont-know-about-marriage-3> (Things that can ruin your marriage)

APPENDIX B

ENGLISH CENTRAL SURVEY FOR LEARNER AND SHARED CONTROL PARTICIPANTS AND ENGLISH CENTRAL SURVEY FOR TEACHERS

AECP's EnglishCentral Survey

Name: _____

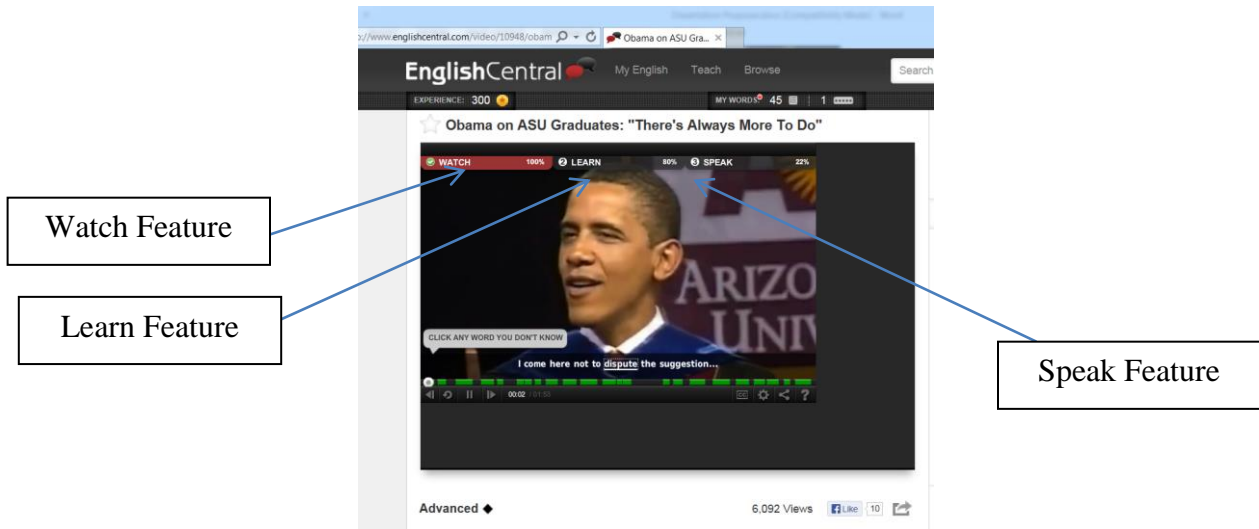
(Your answers will not be shared with your teachers)

PART 1: For each of the following statements, mark one box that best describes your reaction to the website *today*.

	Strongly Disagree		Strongly Agree		
1. I think that I would like to use this website frequently.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. I found this website unnecessarily complex.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. I think that I would need help to be able to use this website.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. I found this website very awkward/confusing to use.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. I would imagine most people would learn to use this website very quickly.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. I feel very confident using this website.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. I needed to learn a lot of things before I could begin with this website.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. I enjoyed using this website.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. I would recommend this website to a friend, classmate, or family member.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. The quality of the videos were very good.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11. I will keep studying with English Central after my class ends.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12. I was satisfied with customer service at English Central.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13. The amount of time given to complete English Central assignments was enough.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14. English Central helped me understand my textbooks.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Part 2 (Please see other side)

PART 2: For these next questions, refer to the picture below.



	Strongly Disagree		Strongly Agree	
15. The watch feature helped me learn English.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16. The learn feature helped me learn English.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
17. The speak feature helped me learn English.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
18. I liked to choose videos that were interesting to me.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
19. I often chose videos that the teacher did not require.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
20. I enjoyed this class (course).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
21. The technology in this course was good.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
22. This course helps me improve outside of class.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
23. This course will help me for a long time.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
24. I like courses with technology.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
25. I have used websites to learn English in the past.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
26. I am comfortable using English Central Technology	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
27. I wish I knew more about how to use technology.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

PART 3: Demographics

1. What is your age?
2. What is your first language?
3. What is your gender? (male or female)

Explain your experience using English Central (you may use the back of this paper).

AECP's EnglishCentral Teacher Survey

Section Taught: _____

How many times have you used English Central in the class prior to the study? _____

PART 1: For each of the following statements, mark one box that best describes your reaction to the website.

	Strongly Disagree				Strongly Agree
I think that I will use this website frequently.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I find this website unnecessarily complex.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I think that I would need help to continue using this website.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I find this website very awkward/confusing to use.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I imagine most students would learn to use this website very quickly.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I feel very confident using this website.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I needed to learn a lot of things before I could begin with this website.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I enjoy using this website.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I would recommend this website to a colleague	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The quality of the videos are very good.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I will keep using English Central.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I was satisfied with customer service at English Central.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The amount of time given to complete English Central assignments was sufficient.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
English Central helped me use my textbooks.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Part 2 (Please see other side)

PART 2: Write down your responses in the space provided.

15. In addition to English Central homework, how many hours of homework did you give each week?

16. How is English Central particularly suited to English language learning?

17. How could English Central be improved to better English language learning?

APPENDIX C

PEARSON VERSANT TEST SAMPLE ITEMS

Versant Sample Items

Part A. Reading. Please read the following sentences as you are instructed.

(audio) Please read sentence 6.

(sample response) They played loud music all night while she was trying to sleep.

(audio) Now read sentence 8.

(sample response) He wants to move out of the neighborhood.

Part B. Repeat. Please repeat each sentence that you hear.

(audio) When it is cold, I don't go out.

(sample response) When it is cold, I don't go out.

(audio) It is going to rain tomorrow, isn't it?

(sample response) It is going to rain tomorrow, isn't it?

Part C. Questions. Now please just give a simple answer to the questions.

(audio) Would you get water from a bottle or a newspaper?

(sample response) A bottle.

(audio) Are oranges or bananas more like fruits or vegetables?

(sample response) Fruits.

Part D. Sentence Builds. Now please rearrange the word groups into a sentence.

(audio) Was reading. My mother. Her favorite magazine.

(sample response) My mother was reading her favorite magazine.

(audio) We didn't. The movie. Enjoy.

(sample response) We didn't enjoy the movie.

(audio) Your books. Leave. At home.

(sample response) Leave at home the book.

Part E. Story Retelling. You will hear three brief stories. Each story will be spoken once followed by a beep. When you hear the beep, you will have thirty seconds to retell the story in English. Try to retell as much of the story as you can including the situation, characters, actions, and ending. You will hear another beep at the end of the thirty seconds.

(audio) Bill wanted to watch TV when he got home. His father said that first he had to walk the dog. Then he had to clean his room. After he finished his chores, he could watch TV.

(sample response) Bill is going home and he...and the dog...and his room is cleaning.

Part F. Open Questions. You will hear two questions about family life or personal choices. Each question will be spoken twice, followed by a beep. When you hear the beep, you will have forty seconds to answer the question. You will hear another beep at the end of the forty seconds.

(audio) Given a choice, would you like to live in a large city or a small town. Please explain why.

(sample response) I want to live in a large city because you have much more shopping centers and you have much more people in there. I live in a big city and it is very fine. In a small town, I don't know, I don't live in a small town.

APPENDIX D

ENGLISH CENTRAL ASSIGNMENT INSTRUCTIONS FOR BOTH SHARED
AND LEARNER CONTROL CONDITIONS

English Central Assignment: Group A (Shared Control)

- 1) After logging in, click on My Class at the top of the screen. This is the Advanced 1 Listening Speaking channel.

The screenshot shows the English Central interface. At the top, there's a navigation bar with 'EnglishCentral', 'My English', 'My Class' (highlighted with a green arrow), and 'Browse'. Below this, the user's profile 'Dianna Lippincott's' is shown, along with 'Advanced 2 Listening Speaking' and a 'Like' button. A progress bar indicates '3% COMPLETE'. Below the progress bar, there are four tabs: 'WATCH' (5 videos), 'VOCABULARY QUIZ' (25 words), and 'SPEAK' (5 videos, 5000 points). The 'Courses' section shows 'Advanced 1 Listening and Speaking' (0% complete, Beginner level, 59 videos, 17 units). Underneath, 'Unit 1: Communication Studies (Slang/Language Change)' is selected, showing four video thumbnails: 'The History of English (Chapter 9): Internet English', 'Voice-activated Elev...', 'How American Slang...', and 'Successful Negotiations...'. A sidebar on the right contains 'About this Video' and 'Key Learning Points'.

You will complete one unit each week. There are four videos per unit. Your teacher will tell you which unit you should complete within the week.

- 2) For each video, complete all three tabs for that video: watch, learn, and speak.

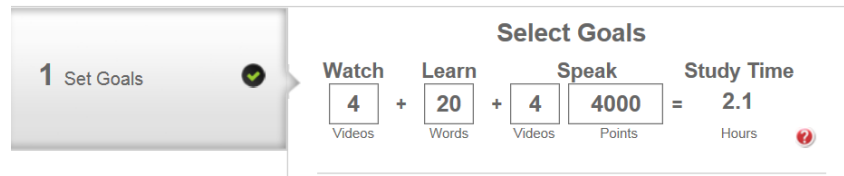
The screenshot shows the English Central video player interface. The video title is 'Hollywood Film Violence Unlikely to End'. The video player has three tabs: 'WATCH', 'LEARN', and 'SPEAK', each with a green arrow pointing to it. The video is currently playing, showing a scene with a person holding a gun. Below the video player, there are 'Recommended Videos' and a 'Top Scores' list. The 'Top Scores' list shows the following data:

Rank	Username	Score
1	Koyoshi	3116
2	superfluity	3085
3	kaorukeura	3080
4	Hayashi Aki	3067
5	bmwhusa	2997
6	himawari2010	2951
7	Tomohide Alfred Yasumura	2931
8	theatreorange	2903
9	Potechin	2869
10	swwx	2840

- 3) Make sure you take the quiz (video number 5) at the end of each unit.

There are 4 goals for you to complete by **every Sunday before 5pm:**

- watch 4 videos
- learn 20 words (You may take a quiz called “My Words” located just below the word “Browse” at the top of the page)
- speak 4 videos
- earn at least 4,000 speak points (based on pronunciation accuracy)



The 4:59 pm deadline is very important.

If your speak points are low, you need to redo (speak again) the videos to get more points. Your grades are based on the percentage of the goals you complete.

*When you click on the ‘speak’ tab, **make sure the box next to “focused speak mode” is NOT checked (also found under the settings icon that looks like a wheel)**. If there is a checkmark in this box, you will only record part of the video and it will be impossible for you to reach your speak points goal.

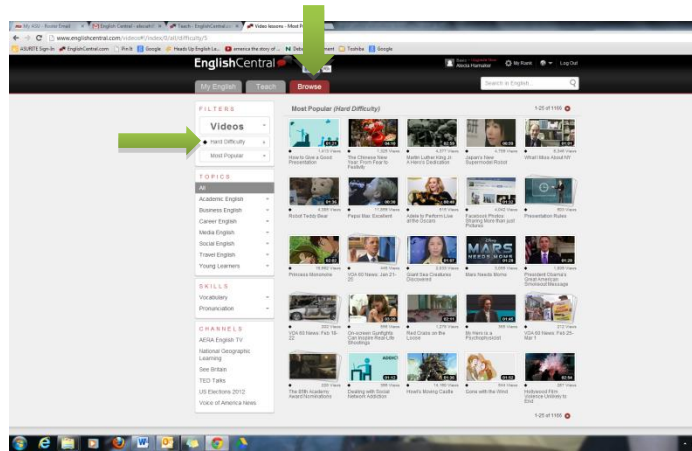
*Use the tools in English Central to improve. Next to the English Central logo at the top of the web page, there is a tab called “My English”. Click on it to get feedback on your specific pronunciation strengths and weakness. Use the videos to practice and improve the sounds that you have trouble with.

If you wish to watch videos outside of the class channel, click on Browse. Then, under ‘Filters’ and choose “Advanced.” Finally, look for videos either using the menus on the left (topic, skills, or channels) or by using the search box to type in anything you might be interested in.

English Central Assignment: Group B (Learner Control)

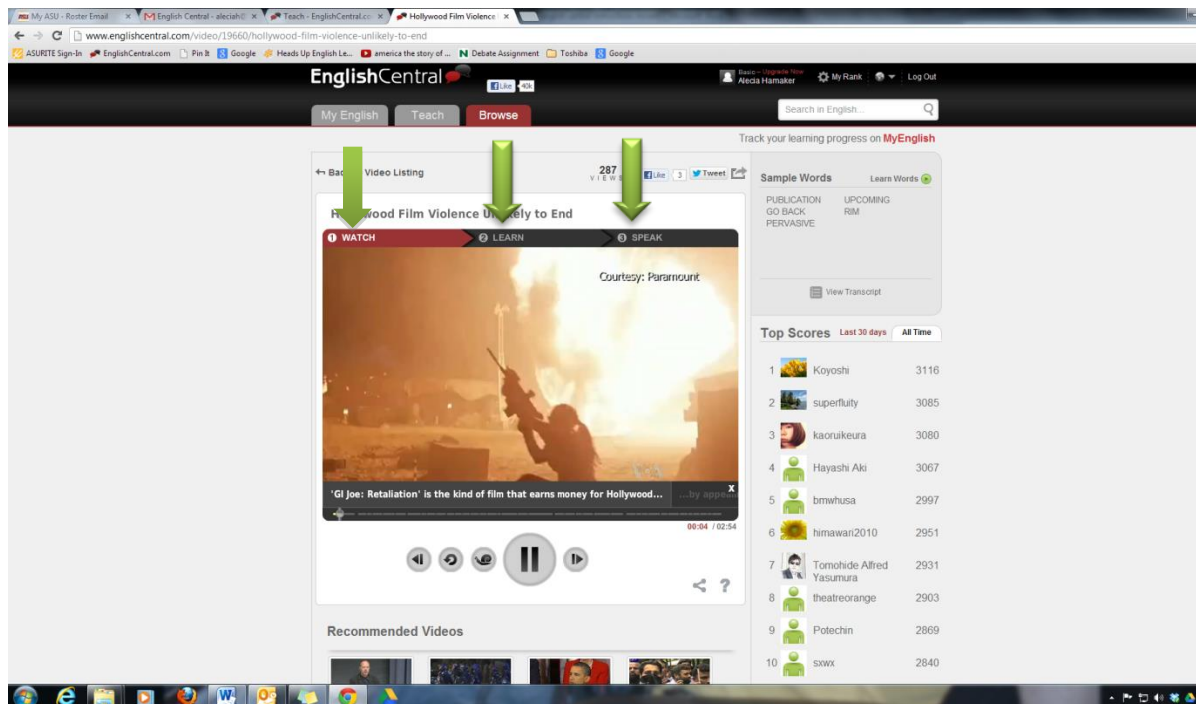
1) After logging in, click on the “Browse” tab on the far right.

2) Under “Filters” choose “Advanced”



3) Choose a video that you think looks interesting and click on it. Generally, it must be over 90 seconds long to give you a good number of points.

4) Complete all three tabs for that video: watch, learn, and speak.



5) Repeat with 3 other videos

There are 4 goals for you to complete by **every Sunday before 5pm:**

- watch 4 videos
- learn 20 words (You may take a quiz called “My Words” located just below the word “Browse” at the top of the page)
- speak 4 videos
- earn at least 4,000 speak points (based on pronunciation accuracy)

The screenshot shows a 'Select Goals' interface. On the left, there is a grey button labeled '1 Set Goals' with a green checkmark icon. To the right, the goal summary is displayed as follows:

Watch	Learn	Speak	Study Time
4	20	4	2.1
Videos	Words	Videos	Hours

The 'Speak' goal is further detailed as 4000 Points. A red question mark icon is visible at the bottom right of the interface.

The 4:59 pm deadline is very important.

If your speak points are low, you need to redo (speak again) the videos to get more points or browse for additional videos. Your grades are based on the percentage of the goals you complete.

*When you click on the ‘speak’ tab, **make sure the box next to “focused speak mode” is NOT checked (also found in the settings icon that looks like a wheel)**. If there is a checkmark in this box, you will only record part of the video and it will be impossible for you to reach your speak points goal.

*Use the tools in English Central to improve. Next to the English Central logo at the top of the web page, there is a tab called “My English”. Click on it to get feedback on your specific pronunciation strengths and weakness. Use the videos to practice and improve the sounds that you have trouble with.

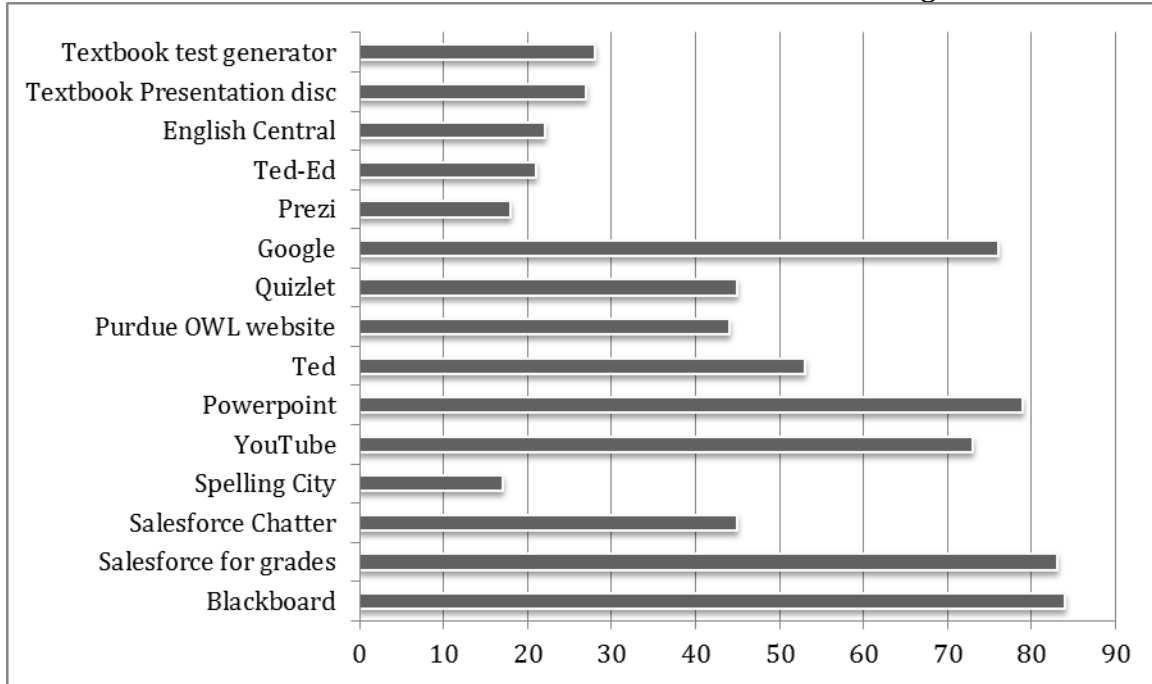
APPENDIX E

SPRING 2014 TECH SURVEY AT THE AMERICAN ENGLISH AND
CULTURE PROGRAM

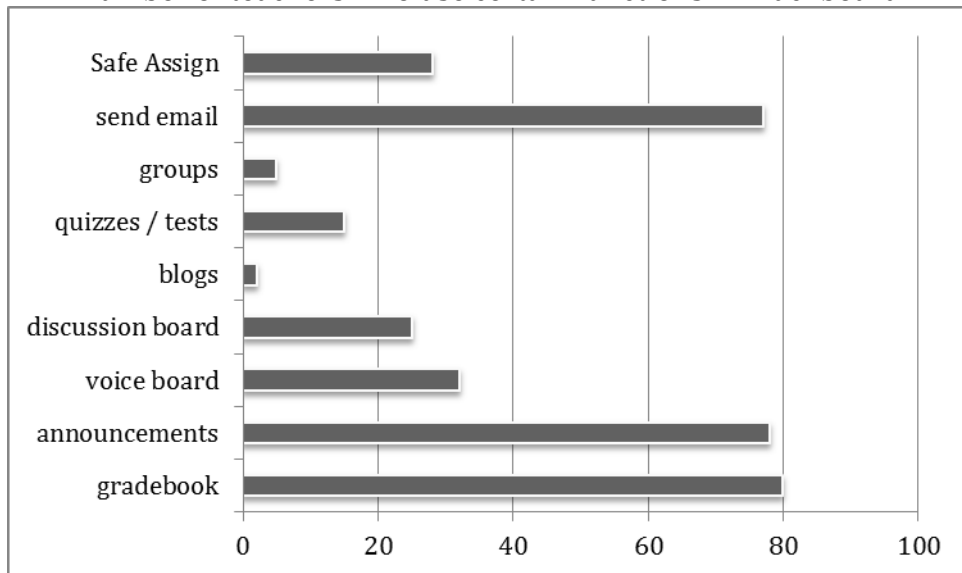
Online and Tech Tools Used at the American English and Culture Program

ABC	iCloud	Teachertube.com
Adobe Acrobat	imbd	Teamwork PM
Amazon Instant Video	iMovie	TED
ASU library	Instagram	Ted-ed
ASU website	Intermediate Listening Comprehension	Tell Me More
Audacity	iTunes	Ten fast fingers
Authorstream.com	Jing	Tesol.org
AzarGrammar / Azar's blog	jobing.com	Testmoz
AZ Central	justtheword.com	Thesaurus.com
BBC / BBC video	Kayak	Today's Meet
Blackboard	Learnboost	TopNotch Active Book
Blogger	learnersdictionary.com	Townsend Online
Boggle's world	Linguist Toolbox	Travelocity
Breaking News English	Linked in	Turning Point Technologies (clickers)
Bubbl.us	listenandwrite.com	Udemy.org
Busyteacher.org	ListeningLab	UNESCO
California Distance Learning Program	Many Things	U of Iowa
Cambridge Phrasal Verb Machine	math.com	U of Minn
Canvas	Meme generator	Urban dictionary
Cengage	Micrograde	Vine
Citation machine	MP3 Audio generator for iphone and droid	Visuwords
Citation producer	MW dictionary online	VOA
Citefast	MyELT	Voiceboard
CNN	National Geographic	Voice recorders
COM-1 aviation listening	NBC	Voicethread
Corpus of Contemporary American English	Netflix	Voki
Curriculet	Notability (iPad)	WeChat
Cyber ESL listening	NPR	Weather.com
Dave's	Office	Wikipedia
Dictionary.com	Online stopwatch	Windows Movie Maker
Discoverengineering.org	OWL (Purdue University)	WP Carey academic integrity quiz
Discovery	Paper.li	www.elcivics.com
Dropbox	Paraphrasing	Yahoo
Ease.ly	Pathways	You Tube
Easyprompter.com	PBS Learning	Zap reader
ELLLO	Pearson Versant	Zite
English Central	Peoplesoft	Zotero
English for everyone	Picktochart	
english4u	pjalien.wordpress	
englishclub.com	Podcasts	
englishpage.com	Powerpoint	
englishpronunciationlessons.com	Prezi	
englishvocabularyexercises.com	QR codes	
Enneagraminstitute.com	QuickGrader	
esl-fast	Quizlet	
esl-lab.com	Randall's ESL Lab	
eslgalaxy	Rcampus (rubrics)	
eslvideo.com	realenglish.com	
eslwriting.org	Reforworks	
Evernote	Rewordify	
Excel	Rubistar	
Facebook	SalesForce	
Flickr	Santa Monica Chemistry Dept.	
Ginger software	Scholastic	
goanimate4schools.com	Science channel	
Google calendar	SeaMonkey	
Google clip art	Socrative	
Google docs	Son of Citation Machine	
Google images	Sound Forge by Sony	
Google search	Spelling City	
Google/Google Scholar	Spreeder	
GoogleVoice	SPSS	
Great Writing	Stanford Core NLP	
Great Paragraphs	Storycorps.org	
History.COM	Study zone	
Internet TESL journal	Survey Monkey	

Number of teachers who use selected technologies



Number of teachers who use certain functions in Blackboard



APPENDIX F

CONSENT FORM FOR SHARED AND LEARNER CONTROL CONDITIONS

CONSENT FORM: Groups A and B ENGLISH CENTRAL STUDY

RESEARCHERS

Dr. Robert Atkinson, an Associate Professor at Arizona State University's School of Computing, Informatics, and Decision Systems Engineering and Shane Dixon, a PhD candidate in Educational Technology, have invited your participation in this research study.

STUDY PURPOSE

The purpose of the research is to find out the effectiveness of English Central.

DESCRIPTION OF RESEARCH STUDY

There are two parts to this study.

PART 1

The first part of the study is required of all Advanced 1 Listening/Speaking students. During these eight weeks, you will watch a series of videos provided by English Central, and perform tasks to improve your English. Following your participation, you will take a survey asking about the experience. This is a class assignment and your teachers will give you a grade for your participation. You may also be given a think aloud assignment that will last about an hour. It will not be graded. I am asking for your permission to use these assignments as data for this research.

PART 2

The second part of the study is not required coursework. There will be two tests (the Pearson Versant Speaking Test) that will be given to you, one at the beginning of the session (week 1) and one at the end (week 8). The tests are 30 minutes long and will NOT affect your grade in the course. You will be given the results of your test if you so choose. Filling out the tests will be considered your consent for this part of the research. Your participation will last from one to two sessions at the American English and Culture Program (8-16 weeks). Approximately 150 subjects will be participating in this study.

RISKS

There are no known risks from taking part in this study, but in any research, there is some possibility that you may be subject to risks that have not yet been identified.

BENEFITS

English Central is a language tool that can help improve your pronunciation, especially by focusing on specific sounds called phonemes. English Central is also a tool that helps in listening comprehension and speaking proficiency.

CONFIDENTIALITY

All information obtained in this study is strictly confidential. The results of this research study may be used in reports, presentations, and publications, but the researchers will not identify you. In order to maintain confidentiality of your records, Robert Atkinson will not collect or share your name.

WITHDRAWAL PRIVILEGE

Your participation is voluntary. You may withdraw at any time without penalty. Participation will not affect your grade.

VOLUNTARY CONSENT

Any questions you have concerning the research study or your participation in the study, before or after your consent, will be answered by Robert Atkinson at Robert.Atkinson@asu.edu or Shane Dixon at sdixon@asu.edu. If you have questions about your rights as a subject/participant in this research, or if you feel you have been placed at risk; you can contact the Chair of the Human Subjects Institutional Review Board, through the ASU Office of Research Integrity and Assurance, at 480-965 6788.

By signing below you are agreeing to have your classwork used as data in this research project.

Subject's Signature

Printed Name

Date

**CONSENT FORM: Group C
ENGLISH CENTRAL STUDY**

RESEARCHERS

Dr. Robert Atkinson, an Associate Professor at Arizona State University's School of Computing, Informatics, and Decision Systems Engineering and Shane Dixon, a PhD candidate in Educational Technology, have invited your participation in this research study.

STUDY PURPOSE

The purpose of the research is to find out the effectiveness of an English Language Tool.

DESCRIPTION OF RESEARCH STUDY

There will be two tests (the Pearson Versant Speaking Test) that will be given to you, one at the beginning of the session (week 1) and one at the end (week 8). The tests are 30 minutes long and will NOT affect your grade in the course. You will be given the results of your test if you so choose. Filling out the tests will be considered your consent for this part of the research.

Your participation will last from one to two sessions at the American English and Culture Program (8 weeks). Approximately 150 subjects will be participating in this study.

RISKS

There are no known risks from taking part in this study, but in any research, there is some possibility that you may be subject to risks that have not yet been identified.

BENEFITS

English Central is a language tool that can help improve your pronunciation, especially by focusing on specific sounds called phonemes. English Central is also a tool that helps in listening comprehension and speaking proficiency.

CONFIDENTIALITY

All information obtained in this study is strictly confidential. The results of this research study may be used in reports, presentations, and publications, but the researchers will not identify you. In order to maintain confidentiality of your records, Robert Atkinson will not collect or share your name.

WITHDRAWAL PRIVILEGE

Your participation is voluntary. You may withdraw at any time without penalty. Participation will not affect your grade.

VOLUNTARY CONSENT

Any questions you have concerning the research study or your participation in the study, before or after your consent, will be answered by Robert Atkinson at Robert.Atkinson@asu.edu or Shane Dixon at sydixon@asu.edu.

If you have questions about your rights as a subject/participant in this research, or if you feel you have been placed at risk; you can contact the Chair of the Human Subjects Institutional Review Board, through the ASU Office of Research Integrity and Assurance, at 480-965 6788.

By signing below you are agreeing to have your classwork used as data in this research project.

Subject's Signature

Printed Name




APPENDIX G

PEARSON VERSANT TEST INSTRUCTIONS (PHONE FORMAT)

Test Instructions - Phone

Please read this before taking the test

Versant tests are automated spoken language tests that are taken on the telephone or computer. If you would like to listen to a sample test, purchase a practice test, or view the test score after taking the test (if applicable), please visit www.VersantTest.com

Part	Instructions
<p>Before the Test</p>	<ul style="list-style-type: none"> Carefully read this instruction page and the test paper. You may use a dictionary or ask someone for help if there are words or sentences that you don't understand. Choose a quiet location with a landline phone where you will not be interrupted during the test. Do not use a cordless phone, cellular phone, or VoIP phone (e.g., Skype™ or PC-to-phone services). Newer phones are generally better than older phones. Make sure that the phone is set to tone and not pulse.
<p>Beginning the Test</p>	<ul style="list-style-type: none"> To begin the test, call the phone number on the test paper using a landline push-button telephone. A recorded examiner's voice will guide you through each section of the test. Enter your Test Identification Number using the telephone keypad when the examiner's voice asks you to do so. This number is printed on the top right of your test paper. The examiner's voice will then ask you two questions: your name, and the city and the country you are calling from. If you are speaking too loudly or too quietly, the examiner's voice will tell you. The test begins when you say your name. If you hang up before you complete the test, the test cannot be graded. You cannot reuse the Test Identification Number.
<p>During the Test</p>	<ul style="list-style-type: none"> Hold the phone close to your mouth as shown in the picture below. <div style="display: flex; justify-content: space-around; align-items: flex-end;"> <div style="text-align: center;">  <p>NO Too low, too far away</p> </div> <div style="text-align: center;">  <p>YES In front of mouth</p> </div> <div style="text-align: center;">  <p>YES A good distance</p> </div> </div> <ul style="list-style-type: none"> Answer all questions smoothly and naturally in a clear, steady voice. If you don't know the proper way to respond to a test item, you can remain silent or say, "I don't know." Do not take notes or write during the test. When you hear, "Thank you for completing the test", you may hang up. If you wish, you may answer the optional questions at the end of the test. Your personal information will be kept anonymous.