

The influence of interest and prior knowledge on EFL students' current news article/podcast reading and listening

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Abstract

This article examines the association between interest and prior knowledge with regard to reading and listening comprehension of online news articles/podcasts for 72 students studying English as a foreign language (EFL). Intermediate- to upper-intermediate level students studying sophomore English for non-English majors at a university in Taipei, Taiwan, rated both their interest and prior knowledge of four news stories. Following this, reading (two articles) and listening (two podcasts) comprehension of the news stories was assessed. Significant correlations between interest and prior knowledge were obtained for three of the topics. Paired t-tests found statistically significant differences in the comprehension scores for reading and listening separately. While interest and prior knowledge did not display any significant associations with comprehension test scores, overall interest in English news topics showed a significant correlation with overall grade for the course. Follow-up interviews with 10 students showed considerable differences in attitudes and interest towards studying English between students who provided high ratings for interest and prior knowledge of the news stories and those who provided low ratings. The implications are considered and suggestions for instruction are offered.

Keywords: Interest, Prior knowledge, News English, Podcasts, Reading and listening comprehension

Introduction

Following the introduction of computers into classrooms over the past couple of decades, EFL instructors have been provided with a multitude of computer-assisted language learning (CALL) options to complement their lesson materials with online resources. Indeed, the benefits of incorporating technology into the classroom are well documented (for extensive detail on this subject see for example Egbert & Petrie, 2005; Stanley, 2006; Egbert, Akasha, Huff & Lee, 2011; Rosell-Aguilar, 2013; Farangi, Nejadghanbar, Askary & Ghorbani, 2015). One type of resource instructors may decide to incorporate into their classroom repertoire is online news media articles or podcasts. Including internet-based resources can add a new dimension of interest to EFL classroom environments as students are exposed to topics they have likely encountered outside of the classroom in mainstream media and therefore potentially possess prior knowledge of.

Interest and prior knowledge are both variables that have been revealed as important factors influencing motivation, instruction and learning outcomes (Bergin, 1999; Brantmeier, 2006; Dörnyei, 1994; Shapiro, 2004). In recent years, these two variables

have become more widely researched in EFL literature (Brantmeier, 2006; Eidswick, 2010; Mai, Ngoc & Thao, 2014). However, as yet, relatively little research vis-à-vis their role regarding CALL/EFL settings has been published. This article aims to take a step in the direction of relieving this situation by examining the association between interest and prior knowledge with regard to EFL reading and listening comprehension of current news articles and podcasts from the Breaking News English website. Students from two sophomore English for non-English majors classes at a university in northern Taiwan rated the news topics according to their perceived levels of interest and prior knowledge. Following this, the students either read or listened to the news articles/podcasts and answered 10 multiple choice questions.

To gain a more in-depth and personal perspective of the effects of interest and prior knowledge on students' English language learning, 10 students were invited to take part in short (about 5 to 8 minutes each) semi-structured interviews. They comprised of five students who scored in the top 10 percent and five who scored in the bottom 10 percent for their interest and prior knowledge ratings. The questions followed the themes of the students' general interest in English and interest and prior knowledge regarding the news topics used in the study.

Literature Review

Interest

Interest is a human emotion intricately tied to learning, motivation and development (Silvia, 2006). A wealth of research in the field of educational and cognitive psychology has established an undeniable association - via focused attention, intensified cognition, and applied effort - between the psychological construct interest and cognitive functioning and performance (Ainley, Hidi & Berndorff, 2002; Hidi, 1990). Thus, people involved in some activity, either intellectual or physical, are likely to perform better if they are interested in that activity. Following this, it is not surprising that the relationship between interest and learning outcomes has proven relatively robust over time (Shirey & Reynolds, 1988; Hidi, 1990; Sadoski & Quast, 1990).

Generally, interest is viewed as being individual or situational. Individual interest is related to a person's inclination to connect with certain materials, topics, events or beliefs. It is thought to be associated with personal sentiments and principles that develop over time. Situational interest, on the other hand, is often related to attractive appearance or novelty value. Therefore, the former is regarded as being more stable and lasting, while the latter is viewed as being more context-specific and transitory (Tin, 2013). Nevertheless, situational interest may be the catalyst for individual interest.

The variable interest is one of the important variables composing the concept motivation, and numerous language learning studies on intrinsic motivation find the two constructs synonymous (Brantmeier, 2006; Dornyei, 1994; Tin, 2013). Nevertheless, while the body

of literature surrounding interest has found it to be a valuable motivational factor that enhances learning, studies investigating the role of interest in EFL contexts are relatively few and typically focused on aspects of reading erudition (see for example Chiang & Dunkel, 1992; Eidswick, 2010). As such, a definitive relationship between the variable interest and EFL reading comprehension has yet to be established (Brantmeier, 2006; Eidswick, 2010). Moreover, reports specifically considering characteristics of interest with regard to listening and achievement appear to be less common, thus offering ample room for research in this area.

Prior knowledge

Prior knowledge has also been revealed as an important variable in cognitive functioning. People with a stronger knowledge base place lower demands on their working memory information processing, resulting in improved attention and focus, and thus learning efficacy (Baddeley, 1986; Kalyuga, 2007). Reading comprehension tests have exposed considerable bias due to the presence of participants' prior knowledge influencing test scores (Alderson, 2000). This is particularly relevant where culturally-specific features appear in texts (Chihara, Sakurai & Oller, 1989).

Research acknowledges that listening, especially in unidirectional situations where the listeners cannot see the speaker and seek feedback, is often difficult for second language learners to master (Chang & Read, 2006; Macaro, Vanderplank & Graham, 2005). Furthermore, Chung (1999) states that: "Listening plays a significant role in the language acquisition process and in communication, and its development as a key second/foreign language skill has gradually become of chief concern to language teachers and scholars" (p. 295). Her study conducted at a college in Taiwan reported that a combination of advanced organizers and captions aided comprehension of video text segments for the 170 students. In addition to this, Chang and Read (2006) investigated different forms of college student preparation support for listening tests and found providing support via background information to be the most effective in encouraging EFL learners to improve their test scores.

Recent EFL research with college students in a variety of countries tends to support the positive role prior knowledge plays in listening comprehension. One study conducted in Iran showed that, for higher level students, pre-task content activities designed to stimulate prior knowledge were indeed beneficial to improving listening scores (Farrokhi & Modarres, 2012). Another indicated that schema building activities to promote background (prior) knowledge of students in Vietnam successfully enhanced their listening scores (Mai et al., 2014).

Although the results of the aforementioned studies appear to support the presence of a positive correlation between prior knowledge and various types of EFL achievement, it must be noted that the relationship between prior knowledge and EFL performance most certainly depends on numerous interrelated and dynamic factors (Marcao et al., 2005; Eidswick, 2010). Accordingly, the results of these studies, which operationalize prior knowledge with a variety of approaches, employ different treatments or methodologies,

and use numerous types of texts, articles and tests to measure comprehension, are not always readily comparable.

Complexities concerning the interest-prior knowledge nexus are apparent, with the direction and causation of the connection remaining unclear (Alexander, Kulikowich & Jetton, 1994; Eidswick, 2010). For example, Carrel and Wise (1998) present results with no correlation between interest and prior knowledge and no influence of the two variables on reading comprehension. They ascribe this to the conditions under which knowledge is often acquired in school settings where students may have prior knowledge of academic matter they have little interest in. Future studies conducted on students with a common first language to remove differences which may arise between groups of different nationalities are recommended. Moreover, difficulty isolating the variables interest and prior knowledge among other confounding factors adds to these somewhat perplexing circumstances.

Research questions

The introduction of computers into classrooms over the past couple of decades has provided EFL instructors with opportunities to complement course materials with numerous online resources. Employing internet-based materials such as news articles and podcasts can add a new dimension to EFL classroom environments with students encountering media items they are often interested in and possess prior knowledge of. Interest and prior knowledge are both variables that have been revealed as important factors influencing motivation, instruction and learning outcomes (Bergin, 1999; Brantmeier, 2006; Dörnyei, 1994; Shapiro, 2004). However, as yet, relatively little research concerning the influence of interest and prior knowledge in CALL/EFL settings has been published. This study intends to examine the concepts of interest and prior knowledge within this context by using web-based current news articles/podcasts in an EFL setting. A combination of questionnaires and interviews are utilized to investigate the following research questions:

1. Is there an association between interest and prior knowledge regarding the news articles used in this study?
2. To what extent, if any, do interest and prior knowledge ratings of the news articles affect reading and listening comprehension?
3. Is the effect of interest and prior knowledge different for reading and listening skills regarding the news articles?
4. Do online materials such as podcasts/news articles play a role in enhancing students' interest in learning English as a foreign language?

Method

Materials

The materials chosen for use in the reading and listening exercises came from the Breaking News English web page (<http://www.breakingnewsenglish.com/>), a popular current affairs website for students and teachers of English as a foreign language. On April 3, 2014, a random selection of four themes chose Business English, Health, Environment and Lifestyle. From each of these themes, one lesson was randomly chosen from those classified “Harder”. Finally, the articles “Google investing \$1billion in renewable technology” and “Couple get married in Shrek costumes” were chosen for the readings, and the articles “Candy Crush Saga most downloaded app” and “Volunteering helps you live longer” were selected for the listening exercises. The difficulty of the reading articles was measured using the Flesch-Kincaid readability formula, which has been shown to be appropriate and reliable for non-native speakers of English (Greenfield, 2004), whereas the difficulty of the listening articles was calculated using Fang’s listening score (Fang, 1966). For the readings, the articles were printed to be given to the students, while the MP3 podcasts were to be used for the listening tasks. From here on in these articles will be denoted in italics as *Google*, *Shrek*, *Candy* and *Volunteer*. The URLs are shown below and screenshots of the website are displayed in Figures 1, 2 and 3.

- <http://www.breakingnewsenglish.com/1402/140220-renewable-energy.html>
- <http://www.breakingnewsenglish.com/1401/140103-candy-crush-saga.html>
- <http://www.breakingnewsenglish.com/1308/130826-volunteering.html>
- <http://www.breakingnewsenglish.com/1312/131226-fairy-tale-wedding.html>

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LEVEL 6	PRINT	LISTEN	READ	GRAMMAR	SPELL	WORDS
See also... Level 4 Level 5 All	* 26-page lesson (40 exercises) * 2-page MINI lesson	* MP3 (British) * MP3 (N. America) * 5 Speeds * MP3 (20 Qs) * Listen & spell * Dictation - (10 sentences)	* Speed Read (4 speeds) * Jumble 1 * Jumble 2 * No spaces * Text jumble * QUIZ	* Gap-fill * The/An/A Gap-fill * Prepositions * Word order	* Consonants * Vowels * Initials only * No letters * Blank letters * Hangman	* Flash cards * Word pairs * Matching * Crossword * Missing words * Gap-fill

Google investing \$1billion in renewable energy (20th February, 2014)

Tech giant Google is investing \$1billion in renewable energies to make its operations totally green. The company hopes to exploit solar energy, wind farms and other forms of alternative energy to power its data centres around the world. Rick Needham, Google's Director of Energy and Sustainability, told reporters: "We've invested over a billion dollars in 15 projects that have the capacity to produce two giga-watts of power around the world." Mr Needham added it was an economic necessity for Google to invest in energy. He said: "Procuring power for ourselves and investing in renewable power plants...all make business sense. They make sense for us as a company to do. We rely on power for our business."

Figure 1. Breaking News English website: Google article

www.Breaking News English.com
Ready-to-Use English Lessons by Sean Banville

**"1,000 IDEAS & ACTIVITIES
FOR LANGUAGE TEACHERS"**
www.breakingnewsenglish.com/book.html

**Thousands more free lessons
from Sean's other websites**
www.freeeslmaterials.com/sean_banville_lessons.html

Level 6
Google investing \$1billion in renewable energy
20th February, 2014
<http://www.breakingnewsenglish.com/1402/140220-renewable-energy.html>

Contents

Figure 2. First page of Google article printable lesson

MULTIPLE CHOICE - QUIZ

From <http://www.BreakingNewsEnglish.com/1402/140220-renewable-energy.html>

<p>1. What kind of farms does Google want to exploit?</p> <p>a) fish b) wind c) fat d) dairy</p>	<p>6. How much of Google's operations are powered by renewables?</p> <p>a) 34% b) 33% c) 43% d) 44%</p>
<p>2. What kind of centres does Google want to power?</p> <p>a) middle b) social c) data d) youth</p>	<p>7. What is Google's goal in terms of being powered by renewables?</p> <p>a) 90% b) 90-100% c) 110% d) 100%</p>
<p>3. How much power can Google's projects</p>	<p>8. What is one of the biggest challenges</p>

Figure 3. Multiple-choice questions for Google article printable lesson

Participants

The students ($n = 72$) were in two 'high' level (intermediate to high-intermediate proficiency) classes of Sophomore English for non-English majors, comprising 39 students studying business and 33 studying law at a university in northern Taiwan. To enter the class students had to perform in the top 20 to 25 percent of students in a reading and listening skills placement test conducted during the final semester of their Freshman English course the previous year.

All of the students were Mandarin speakers and participated in the study voluntarily. The average age was recorded as approximately twenty years and six months ($M = 20.56$, $SD = 1.19$). Females comprised 56 percent ($n = 40$) of the students and males the other 44 percent ($n = 32$). Students were informed at the beginning that participation was not

mandatory, that they were not required to answer the survey or test questions, and that they could withdraw from the study at any time.

Procedures

During May, 2014, the research was conducted in regular class time. Each student received a questionnaire containing short, one sentence, descriptions of the articles they would either read or listen to (the full survey is reproduced in the Appendix). Using a 5-point Likert scale, students were requested to rate the articles regarding their perceived interest and prior knowledge. With the optimal number of response categories still undecided by the research community (Preston & Coleman, 2000), this research opted to use a scale with a neutral point in the belief that it allowed the students to be more discriminate in their responses (Adelson & McCoach, 2010; Cronbach, 1950). Other than this, the questionnaire was similar to that used in Eidswick's 2010 study.

The reading section was conducted by giving the *Google* article first and allowing five minutes silent reading. Then without referring back to text, students had three minutes to answer 10 multiple choice questions, each with four possible answers: a, b, c, or d. These questions were the same ones published on page nine of each lesson on the Breaking News English website. An identical procedure was followed for the reading of the *Shrek* article.

The listening section followed a similar format to that of the reading. However, initially the students listened to the North American accent versions of the MP3 podcasts one time. Then they had three minutes to answer the 10 questions with four possible answers published on page nine of the lessons on the BNE website. The *Candy* article was completed first, followed by the *Volunteer* article. After all of the tests were completed the papers were collected for grading and data entry.

Interviews have been employed in research as one way to enhance data collection and gain further insight into the unique perceptions of a study's participants, thus deepening the researchers understanding of the specific features surrounding each individual's experience (Merriam, 2002). Accordingly, retrospective interviews were successfully used by Tin (2013) to collect in-depth case material on participants' interest and English-language learning experiences.

To gain a more in-depth and personal perspective of the effects of interest and prior knowledge on the students' English language learning, 10 students were invited to take part in short (about 5 to 8 minutes each) semi-structured interviews. They comprised of five students who scored in the top 10 percent and five who scored in the bottom 10 percent for their interest and prior knowledge ratings based on their cumulative ratings of both constructs. That is, the four ratings for interest were added together, as were the four ratings for prior knowledge, and to be selected for interviews the students had to fall into the groups of those rating in the highest or lowest 10 percent for both constructs. The questions followed the themes of students' general interest in English and interest and prior knowledge regarding the topics used in the study. The interviews were conducted in

English and questions were asked by the instructor after class following implementation of the reading and listening tests. Interviewees were assured that their responses would be used solely for research purposes and that pseudonyms would be used to protect their privacy. All of the students willingly agreed to give their time to answer the questions.

Result

Quantitative analysis

Results of the interest and prior knowledge questionnaire are presented in Table 1, with means followed by standard deviations. This shows that, with respect to interest, the mean score for the *Google* article was slightly higher than that of the *Shrek* article. However, the reverse was true with regard to prior knowledge. The *Volunteer* article rated higher than the *Candy* article for interest, while the opposite was the case for prior knowledge. There were no significant differences between the ratings based on gender. It should also be noted that the high and low combination configurations found by Eidswick (2010) did not eventuate using the articles selected from the website used for this study.

Quartile-quartile plots showed that the data from the sample followed a normal distribution. Furthermore, measures of skewness and kurtosis did not show cause for concern. However, results of a Shapiro-Wilkes test for normality found that we could not accept the assumption of normality. Therefore, a selection of non-parametric rank correlations between interest and prior knowledge make up the second part of Table 1. First, Kendall's tau is presented, as in Eidswick (2010); then, due to the ordinal nature and large number of ties between the data points, Goodman and Kruskal's gamma correlations are also presented.

Table 1.

Interest and prior knowledge and interest-prior knowledge correlations

Article	Interest n=72		Prior knowledge n=71		Interest-prior knowledge correlations	
	M	SD	M	SD	τ	gamma
Reading						
<i>Google</i>	3.63	0.91	3.05	0.85	0.44**	0.63**
<i>Shrek</i>	3.5	0.99	3.14	0.93	0.34**	0.47**
Listening						
<i>Candy</i>	3.12	1.01	3.28	1.02	0.54**	0.70**
<i>Volunteer</i>	3.62	0.96	3.08	0.74	0.18	0.26

Note: ** significant at 0.01 level, * significant at 0.05 level.

The statistics presented in Table 2 cover the analysis of the difficulty of the texts used for the reading and writing sections of this research. These show that the *Shrek* article was the most difficult reading article according to the Flesch-Kincaid readability score. While the *Shrek* article's score of 68.9 would indicate a standard level of difficulty, the *Google* article's score of 51.5 represents a fairly difficult level of difficulty (Flesch, 1948; DuBay,

2004; Eidswick, 2010). The *Volunteer* article was the most difficult listening article with regard to Fang's listening score. Its score of 17.89, measuring the average number of polysyllabic words per sentence, would place it in the standard difficulty range as compared to the *Candy* score of 6.5 placing it in the easy level (Fang, 1966).

The following part of Table 2 presents the means and standard deviations of the reading and listening test scores, and shows that students scored higher on the *Shrek* article for the reading and higher on the *Volunteer* article for the listening. No significant differences were found between test scores based on gender.

Table 2.
Reading and listening difficulty and test scores

Article	Reading and listening difficulty			Test scores		
	words	words/ sentence	F-K readability	Fang's listenability	n=72	
Reading					M	SD
<i>Google</i>	244	17.4	51.5	(10.93)	7.85	1.54
<i>Shrek</i>	247	16.5	68.9	(7.13)	8.44	1.28
Listening						
<i>Candy</i>	248	13.8	(68.3)	6.5	7.05	1.85
<i>Volunteer</i>	221	24.6	(35.7)	17.89	7.88	1.79

Note: Figures in parentheses are included to give a comparison between readability and listenability of the articles.

The statistics presented in Table 3 display the results of t-tests on the differences between the two reading articles and two listening articles. They tell us that there were significant differences between the scores for *Google* vs *Shrek* and *Candy* vs *Volunteer*, with the negative values and confidence intervals indicating student scores on the *Shrek* and *Volunteer* articles registered higher values than those for the *Google* and *Candy* articles. Further, the pairs of reading ($r=0.23$, $p=0.016$) and listening ($r=0.33$, $p=0.001$) articles were moderately correlated.

Table 3.
Paired t-tests: differences between test scores

Article	t-test	95% CI for mean difference	p value	df
Reading				
<i>Google</i> vs <i>Shrek</i>	-3.01**	-0.99, -0.21	0.003	71
Listening				
<i>Candy</i> vs <i>Volunteer</i>	-3.33**	-1.18, -0.30	0.001	71

Note: two-tailed t-test; ** significant at 0.01 level.

In addition to the analysis results presented above, correlations between interest and prior knowledge and comprehension test scores for each of the articles failed to find any significant results at the 0.05 level, as did MANOVA tests with interest and prior knowledge as independent variables and comprehension test scores as dependent

variables. To further analyze the data, the values for interest and prior knowledge over the four articles were summed as proxies for general interest in English news topics ($M = 14.03$, $SD = 2.47$) and overall prior knowledge of English news topics ($M = 12.54$, $SD = 2.32$), and Kendall's tau and Goodman and Kruskal's gamma correlations were computed with students' overall grades for the course ($M = 78.1$, $SD = 6.19$). Results showed that students' grades were significantly correlated with interest ($\tau = 0.21$, $p = 0.016$; $\gamma = 0.23$, $p = 0.011$) but not with prior knowledge.

Qualitative Analysis

Interview results of the five students selected who scored in the top 10 percent on the interest and prior knowledge ratings (4 females and 1 male) provided unanimously positive attitudes towards studying English at university when asked about whether they were interested in English and why they were interested in it. Some common themes that arose related to the importance of English for business, for finding a job, for using in a job and for being a connected global citizen.

Cindy: *"English is important as a tool for communication in business. It is likely I will use it if I can find a job in international business."*

Ricky: *"English will be useful for finding a job in the future. If I study abroad, I'll probably need to use it... Sometimes it's not so much fun to read the textbooks we use in class, and they are not really related to what we need for our future careers."*

Irene: *"It can help me know more about what's happening in the world and communicate with people from different countries."*

Other themes that arose when questioned about interest and prior knowledge of the specific topics and articles used in this study related to interest in reading the news (both in English and Mandarin), a general interest in current affairs and desire to know what's happening in the world.

Cindy: *"I often enjoy reading the news online and have seen some of the subjects Teacher presented before. I think I performed better because of that."*

Joyce: *"I like reading the news and knowing about the things happening in the world. It helped me understand the news articles we heard for this activity, especially for the listening as it is more challenging only to hear something one time."*

Irene: *"We often watch the news on TV at my home. It helped me know something about the articles used in this project. My general knowledge can improve from it... I'm more interested in English related to real events rather than what we read in books in class."*

For the interviews with students who scored in the bottom 10 percent for the interest and prior knowledge ratings (2 females and 3 males), a slightly different picture emerged. This could be characterized by a lack of interest in English, a lack of confidence in English and not so positive experiences with English and English learning materials. A lack of interest in the topics presented in the textbook also arose.

Steve: *“My English is not good since I was a high school student, so I don’t enjoy studying English.”*

Peter: *“I’m not really good at English, but I have to take it to graduate. The textbooks are not interesting topics.”*

Kim: *“I didn’t enjoy English class for many years. In class I only like it if teacher plays a video or music. It’s more fun than reading the book.”*

Further, inquiry into interest and prior knowledge with respect to the topics used in the reading and listening sections revealed a common indifference towards English and current affairs in general.

Peter: *“I don’t look at the news much, especially in English.”*

Kim: *“Sometimes I see the news but don’t pay much attention. I’m more interested in music and dance magazines, especially about Taiwan.”*

Kelly: *“I don’t know much about the news. Sometimes I see it on TV, but it’s usually not good news.”*

Finally, some insights were gained from both groups regarding prior knowledge and listening, with prior knowledge being advantageous to understanding and enhancing listening skills.

Irene: *“Having more knowledge helps reading, but listening even more. It’s difficult to listen to something for the first time, so if I have some background knowledge, it can help me a lot and improve my confidence and understanding.”*

Peter: *“I didn’t know much about the topics, so it was a little difficult to understand, especially the listening.”*

Kim: *“The listening was difficult because we only listened one time and I didn’t know much about the topics.”*

Discussion

The highest interest-prior knowledge correlation was for the *Candy* article, followed by those for the *Google* and *Shrek* articles. All were significant at the 0.01 level. Only the *Volunteer* article did not have a significant correlation between the two concepts. These results held true over all the measures of correlation presented, with the Goodman and Kruskal’s Gamma showing the strongest relationships and the Kendall’s tau the lowest. This shows that the themes with higher interest ratings were not necessarily the ones that received higher prior knowledge ratings as was the case in other research (Eidswick, 2010). In fact, the interest-prior knowledge rating combinations were reversed in this study, with the highest interest rated article *Google* receiving the lowest prior knowledge rating and the lowest interest rated article *Candy* receiving the highest prior knowledge rating. Therefore, higher (lower) prior knowledge was not necessarily associated with higher (lower) interest.

Such a result could be related to the students holding a higher degree of individual interest in *Google*, a company with a large brand influence in the lives of so many people, especially ‘digital natives’ such as the generation included in this sample. However,

while recognition and individual interest in *Google* may be high, prior knowledge of a specific project such as the one referred to in this article may be low. On the other hand, interest in the *Candy* article could be lower due to fading interest in the Candy Crush Saga game as other newer versions or alternatives come online. It also raises the question over the nature of the type of interest in such psychologically addictive games. Nevertheless, this article did receive a higher rating for prior knowledge, no doubt due to the games past popularity making it a Facebook game or mobile app likely to have been used at some stage by a large percentage of the students.

As for the other two articles, the correlation for the *Shrek* article was moderate and significant. Again, Shrek is a character a lot of younger people are familiar with via a successful series of animation movies produced by DreamWorks. The interest rating was reasonably high; however, the prior knowledge of the article content was lower, most likely due to the low likelihood of common knowledge relating to this particular wedding. The *Volunteer* article received a relatively high rating for interest, a lower rating for prior knowledge and insignificant correlation. This may suggest the students are interested in such a civic duty as volunteering, but less familiar with the health benefits of this activity.

From this study, we see that it shares the similarity with other research (Ainley, Hidi & Berndorff, 2002; Eidswick, 2010) in terms of the strong correlations found between the variables interest and prior knowledge for the majority of the articles. However, no local entertainment-related articles were included as in Eidswick (2010). Therefore, the higher end of the interest ratings may have been limited. Similarly, no very mundane topics such as concrete were included, thus setting a lower bound for the interest ratings.

Comparing test results and the relationship with readability, listenability and interest and prior knowledge: (i) the *Google* article rated higher for interest, slightly lower for prior knowledge, was more difficult on the readability scale (by a small degree), and obtained comprehension scores which were significantly higher than those for the *Shrek* article; (ii) the *Candy* article, which, in contrast, had lower interest and higher prior knowledge, had a lower listenability score (by a large degree), and received significantly higher comprehension scores. Therefore, the results appear to be mixed, most likely due to the overall relatively high interest and prior knowledge ratings. Furthermore, interest and prior knowledge were not significantly correlated with comprehension scores for any of the articles, a result in accordance with the findings of Carrell and Wise (1998). However, the result showing a significant positive correlation between general interest in the English news topics and the students' grades for the English course may provide an indication that interest is something which is developed by individuals over a period of time and is more enduring, rather than constituting a paradigm that is situational and perhaps somewhat ephemeral.

Semi-structured interviews with students in the bottom and top 10 percent for both interest and prior knowledge ratings sheds a more cogent light on the results of the study. Those students in the lower 10 percent generally show a pattern of lower interest in learning English and lower propensity to follow current news stories, while those in the top 10 percent quite clearly have a stronger interest in studying English and a higher

predilection to paying attention to what is happening in the news. This result echoes the above implication that students' interest in English news topics appears to emerge as individual interest in nature as opposed to situational interest arising from context-specific curiosity and corresponds with Tin's (2013) findings that interest derives from an interaction between an individual and the English language, something that must be aroused and nurtured over time.

Conclusion

This study set out to investigate interest in and prior knowledge of news articles/podcasts through the use of a combination of self-reported questionnaires and semi-structured interviews. Quantitative analysis showed that interest in and prior knowledge of the news articles/podcasts were correlated in most cases and that students' test scores displayed mixed results in terms of their connections with high (low) interest and high (low) prior knowledge combinations. Additionally, correlations between interest and prior knowledge and comprehension test scores failed to uncover statistically significant associations, yet total interest calculated from a summation of the interest items for the four articles/podcasts showed a correlation with students' overall grades for the course. Qualitative analysis in the form of interviews aided in elucidating a number of these ambiguities and illustrated clear differences between students who rated the articles/podcasts highly in terms of interest and prior knowledge and those who didn't. They also provided some indication that perhaps background knowledge is particularly helpful in facilitating listening comprehension.

This research is subject to a number of limitations. To begin with, due to time and resource constraints, this study relies on simple self-rated questionnaires where participants were given unidimensional items to measure interest and prior knowledge which cannot fully account for subtle differences in type of interest and prior knowledge. Further, this study does not include a large enough number of articles to find different specific interest-prior knowledge configurations as in Eidswick (2010). Without large differences between the articles in terms of interest and prior knowledge ratings, it is difficult to make reliable inferences about the importance of high and low interest levels on student test scores. Nevertheless, to some degree, this result is to be expected as such recent news articles are likely to arouse some propensity for interest and include such topics that have a high probability of evoking prior knowledge. This can be compared to Eidswick (2010) which found that articles including celebrities, especially those in the news recently, had much higher ratings for interest and prior knowledge compared to relatively dull topics such as concrete – a topic that does not share a counterpart in this study. Indeed, it may be challenging to find this kind of uninteresting article on the Breaking News English website with their articles generally encompassing appealing content and recency in the news.

Implications for educators include increasing their awareness of the close association between interest and prior knowledge to help teachers select relevant teaching materials to arouse student interest in learning English as a foreign language. It should also be

noted that ease of material does not necessarily stimulate higher interest, nor does higher interest necessarily translate to prior knowledge or vice versa. Perhaps a degree of flexibility on the part of those selecting class and/or textbook materials needs to be recognized and accepted, especially that which incorporates student selection of their own materials. Moreover, in addition to incorporating an element of choice for students, teachers can endeavor to select texts and materials that are well-organized and vivid with clear and relevant learning tasks (Schraw, Flowerday & Lehman, 2001). Current news articles provide one such possible source of readily available, contemporary and varied material.

Further study with a larger scope in terms of the range of articles, variety of students, and sample size would be beneficial to further investigate the relationship between interest and prior knowledge. Moreover, the use of extended interviews covering a larger student sample to delve more deeply into the etiology of interest and prior knowledge and advance the understanding of the path through which interest and prior knowledge affect one another possesses prospects for rich future research. With growing consideration of the influence of interest and prior knowledge in EFL instruction and learning, there exists ample opportunity for researchers to further investigate the individual characteristics that mediate interest and prior knowledge in CALL settings.

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Appendix

Interest and Prior Knowledge Questionnaire

Student ID: _____

Major: _____

Gender: M F

Age: Years _____ Months _____

This questionnaire is being conducted for research purposes only. You are free to withdraw from participation at any point prior to completing and submitting this questionnaire or the reading and listening comprehension exercises. All results will be aggregated and participants' identities will remain anonymous. Your answers to these questions or the reading and listening questions have no influence on your grade for this course.

Please read the following headlines and descriptions of news articles and choose your response.

1. "Couple get married in Shrek costumes"

This article is about a couple that had a fairy tale wedding and got married while wearing costumes based on the animation movie Shrek.

I think this article will be interesting to read.

strongly disagree 1 2 3 4 5 strongly agree

I know a lot about the subject of this article.

strongly disagree 1 2 3 4 5 strongly agree

2. "Google investing \$1b in renewable energy"

This article is about how Google is investing over \$1billion in renewable energy (solar, wind etc.) to power it's data centers around the world and make them totally green.

I think this article will be interesting to read.

strongly disagree 1 2 3 4 5 strongly agree

I know a lot about the subject of this article.

strongly disagree 1 2 3 4 5 strongly agree

3. "Volunteering helps you live longer"

This article is about recently published research which suggests that people who do volunteer work lead longer and healthier lives.

I think this article will be interesting to read.

strongly disagree 1 2 3 4 5 strongly agree

I know a lot about the subject of this article.

strongly disagree 1 2 3 4 5 strongly agree

4. "Candy Crush Saga most downloaded app"

This article explains that the game Candy Crush Saga was both the number one downloaded and revenue earning app in the world in 2013 at Apple's App Store and Google's Play store.

I think this article will be interesting to read.

strongly disagree 1 2 3 4 5 strongly agree

I know a lot about the subject of this article.

strongly disagree 1 2 3 4 5 strongly agree