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Olga Georgiadou is Research Assistant at Cyprus University of Technology Language Centre and French instructor at university level. She developed blended courses for French and participated in the development of an independent learning course for English. She specializes in CALL, Blended learning, Mobile learning and Language Learning and Evaluation. She has worked in the piloting of an English Language Independent Intensive course, and a Mobile Learning ORF project using iPod Touch and in the establishment of a Cooperative and Interactive Language Centre.

Yiannis Mallouris is Research Assistant at CUT Language Centre. As a Multimedia Specialist, he has collaborated in the creation of online courses on the Moodle platform for EAP and ESAP courses, in the pilot Mobile Learning ORF project using iPod Touch and in the establishment of a Cooperative and Interactive Language Centre. His research interests include the use of interactive video and 3D animation in language learning. He specializes in multimedia content creation.

SUMMARY

Title: iPod Impact on Oral Reading Fluency of University ESAP students

Keywords: Oral reading fluency, iPod Touch, English for Specific Academic Purposes

Abstract: This study aimed to determine whether the use of an iPod-based independent, out-of-class Repeated Reading activity would have an impact on English for Specific Academic

Purposes students' Oral Reading Fluency (ORF). The research framework included Activity Theory and formative experiment method. Fifteen students worked for six weeks. They used three texts, during two weeks for each one. During the first week of each text, students recorded their first reading using Dropvox. During the second week, they listened to each text, performed by a native speaker, and practised their ORF repeatedly before uploading their recording. Curriculum-Based Measurement / ORF, adapted by Rasinski (2004), was used to measure students' automaticity (speed and accuracy), and an adapted version of Zutell and Rasinski's (1991) Multidimensional Framework to measure prosodic features of fluency. Data analysis revealed that the independent out-of-class use of iPod helped in increasing students' automaticity and improving their prosodic features of fluency.

Short Paper:

Introduction

During spring semester 2012, Cyprus University of Technology Language Centre realized that many English for Specific Academic Purposes: Communication and Internet Studies (ESAP: CIS) first-year students needed more practice in Oral Reading Fluency (ORF) and that the ESAP: CIS course lacked systematic ORF practice; therefore action needed to be taken to remedy this matter. The aim was to explore whether and in what extent the provision of after class support through the use of repeated reading instructional technique and iPod technology could improve student ORF. Building on previous research on ORF models (The National reading Panel, 2000; Samuels, 1997), an independent, ORF program was developed. The *ESAP: CIS ORF iPod Program* was designed based on Activity Theory (Mwanza and Engestrom, 2003).

Instructional Method, Measurement Tools, Data Analysis and Discussion

Three authentic text types of B1 Common European Framework of Reference (CEFR) level were used. The topics derived from those covered in the ESAP: CIS course. Apple iPod technology and a selection of software were used during the six-week project. This technology allowed the fifteen students to have access to models, practice, record, and upload their readings using VoiceMemo, Dropbox and DropVox.

To determine whether students' ORF improved, their reading Automaticity and Prosody were assessed. Curriculum Based Measurement (CBM) and Multidimensional Fluency Scale (MFS) were used to measure these ORF dimensions.

A. Automaticity

Broadly accepted measure of ORF, CBM measures two aspects of automaticity:

- a. (a) Speed or rate of correct words per minute (CWPM) quantitatively;
- b. (b) Accuracy, both quantitatively, by establishing the number of correct words decoded and recognized per minute, and qualitatively by establishing the types of errors student make while reading (Rasinski, 2004).

1. Rate

Participants showed significant reading rate growth from the first (R1) to the second (R2) reading of each text in Words Per Minute (WPM) and CWPM. This was also evident from the average WPM and WCPM from R1 to R2 of all three texts:

Table 1 Average Words per Minute and Correct Words per Minute

	Average WPM			Average CWPM		
	<i>Total (R1 & R2)</i>	R1	R2	<i>Total (R1 & R2)</i>	R1	R2
1st text	125	119	132	116	108	144
2 nd text	158	152	164	151	144	159
3rd text	145	139	150	137	131	144
All texts	143	137	149	135	128	142

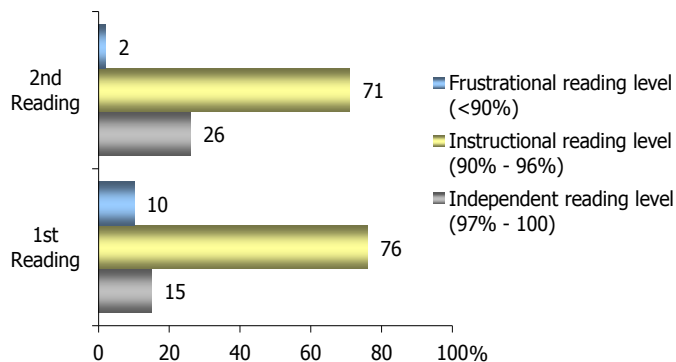
2. Accuracy

(a) CWPM

The levels of Performance (Independent Level: 97-100%; Instructional Level: 90-96%; Frustration Level: <90%) reflect various levels of word decoding accuracy (CWPM) (Rasinski, 2004).

ESAP students' level of performance for word decoding from the first to their second reading improved: The percentage of ESAP students at Frustration reading level, who find texts too challenging to read decreased; although the percentage of students at Instructional level, who are able to read texts with some assistance decreased, the students at Independent level, able to read texts without assistance increased (Rasinski, 2004):

Graph 1 Levels of performance for word decoding – Accuracy (all texts)



(b) Accuracy: types of errors

The five different types of errors (Hasbrouck, 2005) were identified. The most common type made by the participants was mispronunciation (62%) or substitution of words (17%) and hesitations or no attempts (7%). There were hardly any omissions or word reversals:

Table 2 Types of errors

	<i>Total</i>	R1	R2
	(All tests)		
Mispronunciation	62%	61%	64%
Substitutions	17%	18%	15%
Hesitation/ No attempts	17%	18%	16%
Omissions	3%	3%	3%
Word reversal	1%	1%	2%

B. Reading Prosody

The adapted version of Zutell and Rasinski's (1991) MFS of 1 to 4, with 1 being the lowest and 4 being the highest was used to measure qualitatively ESAP students' prosodic features of fluency. In this project, negative transfer was also measured.

On the whole, students' prosodic fluency improved in all dimensions from the first to the second reading of each text: expression and volume, phrasing and information and smoothness percentages moved from all levels to the last three levels. Although pace percentages still appeared in all four scales, on the whole they improved. Interestingly, although there was a shift from scale 2 and 3 to 4, which is the highest, 43% remained in scale 1, the low scale:

Table 3 Prosodic Dimension of Fluency

Dimensions	1	2	3	4
Expression and volume				
First reading*	24%	38%	33%	5%
Second reading*	-	40	32	28
Phrasing and information				
First reading*	27%	34%	37%	2%
Second reading*	-	34%	37%	29%
Smoothness				
First reading*	20%	39%	37%	5%
Second reading*	-	29%	39%	32%
Pace				
First reading*	15%	32%	44%	10%
Second reading*	2%	17%	32%	49%
Negative transfer error				
First reading*	43%	29%	29%	-
Second reading*	43%	-	-	57%

*all texts

Conclusion

This research revealed that the provision of out-of-class support through the use of an iPod technology-based independent, Repeated Reading instructional technique had an impact on ESAP: CIS students' Oral Reading Fluency. Student automaticity (speed and accuracy) increased over the period of the iPod project and the prosodic features of students' fluency improved.

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