

Supportive Technologies for hard of hearing individuals

This article presents an electronic platform, which acts as a supportive tool for learning-education, supporting and intervention for hard of hearing individuals. The aforementioned activities are included in the e-psychology activities and hence can be considered as a supportive tool for both e-learning and e-psychology for these individuals. Within the platform, lessons in the Sign language were developed and used, which deal with the usage and exploitation of ICTs and even e-commerce. The development of these lessons was based on multimedia technologies such as visual material, streaming digital video and video conference. The implementation of this platform was based on two axes-ideas. The first deals with the usage of ICTs as a tool in order to expand the communication abilities of the hard of hearing and as an intervention tool for the improvement of their equal access to: education, knowledge and employment. The second deals with the usage of ICTs' as learning objects in order to exploit them, enhancing hence their vocational life, ensuring their equal access to continuous vocational training without any form of discrimination, developing their enterprising and competitiveness skills through ICTs, expanding their vocational horizon and finally, developing their professional skills through the ICT tools.

Supportive Technologies for hard of hearing individuals

**A.S.DRIGAS, Y.VRETTAROS,
D.KOUREMENOS,
L.G.KOUKIANAKIS,
P.D.STAVROU**

BRIEF

- ◆ This article presents an electronic platform, which acts as a supportive tool for e-learning-education, supporting and intervention for hard of hearing individuals.

Objectives

- ◆ **Distance and life-long training Environment:**
we developed distance and life-long training Environment for the deaf people in the e-commerce and new technologies sector via e-learning tools.
- ◆ **Equal rights :**
The support of the **equal rights** of Deaf people for their access and real attendance in the professional training.
- ◆ **New professional fields:**
The creation of a passage for these individuals into the **new professional fields** via their training with specialized knowledge and dexterities in the use of the continuously developing sectors of e-learning and electronic Trade (e-commerce).

Platform (1)

- ◆ Within the platform, lessons in the Sign language were developed and used, which deal with the usage and exploitation of ICTs and even e-commerce.
- ◆ The e-Learning environment for the Deaf People is adapted to their capabilities and communication abilities via the Sign Language. The environment is based on the usage of the advanced teleconference services of Internet (network virtual classroom) and offers a sum of facilities and services that are able to support, via an easy and friendly way, education and training in the form of life long and continuing education for the Deaf People.

Platform (2)

The screenshot shows a web browser window displaying the e-Delfe DELFE Course Server website. The browser's address bar is empty, and the toolbar includes standard navigation icons. The website's header features the e-Delfe logo and the text 'DELFE Course Server'. A navigation menu contains links for 'Τα Μαθήματά μου', 'Προτιμήσεις', 'Προφίλ', 'Εξερεύνηση Μαθημάτων', 'Αναζήτηση', 'Εισερχόμενα', and 'Βοήθεια'. A user login area on the right shows 'Συνδεδεμένος ως: student' and 'Αποσύνδεση'. The main content area is titled 'ΕΙΣΑΓΩΓΗ ΣΤΟ INTERNET' and includes a navigation bar with 'Αρχή', 'Εργαλεία', 'Πόροι', 'Συζητήσεις', and 'Χάρτης Ιστόχωρου'. A yellow 'voigra Μενού' button is visible, with 'Επόμενο: 1 Καλώς Ήρθατε' below it. The main content area contains a home icon and the title 'ΕΙΣΑΓΩΓΗ ΣΤΟ INTERNET'. Below this, there is a video player showing a man clapping, with a play button and volume controls at the bottom. To the left of the video, the text reads: 'Καλώς Ήρθατε. Αυτό είναι κάποιο προσιλεγμένο περιεχόμενο. Δείτε [Περί Βοηθειας](#) για πηγές πληροφοριών σχετικά με τη χρήση του συστήματος.' At the bottom of the page, there is a footer with the text: 'Μετάφραση σε: [English](#) | [Dansk](#) | [Greek](#) | [Français](#). Web site engine's code is copyright © 2004 eDelfe®. [Περί eDelfe](#). Για γενική βοήθεια περί της χρήσεως του συστήματος επισκεφθείτε το επίσημο [eDelfe μάθημα](#).' The date 'Βανάλη Πέμπτη Δεκέμβριος 23, 2004' is also visible in the footer area.

Axes-ideas (1)

- ◆ The first deals with the usage of ICTs as a tool in order to expand the **communication abilities** of the hard of hearing and as an intervention tool for the improvement of their **equal access** to: **education, knowledge and employment.**

Axes-ideas (2)

- ◆ The second deals with the usage of ICTs' as learning objects in order to exploit them, enhancing hence their **vocational life**, ensuring their **equal access** to **continuous vocational training** without any form of discrimination, developing their enterprising and competitiveness skills through ICTs, expanding their vocational horizon and finally, developing their **professional skills** through the ICT tools.

Products - 1

- ◆ “Introduction to Internet”
- ◆ lessons in real classroom

Products - 2

- ◆ “Introduction to E – learning”
- ◆ lessons in real classroom.

Products - 3

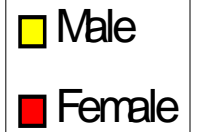
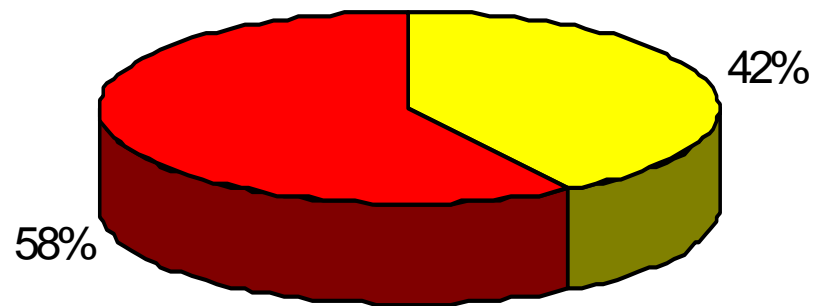
- ◆ “Introduction to Internet”
- ◆ lesson in Virtual Classroom.

Products - 4

- ◆ E- commerce
- ◆ lessons in Virtual Classroom.

Sex

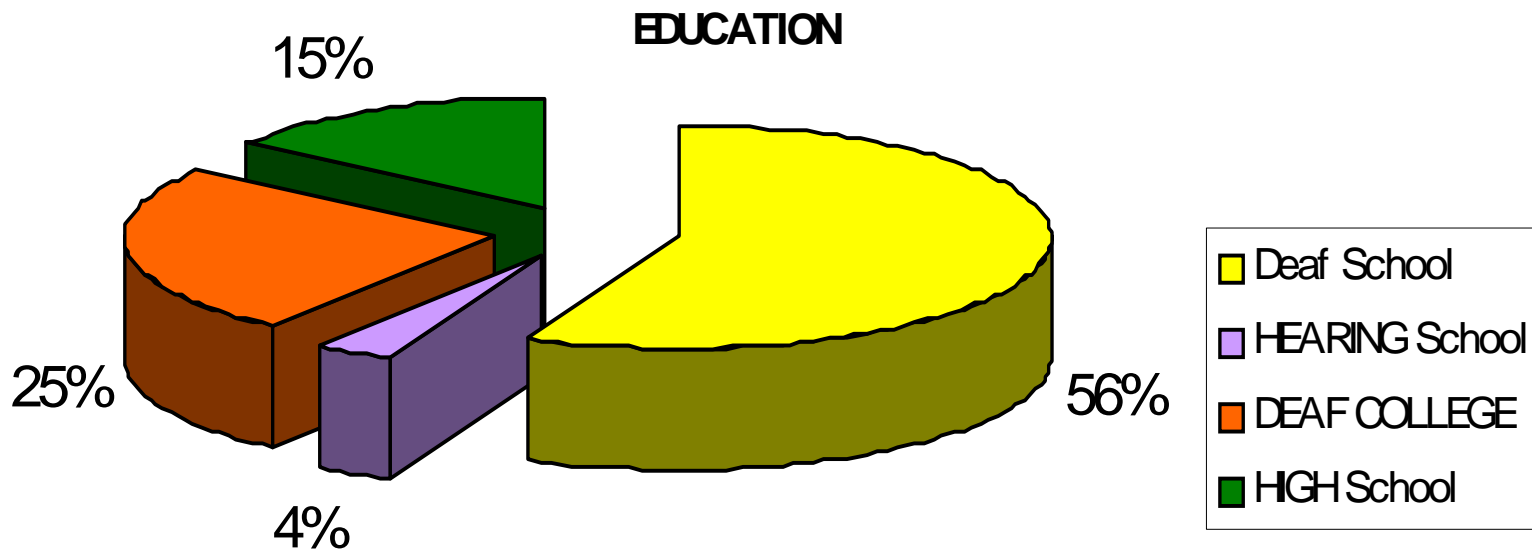
SEX



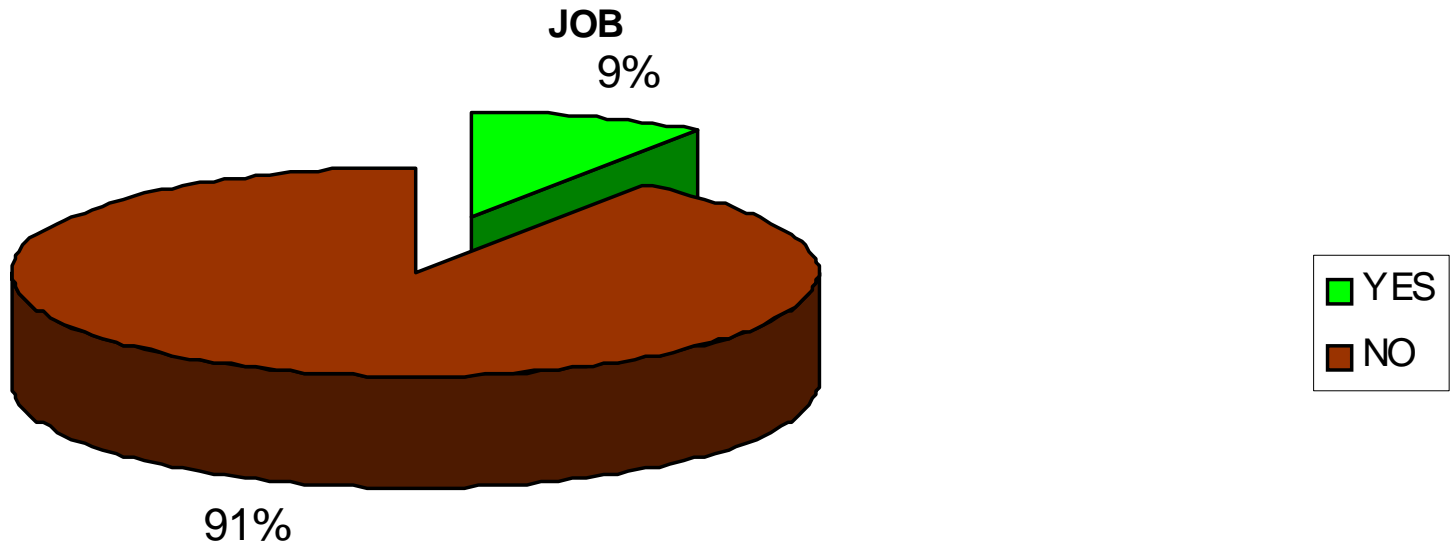
Age



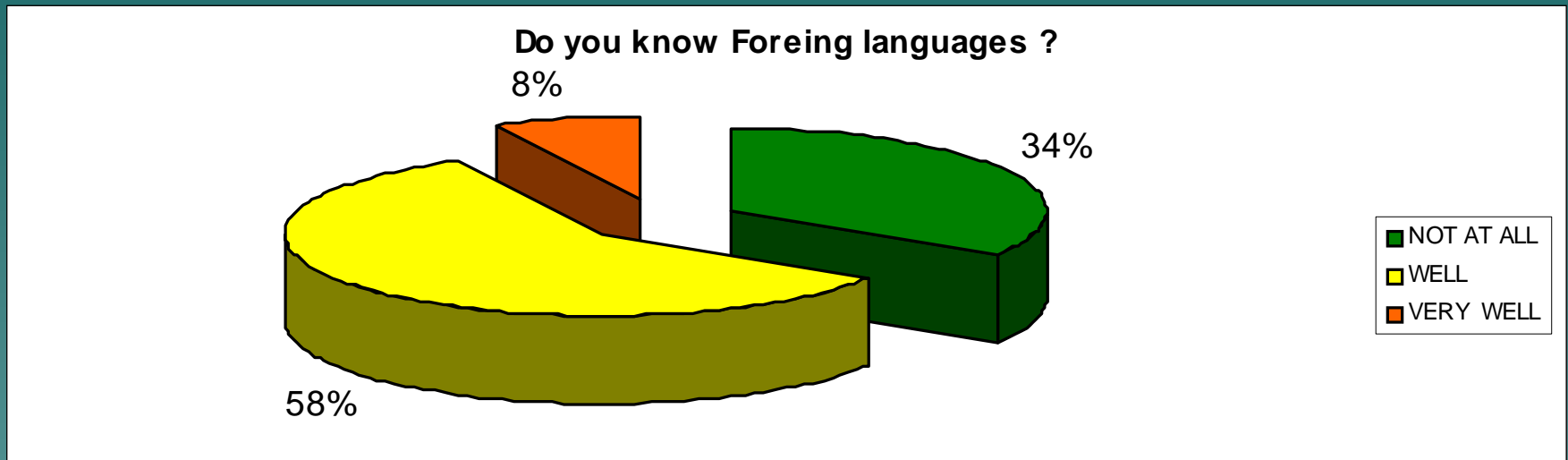
Education



Job

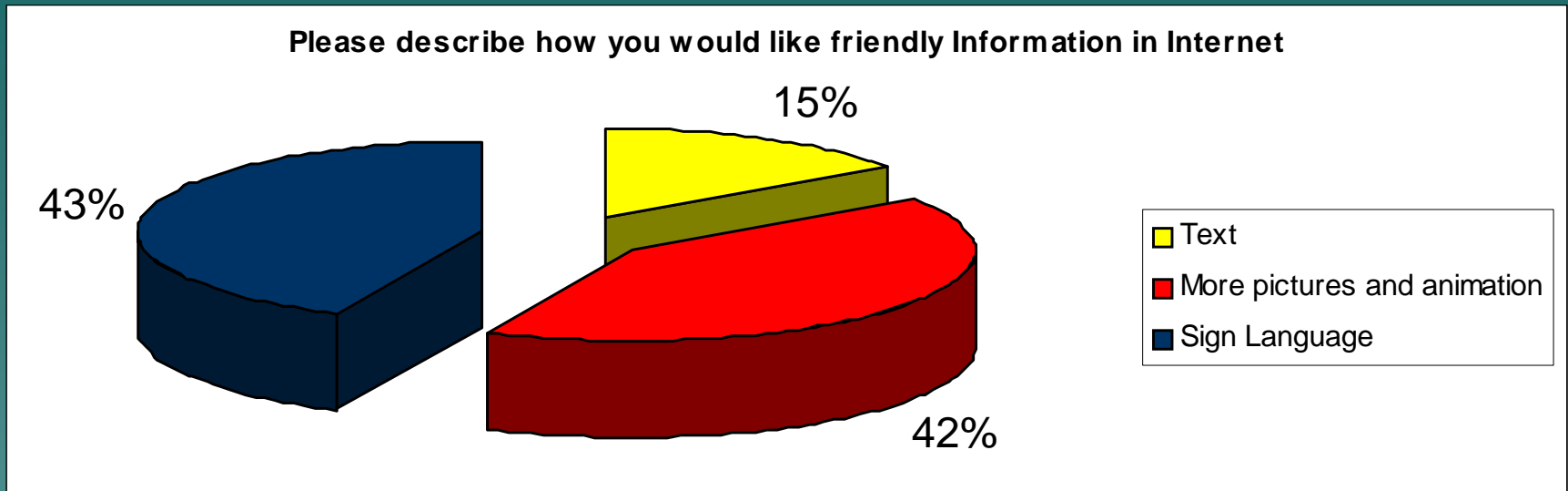


Linguistic dexterities



- ◆ The deaf individuals do not have the linguistic dexterities for the use of possibilities of internet.

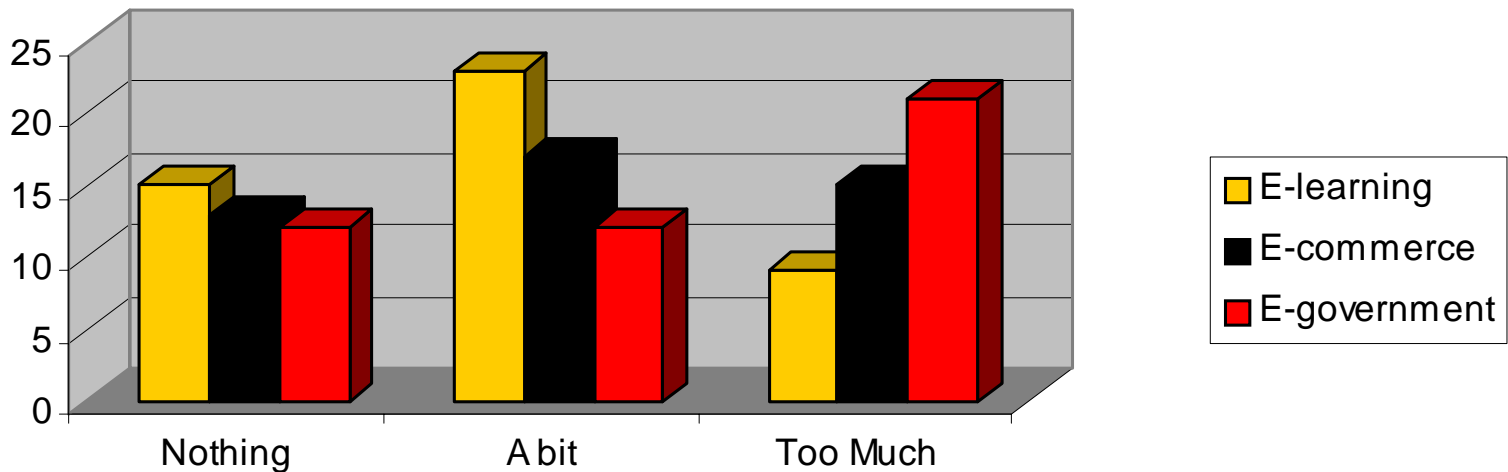
Sign Language



- ◆ The Sign language constitutes the best way of facilitation of hearing impaired in the use of technological possibilities of internet.

Future

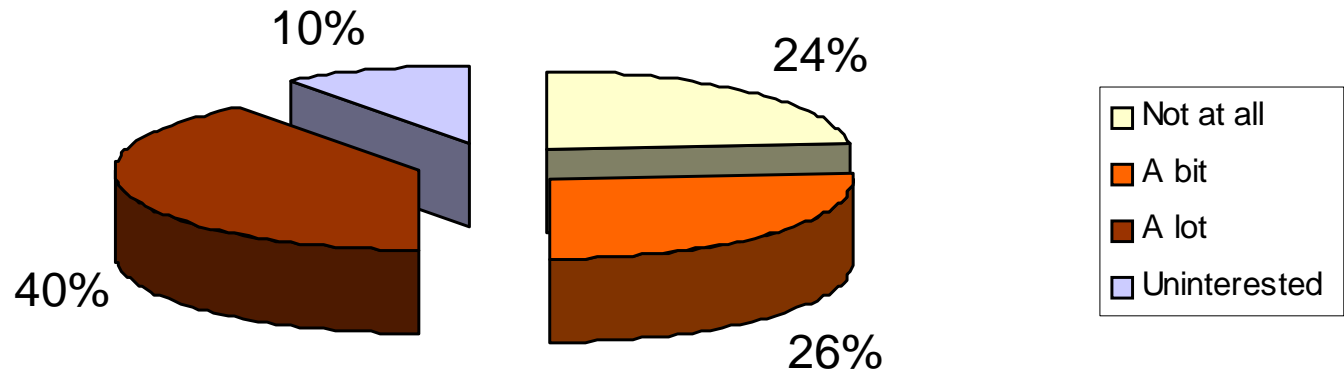
Are you interesting in the future to learn one or all of the below ?



- ◆ The deaf individuals have particular interest they are educated in future in the use of applications e - learning, e- commerce and e- government

Results

Do you believe that the e-learning, e-commerce, e-government and other e-services would help you in your job?



- ◆ The deaf individuals believe that the use of new technologies, is importance for their professional integration and improvement

Problems and limitations

- ◆ In some areas of the language there are no standardized signs, so there may be some theoretical objections as to the use of particular entries.
- ◆ DSL links of at least 384Kbps are considered as the minimal requirement for a Sign Language Virtual Classroom

THANK YOU.

You can visit
DELFE web site :

<http://imm.demokritos.gr/DELFE/>