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**e-Learning and the aspect of students
in forestry and environmental studies.**

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Introduction

new Information and Communication Technologies (ICT's),

No progress in the new Information and Communication Technologies (ICT's) would matter if there wasn't a specific application, with impact on society and on important aspects of human activities, and specifically understanding and total quality management of the environment with people learning about the natural environment and following practices which will lead to co-existence with it by pursuing sustainable development.

Agroforestry

Objectives

capture the perspectives on e-learning for environmental issues in European Union,

while in more details it is attempted to describe modern technology on the e-learning

presentation of modern tools,

description of the current situation about e-learning and especially in the EU and Greece.

survey took place amongst students of Faculty of Forestry and Natural Environment, about their views on e-learning issues in relation to their integration into the curriculum.

Methodology

method of questionnaires to students in
School of Forestry and Natural Environment.

period from May to September 2014.

Sample Size

$$n = \frac{N}{1 + N * e^2}$$

n is the sample size,
N is the number of the population of interest,
e the precision level (level of precision = 0.05)
with 95% confidence level and volatility P = 0.5.

number of students in Forestry school is N= 732
sample size=259.

Results (e-learning perspectives)

The context of e-learning has the potential to provide guidance to :

1. planning and designing e-learning materials,
2. the organization of resources for e-learning environment,
3. the design of distributed learning systems, corporate universities, virtual universities and cyberschools,
4. the design of LMS, LCMS and integrated authoring systems (e.g., Omni),
5. the evaluation of courses and e-learning,
6. the assessing of authoring tools / e-learning systems, LMS and LCMS.
7. the design and evaluation of blended learning environments.

Results (e-learning perspectives)

An LMS (Learning Management System)

is a course management system covering the learning needs of registered members.

It focuses more on learning information and less on learning itself.

It is software for the management, documentation, monitoring and reporting of training programs, online events, e-learning and educational content (Ellis, 2009).

Changes susceptible to the system are limited, likely to create problems regarding the adjustment needed to meet the various needs of individual institutions that use it.

One of the most famous used in Greek higher education are the Open eClass, Moodle, BlackBoard, Sakai, Scientix etc.

Results (e-learning perspectives)

The Content Management System (CMS)

is a form of computer software that automates the creation, organization, control and publication of content in a variety of forms.

Most CMS have the ability to manage content in the following formats: text, images, video, java animation, design patterns, databases etc.

Many times a CMS allows the creation of a group of texts and other material and that is why it is so often used, for example, in the educational programs of many companies.

A Web Content Management System and Web Publishing System is a form of computer software that provides additional features to facilitate the necessary work in publishing content online through a website.

Some of the most popular content management systems are WordPress, Joomla, Drupal, etc.

Results (e-learning perspectives)

Virtual Classroom

The possibility of video conferencing has created intense interest in the possibility of 'simulation' of the functions of the educational process, as it is carried out in normal rooms, in virtual classroom environment (virtual classrooms).

Just as the term virtual implies a reality simulation, the virtual classroom is a simulated classroom via Internet, which provides a comfortable communication environment just like in a traditional classroom.

A virtual classroom allows students to attend a course from anywhere in the world, and aims to provide a learning experience that is similar to a real class (Jadhav, 2006).

Results (e-learning perspectives)

Virtual Classroom

The main features of the virtual classroom are

the ability to engage multimedia experience, the removal of geographical constraints,
the ability of recording sessions,
the faster organising of courses,
the one-to-one communication,
is easy-to-use and
support what happens before and after a live session.

Utilizing greatly the possibilities presented by the new technologies, virtual classrooms offer high-level interactions and opportunities for collaboration, crucial elements for the acquisition of knowledge

The best known and most widely distributed virtual classrooms are Blackboard, WizIQ, moodle Udemy, Peer 2 Peer University (P2PU) Learnopia etc.

Results

Current situation in Greece, European Union and U.S.A.

United States of America:

65% of university colleges in the USA in 2004 offered online undergraduate courses and postgraduate at a rate of 44%.

European Union:

The first attempt of teaching courses using synchronous e-learning was conducted by the Department of Information Systems University of Budapest (CUB) in students of University Seley Komano in Slovakia in 2000.

In May 2000, the European Committee proposed the e-learning initiative for achieving the objectives set by the Lisbon European Council, namely to make the European Union the most competitive economy in the world based on knowledge.

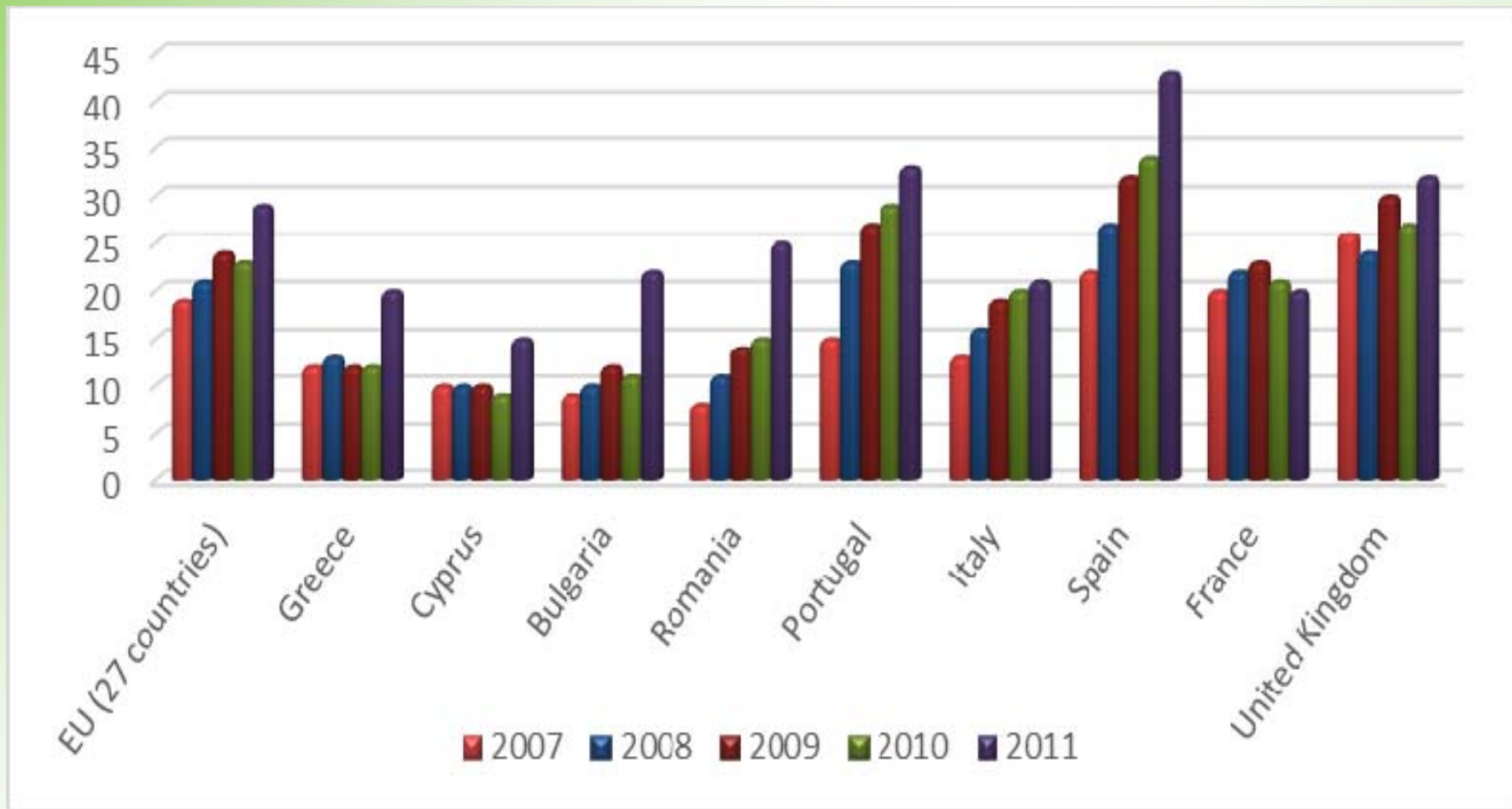
Greece:

The European policies are followed at a satisfactory pace.

The Greek School Network, the Greek Open University, but also vocational training programs of tertiary institutions and programs of public bodies are some of the steps that Greek organizations make on the path of e-learning.

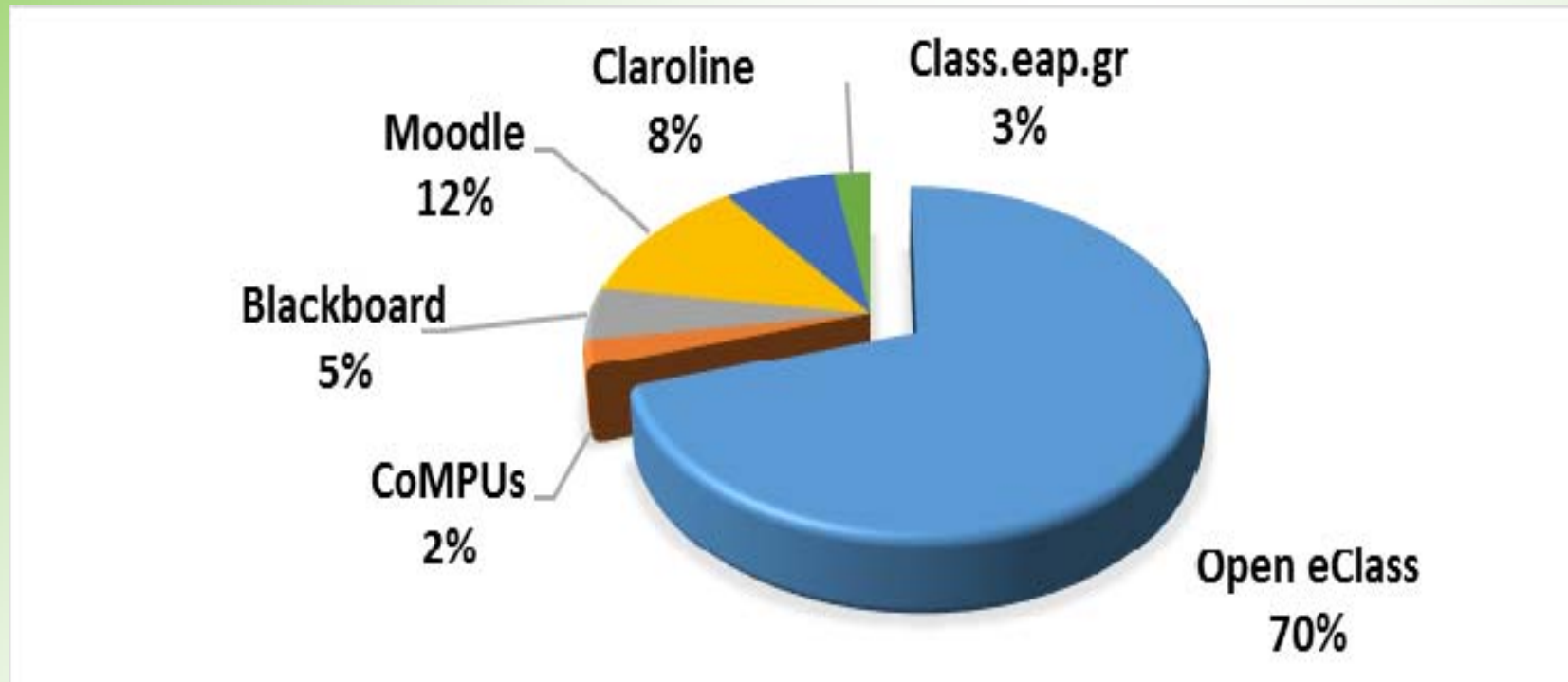
Results (survey)

People using the Internet to search information on education (2007-2011)
percentage of people aged 16-74 years, in countries of Southern Europe,
the Balkans and the Eastern Mediterranean. Source: (Eurostat, 2013)



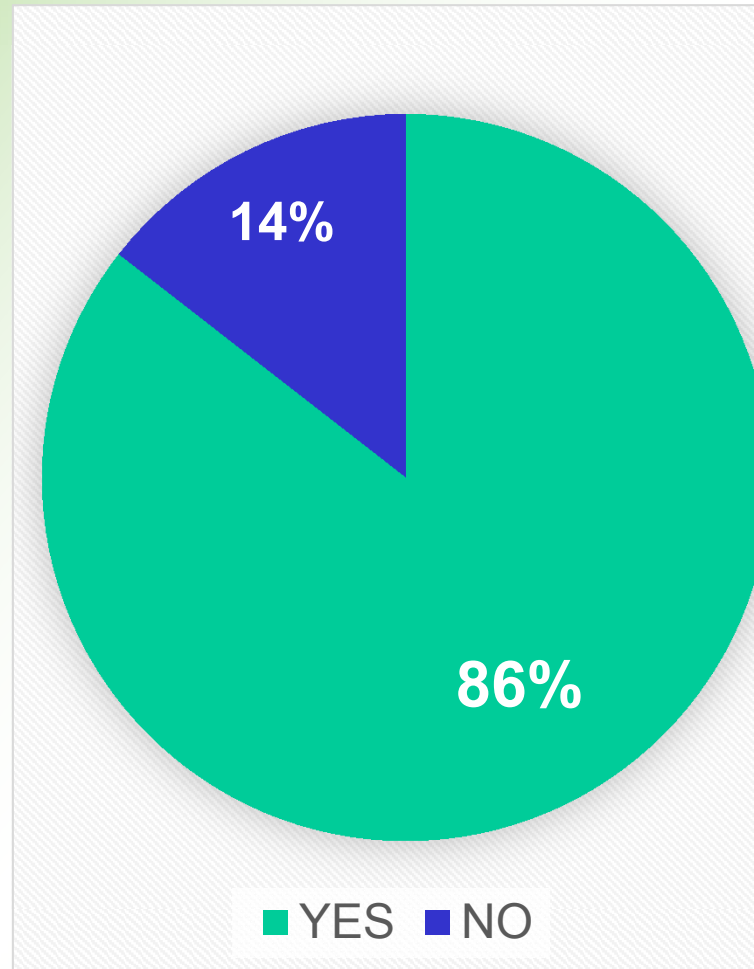
Results (survey)

E-learning platforms in Greek higher education



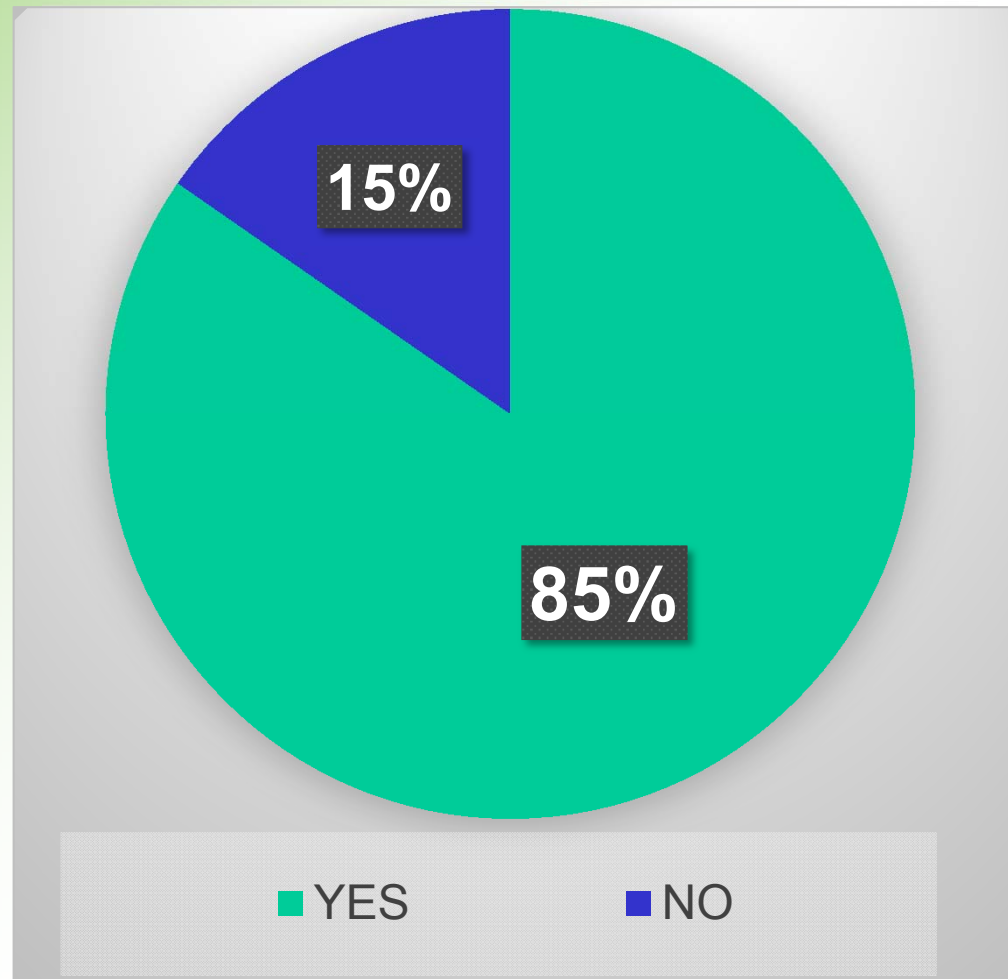
Results (survey)

Use of social networking



Results (survey)

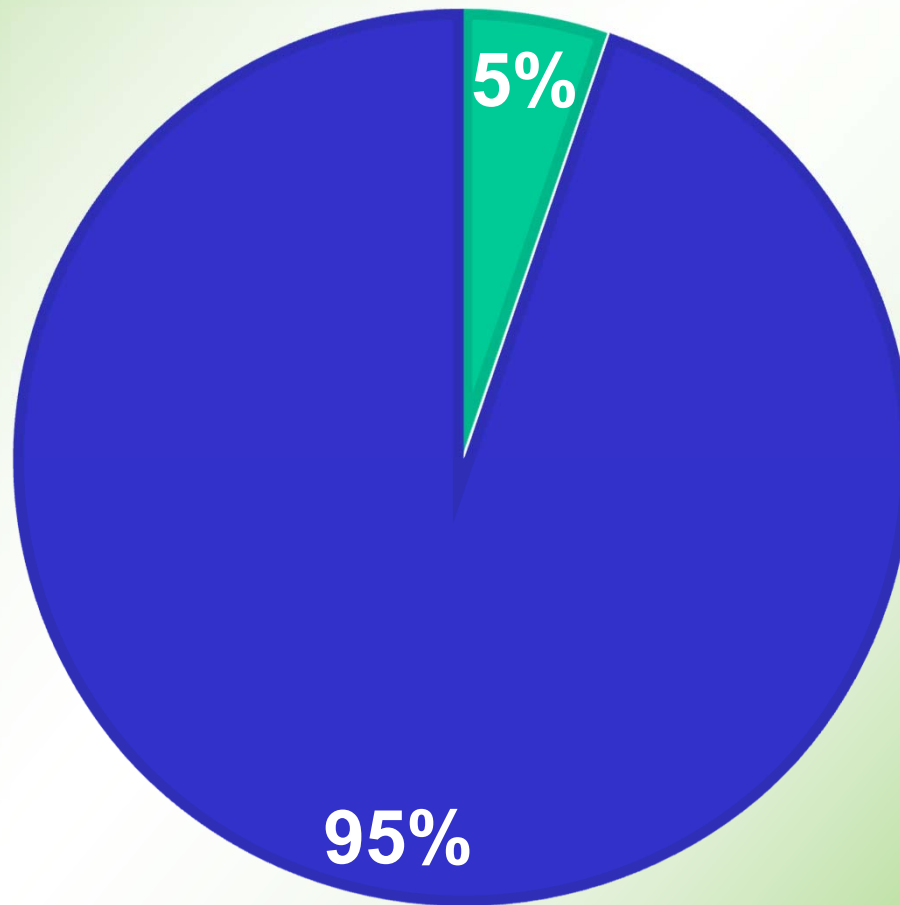
USE OF INTERNET VIA MOBILE OR TABLET



Results (survey)

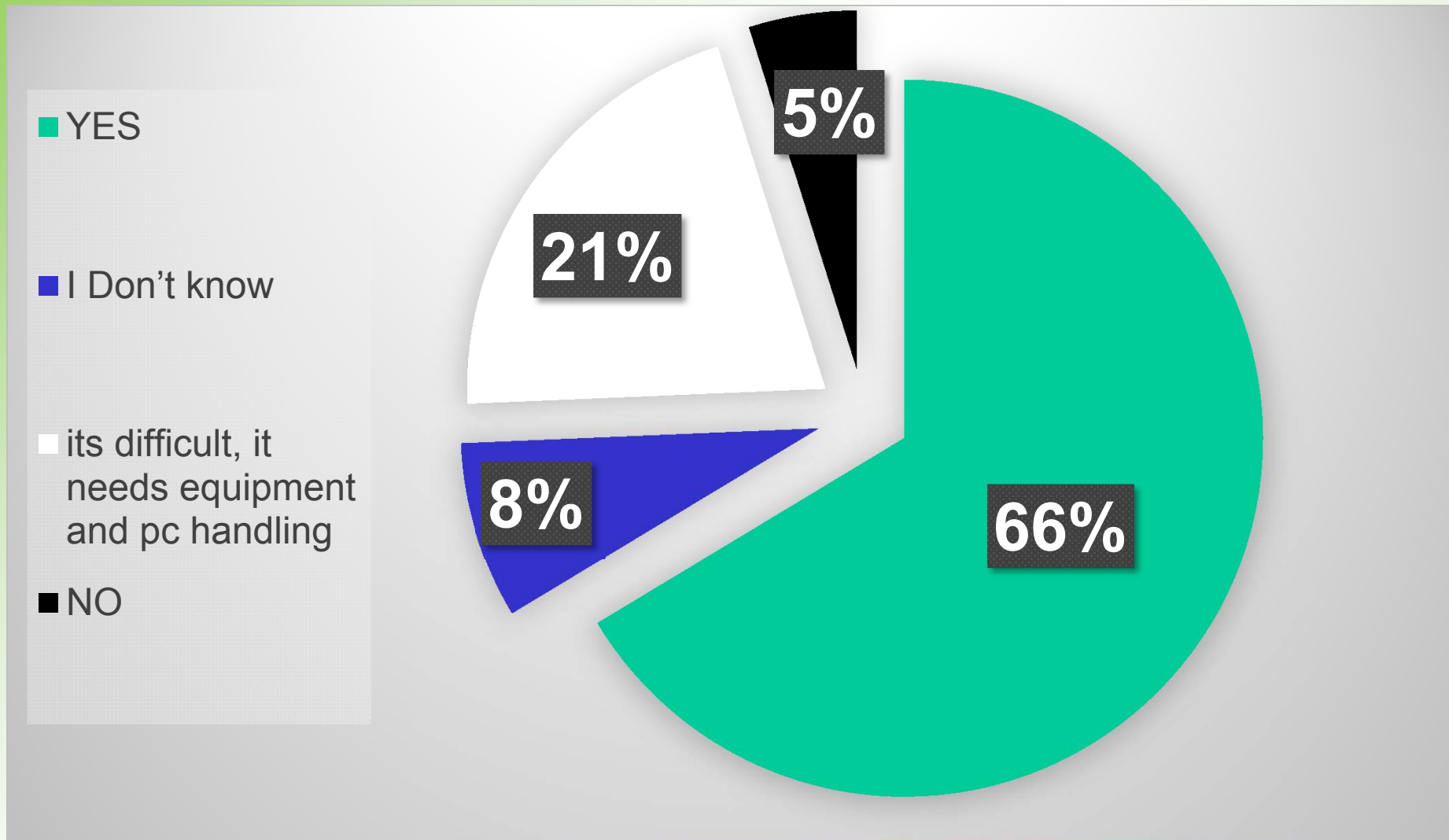
ATTENDED DISTANCE EDUCATION VIA E-LEARNING?

■ YES ■ NO



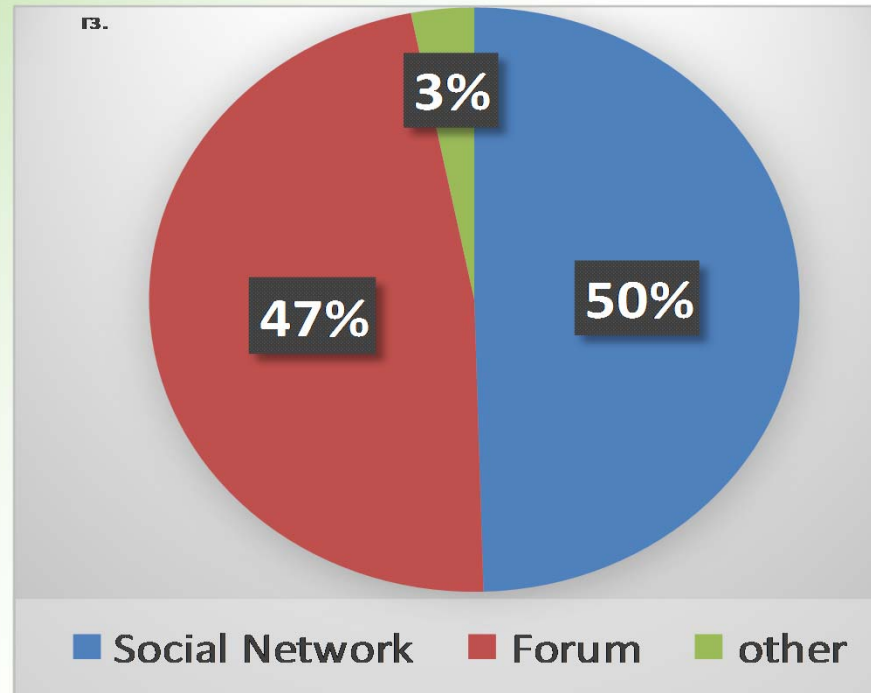
Results (survey)

new technologies and distance education to help lifelong learning?



Results (survey)

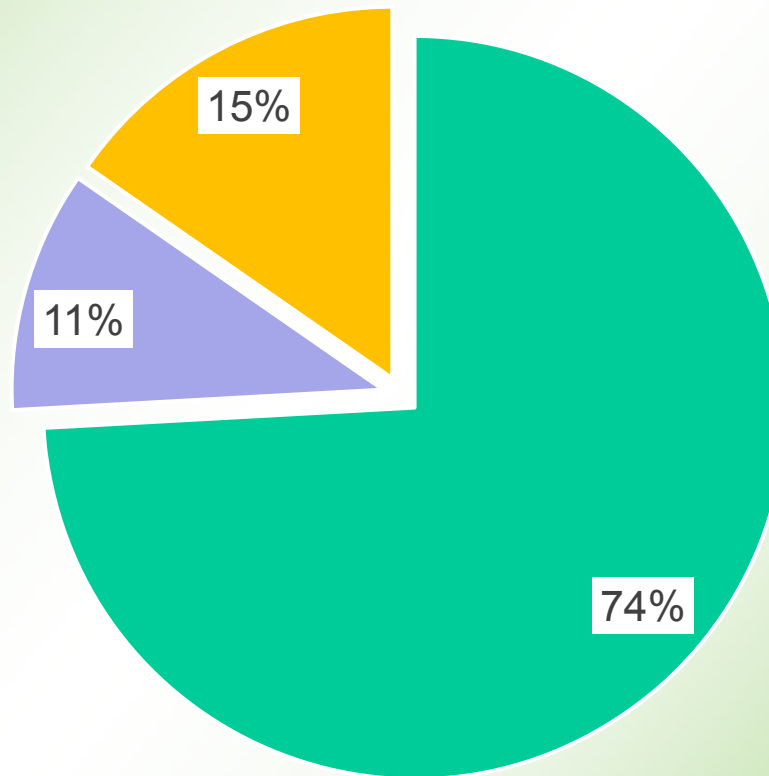
communication in e-learning
through a forum or a social network ?



Results (survey)

Would you like to have the usability of e-learning platform in a mobile or a tablet (mobile app)

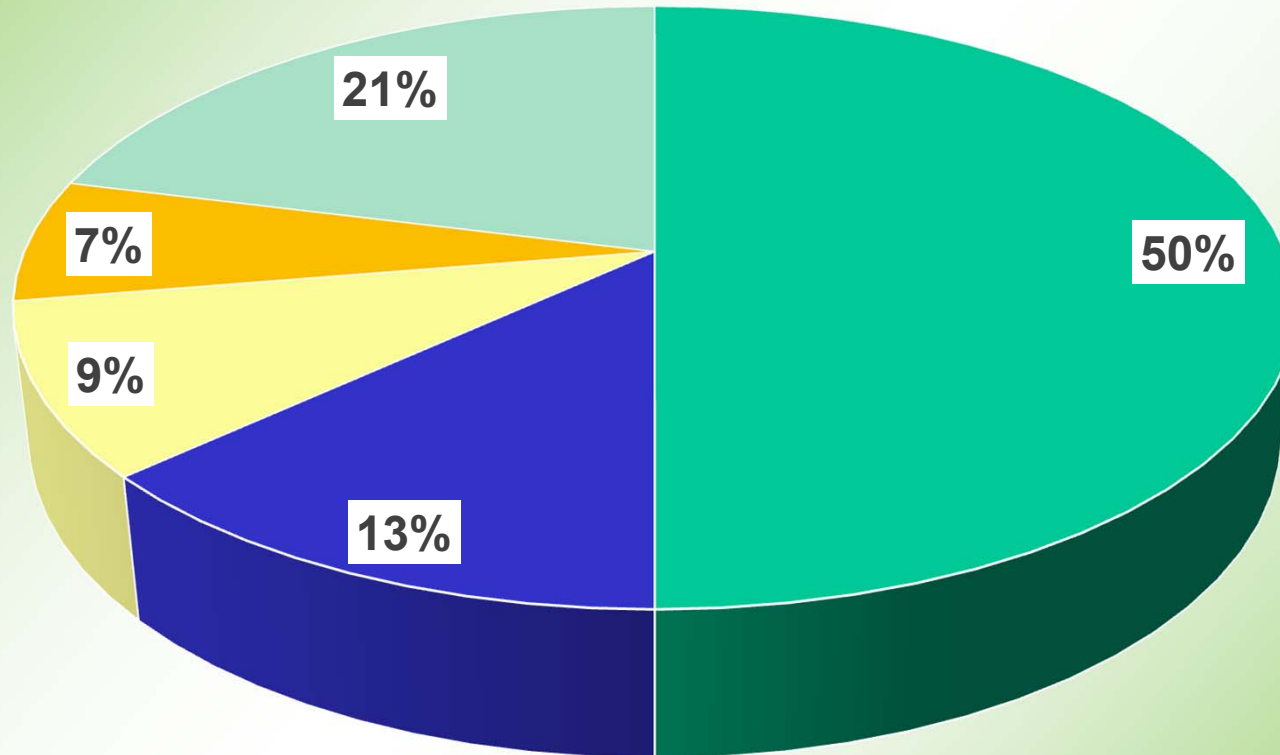
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■ Yes ■ No ■ I don't care

Results (survey)

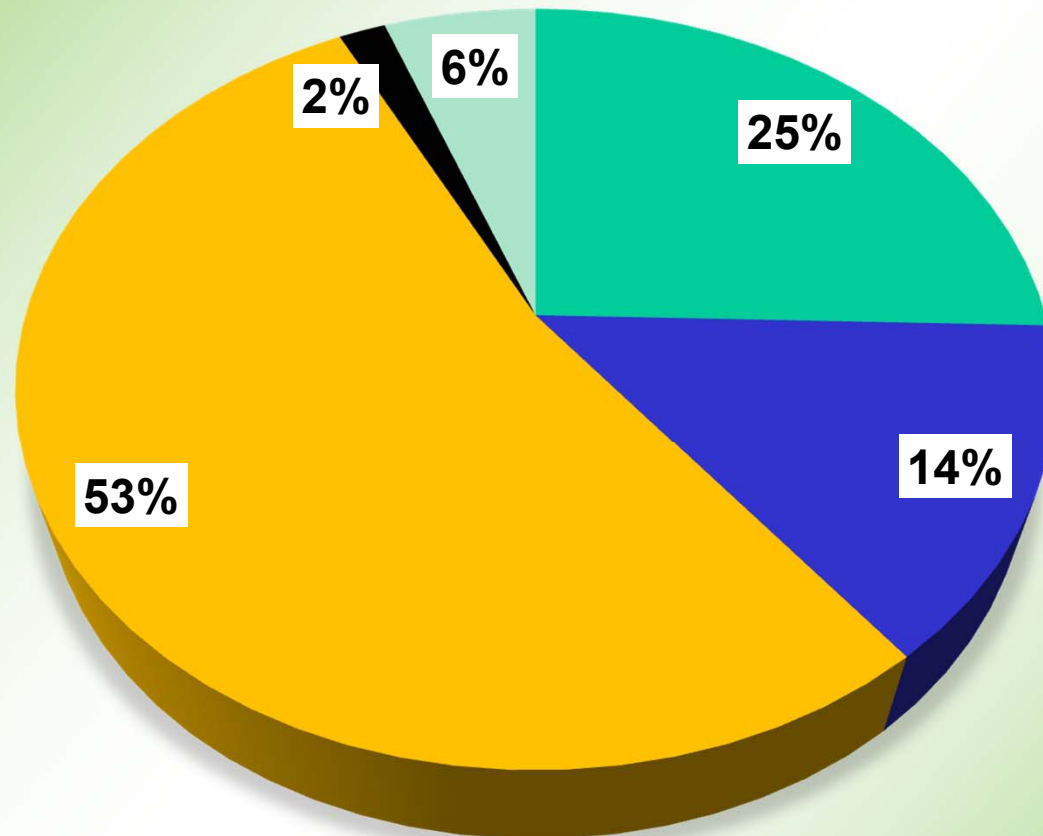
Evaluation pattern



- in classroom (traditional way)
- limited time on-line exam
- unlimited time on-line exam
- automatic feedback limited time on-line exam
- paper submission

Results (survey)

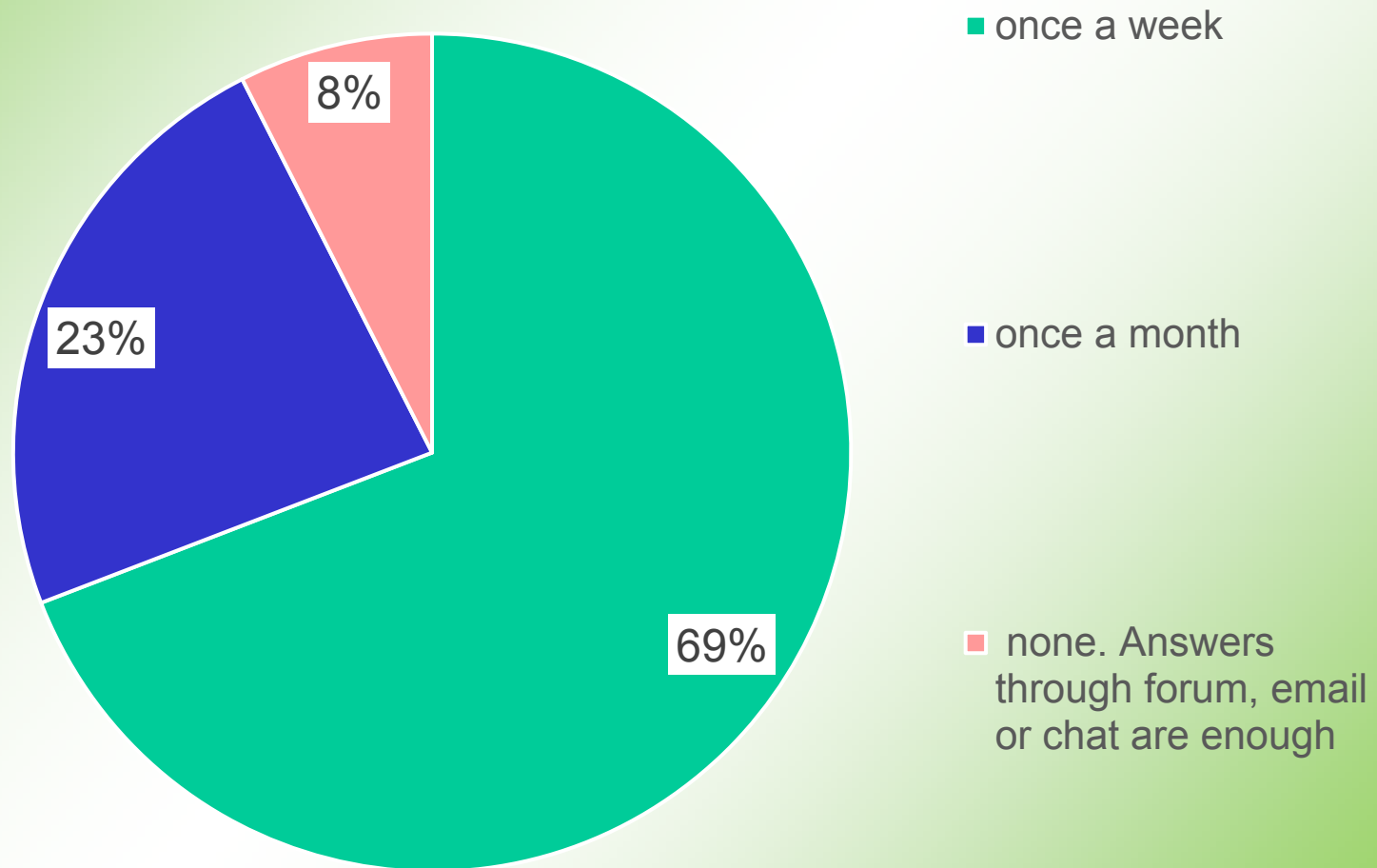
Is the physical presence of the instructor necessary for teaching geotechnical and environmental courses?



- no need for physical presence but he is only necessary for resolving questions
- he is only necessary for to transmit skills
- physically presence is essential
- no need for physical presence
- I do not know

Results (survey)

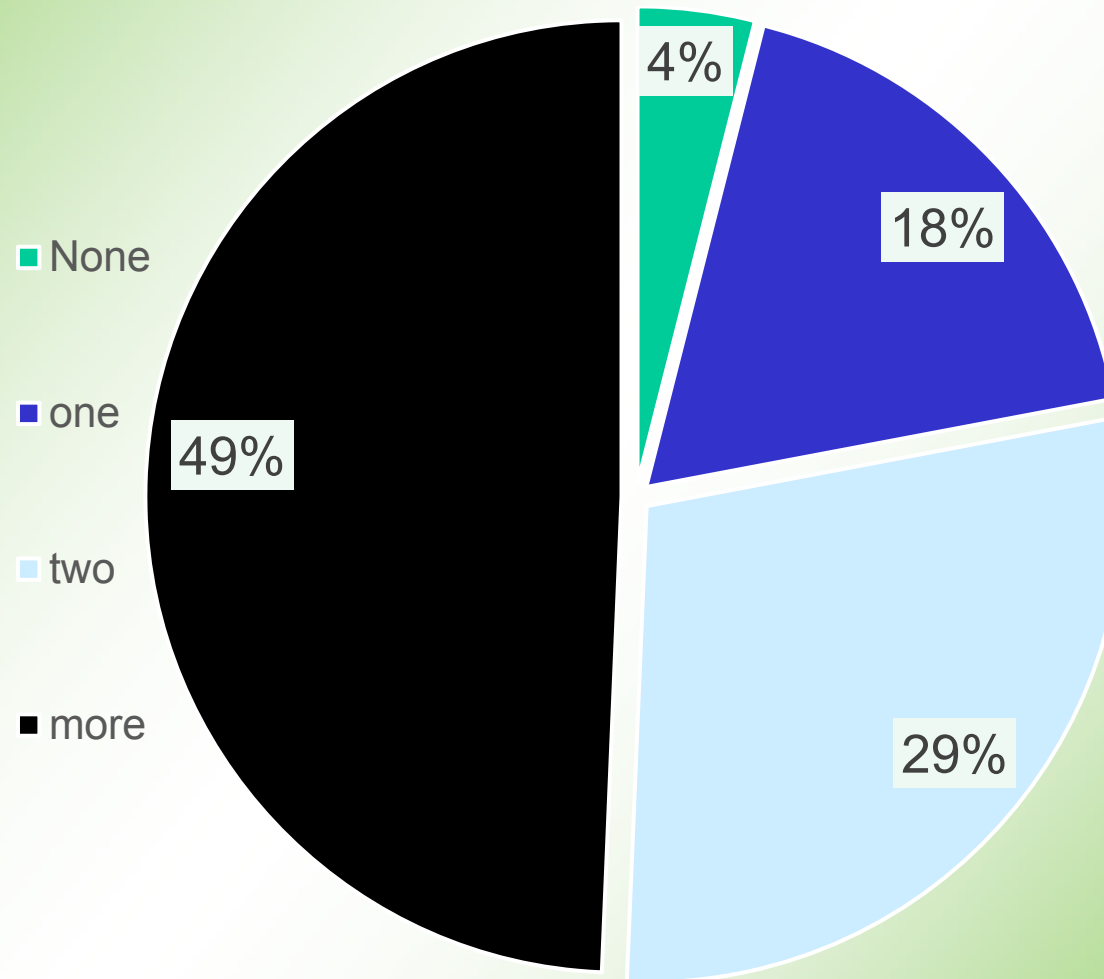
In an e-learning module, how often would you like to have audiovisual communication with the instructor?



r11.;

Results (survey)

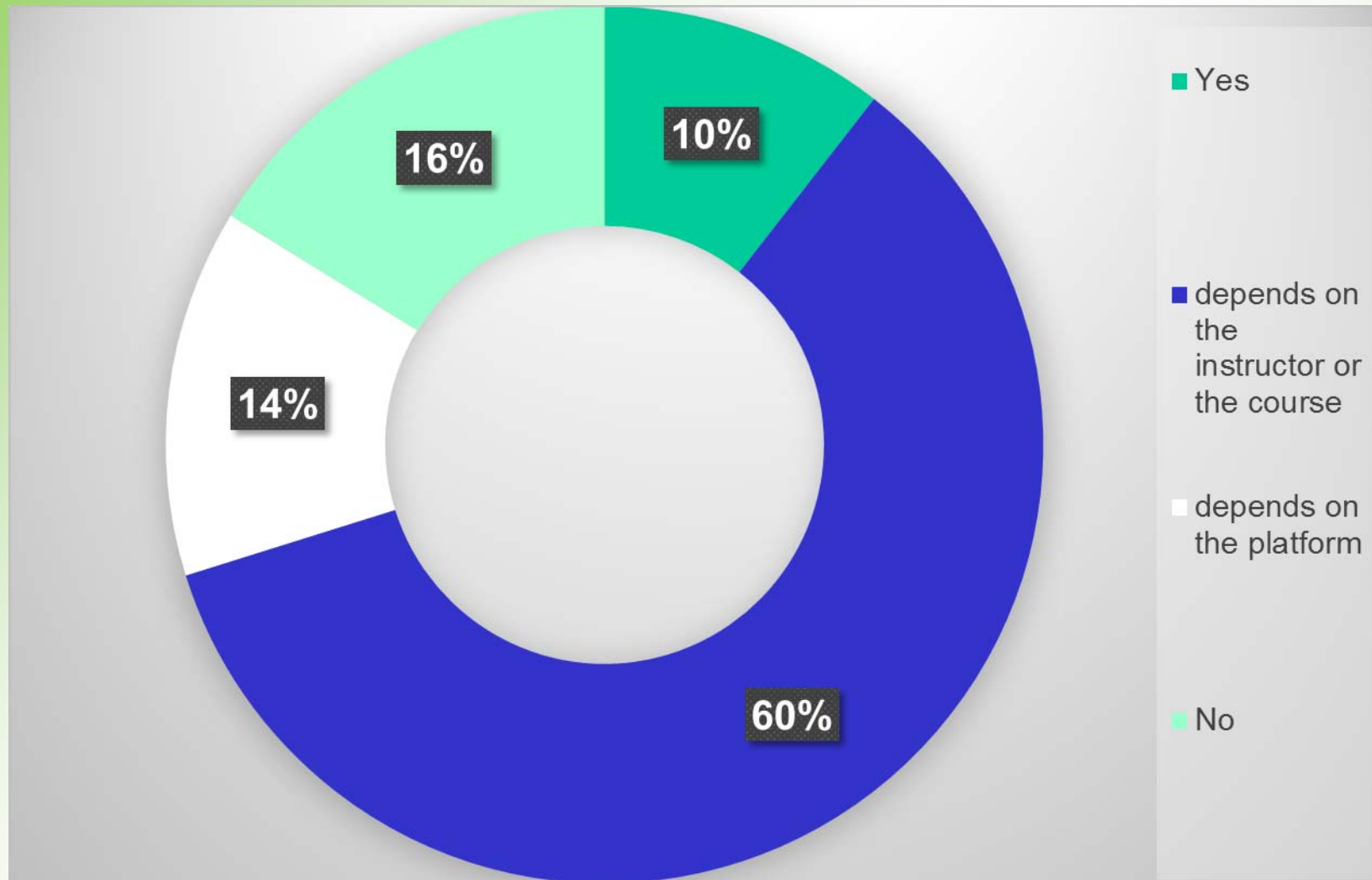
In an e-learning module, during a semester, how often would you like to be physically present with the teacher?



Γ13

Results

Could you attend successfully e-learning classes, for Horticulture and Forestry courses ;



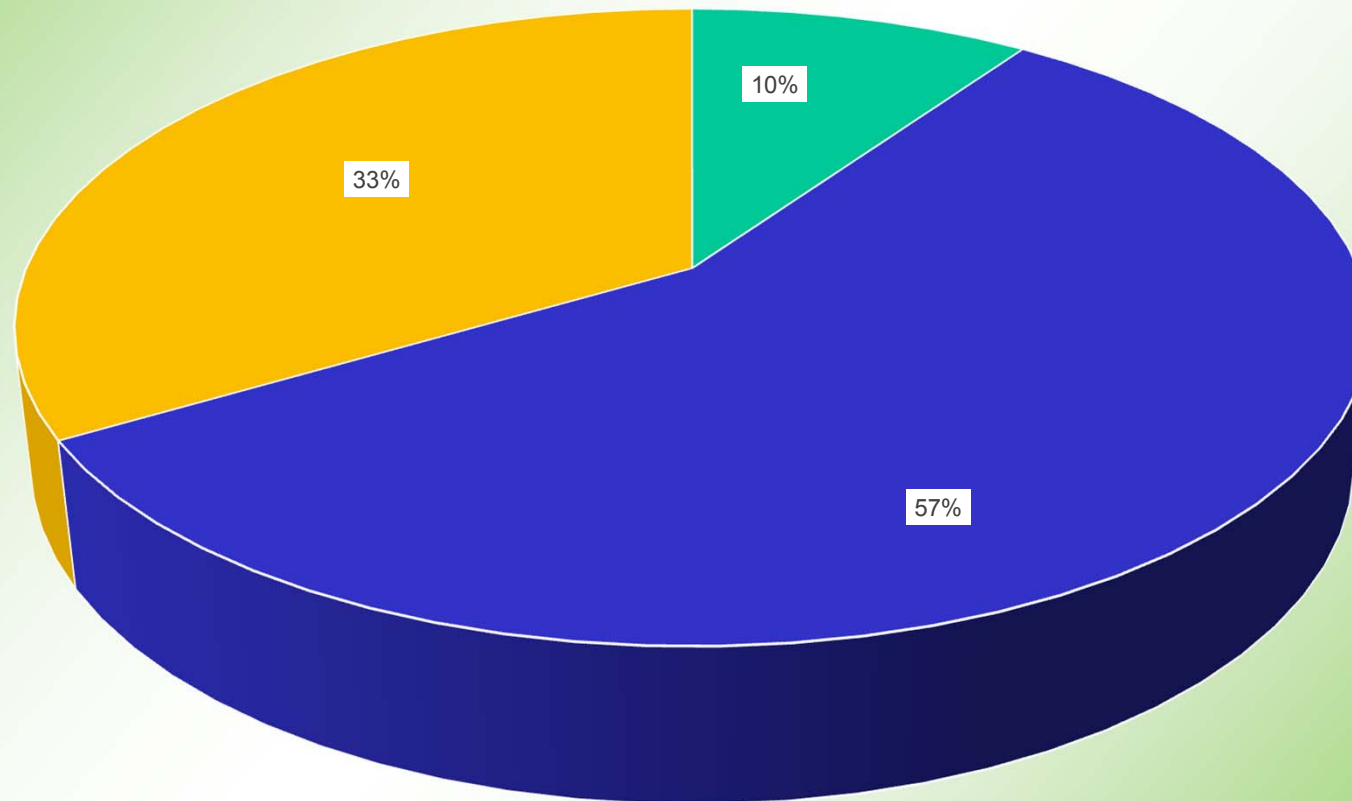
Results (survey)

Most significant rated characteristics in an e-learning session

<u>Characteristic</u>	<u>%</u>	<u>Characteristic</u>	<u>%</u>	<u>Characteristic</u>	<u>%</u>
Notes	86.4	Suggestions	53.1	Bibliography	42.5
Papers	75.1	Multimedia	52.2	Examinations	41.7
Contact by email	72.8	on-line papers	49.1	Tests	34.2
FAQs	63.6	Class discussions using chat room	48.6	Feedback	22.8
on-line help	60.5	Communication via on line bulletin board	45.6	Contact by SMS	19.3

Results (survey)

C14. In Which agroforestry system will be interested to learn more through an e-learning platform?



Silvoarable (57%) agrosilvopastoral (33%) silvopastoral (10%).

Discussion

- **A. The use of e-learning in Europe is generally very limited compared with the USA, but there are a lot of effort in that direction, in EU Council, so that such services are an important priority for the future.**
- **B. students of Forestry, are users of the Internet, but also of programs and applications of new information and communication technologies**
- **C. they have no experience in e-learning this urges them into conservative responses particularly in relation to**
 - **the presence of the teacher,**
 - **the pace of meetings with physical presence or via teleconference and**
 - **the examination pattern.**
- **D. The rest of the answers, however, can be considered a first step, a basis for how a module of an e-learning course should be structured and what it should contain.**
- **E. Agroforestry issues**

Discussion (2)

extend the research about agroforestry issues

include the views and opinions of students in agricultural

**the opinions of experts on the structure of the e-learning course,
provision for its needs**

structure and draft a comprehensive e-learning module



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Thank you for your time

**We would like to thank the organizing committee of AI 2014 conference
for giving us the opportunity to participate via tele-conference**

**best regards to all participants from
ARISTOTLE UNIVERSITY OF THESSALONIKI**