

Grant Agreement number: 128959-CP-1-2006-1-GR-COMENIUS-C21 2006 – 2518 / 001 – 001 SO2



Projet TERECoP

Teacher Education on Robotics-Enhanced Constructivist Pedagogical Methods

Recherche visant à développer l'usage d'activités robotiques assistées par ordinateur dans les domaines scientifiques et technologiques dans l'enseignement secondaire

TERECOP : Projet Comenius 2.1

▣ Programme Socrates : programme de coopération de l'Union Européenne dans le domaine de l'éducation

▣ Huit actions

Action 1 : Comenius : enseignement scolaire

C21 : formation initiale et continue du personnel participant à l'enseignement scolaire

Projet TERECOP

- ▣ Durée : **36 mois** (du 1er octobre 2006 au 30 septembre 2009)
- ▣ **8 Institutions** partenaires dans **6 pays** :
 - ASPETE, Patras, Grèce
 - IUFM d'Aix-Marseille, France
 - Charles University, Prague, République Tchèque
 - Université de Pitesti, Pitesti, Roumanie
 - Universidad Publica de Navarra, Pamplona, Espagne
 - Université de Padoue, Italie
 - IT Robotics srl, Vicenza, Italie
 - Museo Civico de Rovereto, Italie
- ▣ Coordonnateur : Pr Dimitris Alimisis (ASPETE)

Objectifs et activités du projet

▣ Objectifs

▣ Inspiré de théories constructivistes (Piaget, Papert), il vise à développer une formation initiale et continue des enseignants du secondaire en sciences et en technologie

▣ Il favorise les échanges d'étudiants dans les 6 pays

▣ Activités

▣ Élaboration de dispositifs de formation (activités robotiques assistées par ordinateur) et mise en œuvre de formations pour les étudiants et les stagiaires

▣ Évaluation de ces formations

▣ Harmonisation des pratiques

▣ Diffusion des résultats du projet à la communauté éducative

Résultats attendus

- ▣ **Élaboration d'une méthodologie** pour concevoir des activités de robotique assistées par ordinateur et centrées sur l'apprentissage constructiviste
- ▣ **Élaboration d'un programme de formation** pour enseignants et de supports d'apprentissage
- ▣ **Mise en œuvre de stages** de formation pour les enseignants
- ▣ **Harmonisation des pratiques** entre enseignants et formateurs (plate-forme eClass)
- ▣ **Mise en place d'un réseau international, publication** d'ouvrages, d'articles, **communications** dans des colloques et séminaires.

TERECOP

Home Project Info Partners Events Products Dissemination Links e-Workspace

Font size

Home

You are here: TERECOP > Home

General View

Our project is inspired from

- the **constructivist theories** of Jean Piaget arguing that human learning is not the result of a transmission of knowledge, but an active process of knowledge construction based on experiences gained from the real world and linked to personal, unique pre-knowledge (Piaget 1972).
- the **constructionist** educational philosophy of S. Papert adding that the construction of new knowledge is more effective when the learners are engaged in constructing products that are personally meaningful to them. Constructionism (Papert, 1992), is a natural extension of constructivism and emphasizes the hands-on aspect. The learners in a constructionist environment build something on their own, preferably a tangible object that they can both touch and find meaningful. The goal of constructionism is giving children good things to do so that they can learn by doing much better than they could before (Papert, 1980).

In this theoretical frame a **socio-constructivist** view is adopted, where learning is not an individual, but a particularly social and societal activity that means that learning always takes place in a social context.

[More >>>](#)

Aim - Objectives

The overall aim of the project is to develop a framework for teacher education courses in order to enable teachers to implement the robotics-enhanced constructivist learning in school classrooms, and report experiences from the implementation of this framework. More specifically our objectives are:...

[More >>>](#)

Pedagogy

A **research-based approach** is adopted in terms of teachers' professional development efforts and reported experiences of using technological tools in teacher education and in classrooms. The joint cognitive partnership between technology and learners depends on mindful engagement and interaction. Consequently, to engineer a desirable effect with or of a technology requires more than just introducing the technology.

Therefore, in this research project we will apply constructivist pedagogy and a learner-centered didactical approach taking into consideration learner's characteristics for an effective technology-enhanced learning design. Striving for a collaborative learning environment is based on the belief that the inherent dynamics of a necessary mutual process are likely to be more conducive to meaningful transformation, carrying so a sense of greater potential for development. This is highly supported by the development of e-learning communities.

The screenshot shows the eClass web application interface. At the top right, it displays the user's login information: "Login: **liliane aravecchia**, Logout". The main header features the eClass logo and the text "Πλατφόρμα Ασύγχρονης Τηλεκπαίδευσης". Below the header, a navigation bar shows "User Portfolio > TERECoP Project". The main content area is titled "TERECoP Project (50060207)" and lists the professor as "Dimitris Alimisis (e-mail)" and the department as "Άρθροία έάέ Όά+ήιείαβά (other)". A section titled "Course Introduction" with a red 'X' icon contains the text "welcome to TERECoP e-workspace!". Below this, there are two columns of menu items, each with a "Deactivate" link: "Agenda", "Documents", "Forums", "Chat", "Links", "Announcements", and "Groups". A "Course Admin Tools" section contains "Add new component", "Course Statistics", "Course Administration", and "Users Administration". A "Deactivated Components" section contains "Video", "Exercises", "Course description", "Student Papers", and "DropBox", each with an "Activate" link.

Grant Agreement number: 128959-CP-1-2006-1-GR-COMENIUS-C21 2006 – 2518 / 001 – 001 SO2

Matériel choisi : Robot Mindstorms et brique NXT

