

Effective use of educational and vocational guidance services in distance education: the experience of USGM, Italy

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ABSTRACT

Efficient educational and vocational guidance services are more and more necessary to guide young students and professionals to the choice of suitable learning paths. In the distance education context, guidance and counselling services play a crucial role in the students course selection as well as in the management of studies and in the reduction of the drop out rate.

This paper describes the experience of the Università degli Studi “Guglielmo Marconi” in the study and research of effective guidance services able to fulfil the needs of different kind of users. Starting from a very heterogeneous student target, USGM guidance project has been conceived to increase the number of people experiencing higher education with a positive impact on the current work system. A wide range of services are offered to students during the whole educational path, especially in the crucial moments such as curriculum choice, study plan and order of the exams, postgraduate studies, possibilities of internship and stages. The USGM Guidance Office includes the following centres that are in continuous interaction through an integrated communication system: - General information centre - Administration centre - Motivational counselling centre and Tutorial System - Help Desk - Placement and career centre.

INTRODUCTION

In the contemporary society, many young people have to face the problem of the career choice: this can often lead to offhand and wrong decisions, with negative consequences for the single individual as well as for society, either from an economic and a social point of view. The career choice of an individual is obviously related to the development of professional skills belonging to a specific didactic area and for this reason students must select at first a learning subject. The moment of “choosing” is particularly difficult for young people, because:

A. Media constantly provide a distorted and misleading view of reality, inducing individuals to make wrong and superficial choices, often without analyzing the real opportunities and the pros and cons of their decisions.

B. Secondary school often lacks of efficient guidance services and support .

Many institutions, in order to cope with these problems, have established professional units and centres providing welfare advice, careers advice, support for students with special needs and support in the development of key skills including literacy, mathematics, computing and study skills. (Outcomes from institutional audit - Academic guidance, support and supervision, and personal support and guidance - Quality Assurance Agency for Higher Education 134 10/06) Our presentation will give a contribution in the sharing of experiences in order to open the way for new cooperation actions.

THIRD SECTION

In the last 20 years, the increasing importance of information and communication technology (ICT) have induced many educational and training institutions to apply new technologies to

education, in order to reach new and more ambitious goals (Hodgson, 2002; McNaught, 2003). Università degli Studi “Guglielmo Marconi” is the first Italian open university according to the related Decree from MUR - the Italian Ministry of the University and Research – of 1st March 2004 (as published in the Official Journal, G.U. n. 65 of March 18th, 2004). In order to guarantee a high quality level of education and to favour the learning process, the University uses a whole range of communication channels, both in “in presence” and “distance mode” through digital tools and the web. The USGM offices, situated both in Italy (Latium, Lombardy, Liguria, Piedmont, Puglia, Campania, Sicily and Sardinia) and abroad (Greece), are centres available to students equipped with all the technology necessary to follow the distance courses, to meet teachers and tutors and to take final face-to-face examinations.

Guidance services are offered in the different centres to optimise the acquisition of students’ knowledge and professional skills as well as to provide users with a wider range of career opportunities.

According to what is reported in the introduction of this paper, the pre-academic guidance service (even from the age of 15) is of utmost importance in particular in distance education for reducing the students dropping out. In this regard, USGM pre-academic guidance is mainly based on a series of scheduled interventions in High Schools, aiming at informing and orienting young people and their parents in the university faculty choice. Such meetings intend to present the whole USGM didactic offer and the Virtual C@mpus platform in order to make young people aware of the new opportunities coming from the innovative learning environments.

Moreover, an intra-academic guidance which follows the learner during his/her whole educational path, especially in the crucial moments (such as curriculum choice, order of the exams, postgraduate studies, possibilities of internship...), represents the best way to encourage and motivate students to achieve their goals.

The USGM Guidance Office includes the following centres that are in continuous interaction through an integrated communication system:

1. General information centre
2. Administration centre
3. Motivational counselling centre and Tutorial System
4. Help Desk
5. Placement and career centre

1. In this Centre, information and course descriptions are provided and brochures, CDs-Rom and other kinds of information material are freely distributed to both enrolled and not yet enrolled students.

2. In the Administration Centre, students are informed about the administrative charges as for example the certificate listing the exams passed at USGM or at other universities, the fee for transfer from another Athenaeum, the fee for credit transfer award from foreign / national Universities, the transfer to another degree course or to another specialization curriculum, the graduation final exam fee etc.

3. The Motivational counselling centre is actually constituted by a group of psychologists helping learners, in a first moment, to choose their study course during the enrolment phase and then, assisting them during the whole educational path. In this regard, once students have chosen their courses, psychologists provide them with useful hints and tips on the best possible study methods such as how to approach the distance learning, how to manage the study timetable, what are the best memorization techniques, how to improve performances, how to plan and set reasonable goals, how to cope with personal difficulties (helping them to manage anxiety, to have a positive mind set, not to feel overwhelmed, to face family problems and to interact with others).

Besides a group of professional psychologists, the Motivational Counselling Centre offers students a personal service of didactic tutoring. In particular, for each single subject, students will receive a customized assistance from a tutor who takes account of their different demands and supports them in the development of personal learning paths and towards the achievement of professional skills.

The main tasks of tutors consist in guiding students in the choice of the most suitable course study and following them during the whole educational path.

Since they work alongside learners, tutors are considered as the reference point for the provision of effective support in the phase of knowledge and competencies acquisition.

Moreover, to answer the requirement of a very heterogeneous target made of young people, adult learners, employed and unemployed people, tutors have to valorise students abilities and personalities, favouring the achievement of individual goals such as the acquirement of specific competencies, career management skills and self-confidence. As a matter of fact, career guidance helps people to reflect on their ambitions, interests, qualifications and background and to make a decision about which direction to follow in the different stages of their life: people are often not lacking abilities but they just have to choose how and where to use them.

In the distance education context, more than in face-to-face education, students need to know that someone is interested in their progress and should be encouraged to think about their own development. Tutors actually take account of the different students' needs, especially in blended and distance education, where face-to-face contact with teacher is replaced by virtual interaction. As a matter of fact, tutors provide regular contact and general guidance on academic and non-academic issues, recognising when their assistance is required.

In order to fulfil these tasks in the best possible way, USGM tutors have specific background in pedagogical issues (appropriate education experience) and social, professional, communication and technical skills (ability to make learners comfortable with technology). Since they are involved in the use of multimedia, audio and video applications and in synchronous and asynchronous tools they often work alongside technical experts and instructional designers, collaborating with them in the choice of communication and interaction modalities and tools.

The most essential challenge in distance tutoring is related to the problem of how to build and maintain a good level of interaction which really supports learning. In this regard, the implementation of new Information and Communication Technologies plays a crucial role in the improvement of innovative communication systems aiming at the optimization of relationships between tutors and learners. We firmly believe that effective learning and teaching are actually based on the development of strong positive relationships, representing the key to attain successful outcomes in the distance mode.

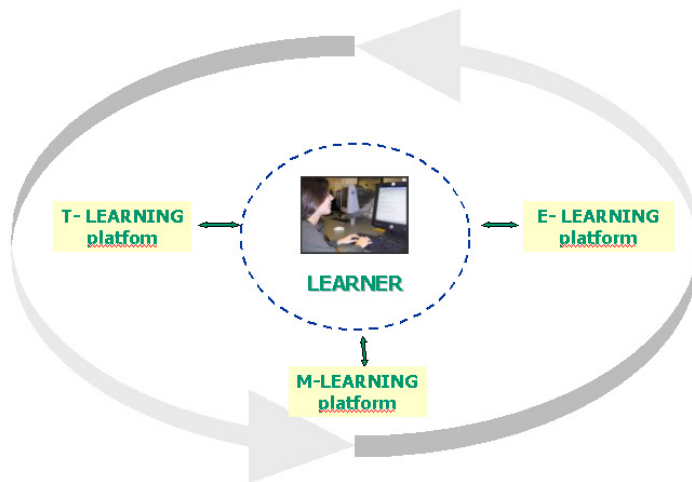
Emails and audio-conferencing are the most traditional equipment for guidance tutoring. In addition to these, more modern equipments are audio-graphic education and computer based education (Harry, Keegan, John. 1996).

In this framework, in order to meet the different student needs, USGM adopts a Multimodal Integrated System for Didactics, an innovative learning methodology arising from the E-Learning, M-Learning and T-Learning solutions. The lessons, recorded by teachers at the University Multimedia Centre, are delivered through this system, allowing students to learn in a fast and efficient way, choosing the digital tools that better responds to their demands. Therefore students can watch and listen to lessons, through multiple supports:

- **Personal Computer** e-Learning Platform

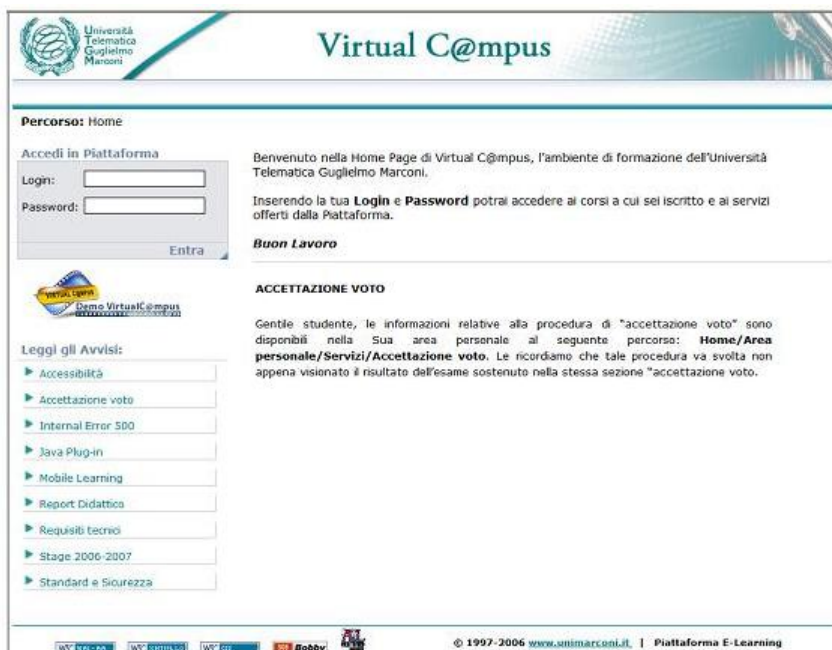
- **Television** Web TV
 DVD

- **Mobile/mp3 players** Mobile phone
 iPOD
 PDA
 PocketPC



Such a system helps students to personalize their learning path, without any time and space constraints, both on-line and off-line.

At present, the most used support is the e-Learning platform, *Virtual C@mpus*, a flexible and personalized Virtual Learning Centre, able to support online activities, guaranteeing both synchronous and asynchronous interactive education (simulations, virtual classroom, videoconferencing, online libraries, etc.) and allowing students to follow didactic activities, with the support of teachers and tutors 24/7.



Through the University portal (www.unimarconi.it) each learner can access the personal *student handbook* containing a detailed course description and the educational offer. Once enrolled, they can access on-line secretary services for any administration issues and are assigned a tutor and a virtual class.

All courses offered in the e-learning modality are traceable in order to make the tutor able to follow his / her learner during the whole course. Thanks to this feature, each student is assigned a personal electronic *portfolio*, a tool able to evaluate and self-evaluate the personal academic and professional growth and to favour self-analysis. It collects information related to the:

- attendance
- efforts, progress and achievements over a period of time (i.e. a didactic unit)
- homework results
- works produced by him / her
- intermediate and final evaluation marks
- cognitive style creation
- mastery in ideating and using strategies
- tutor's comments and remarks on his / her learning methods
- input by tutors, parents and school administrators

Such a portfolio is useful for the evaluation of student's abilities and improvement as well as for the graduation final exam.

As concerns communication between tutors and learners, the main instruments used are synchronous tools (audio-conferencing, Web-conferencing, video-conferencing, chat) and asynchronous tools (Website links, group announcements, messaging/e-mail, surveys and polls) with the integration of contents through the interactive Computer Based Training, streaming audio and video and narrated slideshows.

4. The USGM Help Desk is a centre through which technical problems reported by students are managed and coordinated. The Internet, besides telephone, fax or postal mail, is one of the main media for providing support because of its cheapness; furthermore, it allows customers to communicate directly with a technician and to solve immediately the problem. Both the Internet and the Intranet based systems have many benefits that overcome the limits of a telephone support help desk: actually, it is available 24 hours a day (allowing foreign students with different time zones to have access even when it is closed, through the self help facilities such as the Frequently Asked Questions service).

In particular, this office is responsible for handling students' username and password, answering customers' questions about web platform, student FAQs, updating user information, filling in the study plan and the exam calendar and so on and so forth.

The most usual problems met by students are recorded, tracked and inserted in a specific and constantly updated session, where other students can enter to overcome alone their difficulties.

5. The Placement and career centre provides graduate students with information regarding advice on the different job opportunities offered at local, national and international level. This kind of guidance aims at promoting the integration of students in the labour market, even organizing meetings with entrepreneurs, associations, public and private bodies which, providing information on the activities carried out within their environment, can help young people make a professional choice according to their competencies, skills and ambitions.

Furthermore, USGM has created *Pianeta Laureati*, a dedicated virtual space for every USGM graduate and postgraduate student. Through *Pianeta Laureati* the best research works carried out during the graduation thesis are visible to the whole internet community: in particular, the *Albo d'Oro* session includes the publication of the highest mark (110 out of 110) dissertation abstracts as well as an interview by the author containing information on his / her professional path, future projects and research interests.

Moreover, in the *Attività* session, a database collecting all graduate student CVs has been created to be available to those enterprises interested in recruiting qualified personnel in the different sectors. In this regard, many agreements have been signed for mutual cooperation between the University and several public and private companies according to the specific field of study (such as IT industries of hardware and software, robotics and automotive industries, public administration institutions, employment agencies, banks, multinational companies, advertisement and communication industries etc.), in order to:

- carry out research programs using USGM graduate students;
- offer them opportunities of stage
- train and recruit future managers.

Among the services provided, registered users periodically receive invitations to USGM events and meetings as well as consulting and advice on the postgraduate didactic offer (courses of specialization and refreshment etc.).

Another important and transversal service offered to USGM enrolled students is an online support continuously providing different kinds of information such as news on the courses, important notices, deadlines, opportunities, activated services, book presentations by USGM teachers, cultural activities, exhibitions, new partnerships and agreements signed with other national and international institutions and enterprises etc. All students enrolled in whatever faculty, after having created a personal email account, receive a two-monthly newsletter, including the most important information related to the University.

FOURTH SECTION

The PARMENIDE Project (Promoting Advanced Resources and Methodologies for New Teaching and Learning In Digital Education), realized by the USGM International Projects and R&D Office and co-funded by the *Leonardo Da Vinci Programme*, intends to design and spread out an innovative learning system with the purpose to match the E- learning training modalities with an advanced knowledge acquisition system based on Intelligent Agents (IA). IAs in fact are endowed with great reactive, intuitive and interpretative skills and therefore can really make virtual learning easier. During the first phase of the project, the trainers have to fully understand the potentialities of the new methodology and mediate to define the strategies of programming and designing the IA-based training paths. Students/operators realize in real time the consequences of their mistakes and acquire the capacity of direct intervention on equipment, plants, technological tools typically employed in the field of transport.

The innovative learning process is based on a knowledge transfer, where the student is followed “step by step” by his / her virtual tutor / teacher (based on Artificial Intelligence methods) which:

- shows students how to carry out a complex task and to enhance a pragmatic approach to solve problems;
- evaluates the performances and responses of each user and adapts the teaching method according to specific needs and particular environments;
- guides and supports users during their learning path with “learning by doing” methodology. (Mascitti, Tramonti, Funghi. 2007)

<http://parmenide.unimarconi.it/ing/parmenide.html>

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