



**Erasmus+ Capacity Building in Higher Education T@SK project**

*Towards increased awareness, responsibility and shared quality in social work*

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**Digitalization of Teaching and Learning Activities  
Implementation of the ICT and Moodle Platforms by the  
University of Elbasan, University of Shkoder and University of  
Tirana**



UNIVERSITÀ  
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Consiglio Regionale della Toscana

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**Editors P1** - *University of Florence, DSPS*  
Giulia Mascagni.

**Editors P2** - *Universidad Complutense Madrid*  
Andoni Alonso Puelles, David Alonso, Sergio D'Antonio Maceiras.

**Editors P4** - *University of Tirana, Faculty of Social Sciences, Department of Social Work and Social Policy*  
Migena Brahimaj, Rezart Husa, Daniela Kalaja, Stefani Mici, Rudina Rama.

**Editors P5** - *University of Shkoder, Faculty of Educational Sciences, Department of Psychology and Social Work (DPSW)*  
Virtyt Bushati, Visar Dizdari, Andi Fishta, Bujane Topalli, Lediana Xhakollari.

**Editors P6** - *University of Elbasan "Aleksander Xhuvani" Faculty of Educational Sciences, Department of Social Sciences*  
Eda Cela, Paola Dishani, Klevis Duka, Elisabeta Osmanaj, Indrit Shkupi.

## Synthesis/Index

	<b>ICT and MOODLE Platform in the experiences of the University of Tirana, University of Shkoder and University of Elbasan</b>	<b>Page</b>
	<b>Introduction</b>	4
<b>1</b>	<b>The University of Elbasan Experience</b>	5
<b>2</b>	<b>The University of Shkoder: improving ICT knowledge and skills</b>	13
<b>3</b>	<b>Further Experiences from the University of Tirana</b>	21

## *Introduction*

The digitalization of teaching and learning activities represented a key aim of the T@sk Project as such. The analysis carried out in the preparation phase, both regarding the needs assessment of three universities' infrastructure (Work Package 1.1) and the evaluation of the digital skills of Albanian students (Work Package 1.3)<sup>1</sup> confirmed the urgent need to provide universities with an updated know-how knowledge and the necessary equipment to support the technical and academic investment in the digital sphere. The timeline of the project activities allowed such investment during the first two years of the project.

The needs assessment, the evaluation of the digital competences, the two training sessions focusing on the ICT<sup>2</sup> and the purchase of the majority of technical equipment took place at a time when nobody could expect the occurrence of a global pandemic.

The acquisition of new ICT skills permitted the three Albanian universities to successfully face the challenges of online teaching, something totally unprecedented for the Albanian scenario. The investment on digital learning and teaching activities also allowed to include the project stakeholders beyond university students; in the adoption of new technical and professional courses through the access to the laboratory for Social Work professionals who supervise the students of the three universities during their internship.

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<sup>1</sup> Please, see data and reports at <https://www.taskproject.eu/wp-1-3-ict-preparatory/>

<sup>2</sup> The first T@sk Project training on ICT and digital competences improvement was held in Shkoder, October 15<sup>th</sup> -20<sup>th</sup>, 2018; the Second training in Tirana, November 05<sup>th</sup>-07<sup>th</sup>, 2019.

## *Part 1 – The University of Elbasan Experience*

One of the pillars of the T@SK project has been the digitalization of teaching and learning process at the Department of Social Sciences, Faculty of Educational Sciences of the University *Aleksander Xhuvani*, in Elbasan. This process was carried out in several phases during the project. In the first year was established the infrastructure that would help afterwards during the process. Then, was purchased the necessary equipment such as: servers, internet antennas, routers, computers for students. Also, was established the ICT laboratory at the Faculty of Education Sciences. During the second year, trainings were conducted to increase the capacity of academic and administrative staff which would implement this process. During the trainings conducted by the colleagues of the Complutense de Madrid University, in Shkodra on October 2018 and in Tirana on October 2019, trainings were realized using the Moodle e-Learning platform. Courses were opened, lectures were given, etc. With the T@SK project funds was implemented the construction of the laboratory so that students, important participants in this process, had the opportunity to be trained using the platform dedicated to teaching and learning- Moodle.

### **1.1 DATA ON THE TECHNICAL ASPECT OF THE WHOLE PROCESS (ICT)**

#### **Security risk assessment**

University of Elbasan has been the first to conduct a preliminary security risk assessment before implementing and installing all the devices. The specific goal was to perform an initial analysis for a combined risk assessment method, which required efforts in each of the following steps:

1. Context and asset creation (risk profile and key IT assets);
2. Risks identifications (threats, sources of threats, vulnerabilities), external threats such as malware attacks on web services;
3. Risk analysis;
4. Risk assessment and prioritization;
5. Development of risk management plan (possible additional security check).

#### **User authentication and access control**

The faculty computer network is divided into several main groups of users or otherwise referred to as VLANs. With regard to the physical computers located on the faculty premises the division is carried out in the following way: in the VLAN2 are the PCs of the academic and administrative staff; VLAN3 is dedicated to the library and student laboratories; and VLAN1 belongs to the IT staff. Another special VLAN has been set up for the server and lab PCs for Social Science students who are connected to the domain. Also, another VLAN has

been installed for the “WLAN Controller” that manages the entire wireless network in the faculty and beyond. Computers that are connected to the domain are included in the GPO (Group Policy) with special rights, respectively for services only closely related to the academic development of the students. Users of this department, both students and academic staff, have the right to communicate with the server for the "File sharing" service, for the storage and access of data related to teaching materials developed in the classroom and outside. In order to have a secure network on all physical computers, were installed antivirus packages and endpoint protection. This package is installed with administrator rights on each PC and each user logged into the PC has a separate account. Such procedure does not allow them to have system file modification rights. Consequently, the user has limited rights so that no user such as academic, administrative staff or even students have the right to deactivate or change the features / functions of the security package or operating system files.

In connection with the "WLAN Controller" three VLANs have also been created for easier network management, as well as for increasing security throughout the network of the Faculty of Education Sciences. The VLAN network groups are divided into VLAN1 which belongs to the IT staff, VLAN2 which includes students and VLAN3 which includes all the academic and administrative staff of the Faculty of Education Sciences. For each configuration of VLAN2 and VLAN3 a "bandwidth" limit is set so as not to affect the work performed by physical computers.

### **Network perimeter security**

Taking into account the significant increase in cyber-attacks during the pandemic time caused by COVID-19, *network perimeter security* is an essential element for any network or system that accesses the intranet, the Internet and the World Wide Web, so the University of Elbasan must be extremely careful in managing its security from external or internal threatening factors.

So, in order to increase our system and overall system security, the University of Elbasan has implemented a “next generation firewall” or “NGFW” which contains modules to ensure network security such as Web filtering, antivirus, IPS, DPI (deep packet inspection) and application control. For the group of users who are not part of the academic staff, such as administration and students, only web services are allowed, specifically only ports 443 (SSL / TLS), 80 and 8080 as well as internal faculty services such as the Moodle LMS system. Also, for this group of users, various websites or services are blocked, if these are not part of the teaching purpose at the faculty. At the same time, the academic staff has no barriers to internet access or to any type of services that can be accessed both on the intranet and on the internet. The various networks of the faculty are connected directly to the firewall which through the "default" policy of access (discard), guarantees the required security in the network. The security implemented by both the WLAN Controller and NGFW, contains IDS (Intrusion Detection System) and IPS (Intrusion Prevention Service) modules. The IDS package monitors the network and system against suspicious activity occurred on the server, which may have intentions to breach the security or compromise the materials. Any intrusive activity or breach is reported in real time to the network administrator or collected in a central system through the security information and event management system. Such a system is

able to combine results from different sources and uses filtering techniques to identify threatening activities and false activities. The IPS package serves to detect and prevent threats already identified. Intrusion prevention systems constantly monitor the network, looking for potential incidents and capturing information about them. IPS reports these events to the system administrator and takes preventative action, such as closing access points and setting up firewalls to prevent potential attacks. IPS solutions can also be used to identify issues related to the institution's security policies, preventing students, administrative staff, but also academics from violating the rules contained in the policies set online.

### **Software security**

The software Moodle is developed in the php language and running inside the apache web server. The current version of the Moodle system is 3.3.9 + Build: 20190201 and the php version is 7.2. To ensure its security, continuous updates of the operating system are performed, but also of other components of the Moodle system, such as php, apache web server, etc., are measures which significantly increase the security of the system, but also of protecting it from various attacks. SSL / TLS encryption is also used to increase the security of access to the website. To generate the TLS certificate, the apache web server uses a mechanism that generates this certificate for the web version, through a service called "Let's Encrypt". Let's Encrypt is an open entity that provides SSL / TLS certificate renewal automation using the ACME (Automatic Certificate Management Environment) protocol to provide free TLS certificates to any interested client. Let's Encrypt offers it for free to the users by fully automating the procedure and relying on sponsorships and donations to fund the necessary infrastructure. The way Let's Encrypt works using the ACME protocol is that it first determines how clients communicate with the server to request the certificate, verify the domain ownership, and then download the certificate. Let's Encrypt provides certificates for the existing domain, which means that they must check whether the certificate request comes from a person who verifies whether the domain exists or not, an action which is accomplished by sending the client a unique code (unique token) and then a DNS request is sent to obtain a token-generated key. The most popular ACME client, Certbot, was developed by the Electronic Frontier Foundation. In addition to verifying domain ownership and obtaining certificates, Certbot can automatically configure TLS / SSL on both Apache and Nginx servers where the case under consideration is for Apache only. Certbot applies mostly to Linux operating systems and includes convenient auto-configuration capabilities for Apache. After installation, obtaining the certificate and updating, the Apache configuration can be done by giving the command "*sudo certbot --apache -d www.example.com*" After this step the Certbot performs some queries, further downloads the certificates, updates the Apache configuration and restarts all the applications necessary for its normal operation from the beginning. From this moment the University of Elbasan is able to use the SSL / TLS service in the browser, where a green lock appears "*https://lms.uni-el.edu.al*" which indicates that the certificate is valid, and the connection is encrypted. Since certificates are only valid for 90 days it is important to set up an automatic renewal process, where the following command is used for automatic certificate renewal: "*\$ sudo certbot renew*". Next, the University of Elbasan experts place the above command in a "crontab" to execute it every day and the certificates will be automatically renewed thirty days before they expire. If the

certificates were previously created for Apache, Certbot will reload the server after a successful upgrade. If the need for additional security arises further, another component called WAF (web application firewall) can be implemented, which analyzes any HTTP request and blocks it in case it is a cyber-attack. The difference between WAF and Firewall is that WAF is able to filter the content of specific applications on the Internet, while firewalls serve as a security gateway in communication with the server. By inspecting HTTP traffic, WAF can prevent attacks that result from Internet application security "flaws", such as SQL injection, cross-site scripting (XSS), file inclusion, and security misconfigurations.

In brief University of Elbasan also constantly makes back-up of the OS (operative system), Moodle system and all the old versions of the NGFW updates firmware.

## 1.2 USING THE MOODLE PLATFORM DURING THE COVID-19 GLOBAL PANDEMIC

In November 2019, within the T@sk project at the Department of Social Sciences, Faculty of Education Sciences, Aleksander Xhuvani University, was implemented the “Moodle” platform “Learning Management System” (<https://lms.uni-el.edu.al/?redirect=0>). Moodle is a learning platform created to easily provide online learning for both faculty and students. It is considered a powerful, secure and integrated system that is creating personalized online learning environment, as well as is taking over necessary information from the students but also from the academic staff and making possible the facilitation of the communication as well as the remote approach of the students with the academic staff and conversely. On 20<sup>th</sup> of March 2020, with the decision of the Rectorate of the Alexander Xhuvani University (order no. 44, dated 20.03.2020) regarding the new measures for preventing the spread of COVID-19, teaching at the university was interrupted due to the global pandemic that also has affected our country. The lesson would then resume after 20<sup>th</sup> of March, but only in online format and not in the auditorium. The Department of Social Sciences has developed online learning on the Moodle platform from the months of March to June. There are fifteen weeks of online tuition in the master programs and thirteen weeks in the bachelor programs. The platform has been a tremendous help in this situation by offering students high quality teaching. Department professors were placing their prepared materials on Moodle, were communicating with students continuously and uninterruptedly during the pandemic period. The tasks defined in the disciplinary programs were containing forums, chats, feedback, quizzes, URL, etc., all these to help the students but also to facilitate the evaluation by professors. Also, during pandemic period was created a study program in Professional Master. This program is including 11 courses out of 69 (the total number of courses).

Even if was found in an emergency situation, the feedback from the staff and from the students who used the Moodle platform was quite positive. So, the lessons took place 100% on the Moodle platform including partial student assessment. Even after returning to the auditorium, the Moodle platform has been used to help students to return to the lectures and to receive information, but also to alternate teaching online and in the auditorium.



### 1.3 STAFF TRAINING DURING THE T@SK PROJECT FOR ALL FACULTY TEACHERS

On 1<sup>st</sup> of October 2020, intensive work was done for the implementation of the platform throughout the UNIEL faculty. It has been operated in 252 modules divided into nine study programs for both bachelor and master. The Department of Social Sciences already has a total of 288 student and academic staff accounts accessing the respective roles and courses. Also, during October 2020, the University of Elbasan had twelve days of training for four departments of the Faculty of Education Sciences, from where 21 lecturers were trained for the Moodle platform. The trainings were conducted by lecturers of the UNIEL Department of Social Sciences who were trained within the T@SK project by the lecturers of the Complutense de Madrid University, a partner university in the T@SK project which was the university responsible for the ICT. The trainings conducted during the implementation of T@SK in Shkodra and Tirana were focusing on the MOODLE platform.

**Table 1.1 - Training information of the academic staff of the Faculty of Education Sciences**

Training dates	Number of professors	Name of the departments
12-13-14 October, 2020	8 Professors	Department of Social Sciences
15-16-19 October, 2020	6 Professors	Department of Psychology
20-21-22 October, 2020	3 Professors	Department of Teaching Methodology
23-26-27 October, 2020	4 Professors	Department of Physical Education and Sports

### The number of courses and number of student accounts on Moodle platform

The University of Elbasan counts a total of 322 courses divided into 13 study programs in Bachelor, Professional Master and Master of Science.

#### Department of Social Sciences

**Table 1.2 - Information about open courses on Moodle and Social Work student accounts**

Study Program	Year	Number of courses	Number of students
Bachelor in Social Work	1	11 Courses	82 Students
Bachelor in Social Work	2	15 Courses	56 Students
Bachelor in Social Work	3	9 Courses	38 Students
Master of Science in Social Services	1	10 Courses	19 Students
Master of Science in Social Services	2	5 Courses	19 Students

Professional Master in Probation Service	1	10 Courses	22 Students
Professional Master Social Work with Family and Children	1	11 Courses	20 Students

### Department of Psychology

**Table 1.3 - Information about open psychology courses on Moodle**

Study Program	Year	Number of courses
Bachelor in Psychology	1	14 Courses
Bachelor in Psychology	2	14 Courses
Bachelor in Psychology	3	10 Courses
Master of Science in Educational Psychology	1	9 Courses
Master of Science in Educational Psychology	2	10 Courses
Professional Master in Psychology in Institution	1	13 Courses

### Department of Physical Education and Sports

**Table 1.4 - Information about open courses of physical education and sports on Moodle**

Study Program	Year	Number of courses
Bachelor in Physical Education and Sports	1	15 Courses
Bachelor in Physical Education and Sports	2	18 Courses
Bachelor in Physical Education and Sports	3	15 Courses
Professional Master in Physical Education and Sports	1	18 Courses
Professional Master in Physical Education and Sports	2	15 Courses

### Department of Teaching Methodology

**Table 1.5 - Information about open courses of methodology on Moodle**

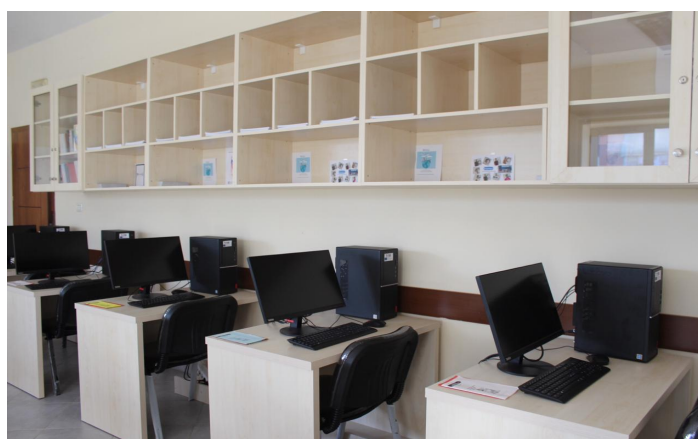
Study Program	Year	Number of courses
Bachelor in Teacher for Preschool Education	1	9 Courses
Bachelor in Teacher for Preschool Education	2	13 Courses
Bachelor in Teacher for Preschool Education	3	12 Courses
Bachelor in Primary Education Teacher	1	9 Courses

Bachelor in Primary Education Teacher	2	12 Courses
Bachelor in Primary Education Teacher	3	13 Courses
Master of Science in Primary Education Teacher	1	12 Courses
Master of Science in Primary Education Teacher	2	8 Courses
Professional Master in Management and Education Administration	1	13 Courses

Today within the T@SK Department, the Faculty of Education Sciences is enriched with the ICT laboratory which has the capacity to host 20 students every hour. The laboratory consists of 20 computers, a library and didactic materials which are used for teaching in this faculty. In its beginnings it was used by professors and students of the Department of Social Sciences but today it is used by the entire Faculty of Education Sciences.

Also, in the UNIEL Faculty of Education Sciences, thanks to the T@SK Project, professors and students have access not only to uninterrupted internet (Wi-Fi) but also to all the classrooms. This aspect has increased the quality and efficiency of teaching and learning.





## *Part 2 – The University of Shkoder: improving ICT knowledge and skills*

### **2.1 ICT TRAINING IN SKHODER: OCTOBER 2018**

Similarly to the University of Elbasan, the University of Shkoder also put to good use the digitalization opportunities offered by the T@sk Project. It did so by opening the training sessions on the ICT to its academic team, through the purchase of the necessary technical equipment organized in a new laboratory and, finally, by making use of the learning management systems during the COVID-19 pandemic. The three years of digitalization efforts resulted into a transformation of online academic offer that would have been impossible without the T@sk project.

During the ICT Training Session in Shkoder on October 2018, the UCM team was in charge of two workshops. The main one was the use and features of LMS Moodle: this goal was pursued through the learning by doing approach.

Creating a course requires to understand that for a blended teaching, online courses expand or enhance face-to-face teaching. Therefore, digital contents should complement afront activities. Activities, resources, and grading must have a clear purpose to grasp. There must be a sense, somehow of community: this is a course for specific individuals and specific teacher. It should be a good idea to use a restricted course for three reasons: to enhance the idea of community, to make copyright restrictions to be handled better and to deal easily with privacy issues. To reuse existing courses would require adjustments according to specific features.

Accessibility is always important for any online courses but for Department of Social Work this is a must. Design also must consider the people with disabilities and must create conditions for them to be able to follow the course. If possible, there should be a reinforcement available for those with specific needs (visual, hearing or motor disabilities).

Students who would participate, have to be carefully considered in their specific context. For that it is necessary to consider their background, technical expertise, workload capacity, and what they lack in terms of resources for instance. Competences, skills and goals should be presented at the beginning of the course design.

There must exist a clear structure of the course and easy to understand. Students should know from the beginning where they start and what they are supposed to achieve. Course must be transparent about what contains, what structure shows and how to complete it successfully. Students should be aware where they are, how much is left and how long will take to complete the requirements. Narrative sequencing often offers a clear and easy way to understand what is going on.

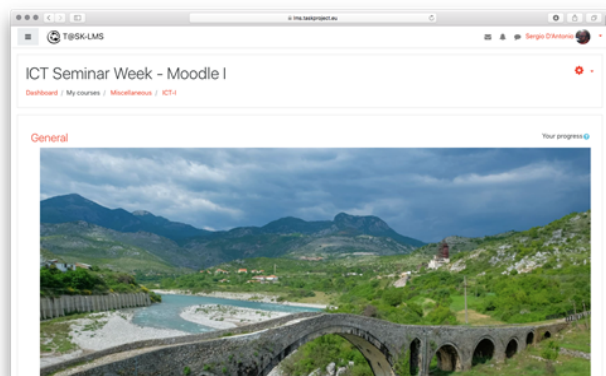
## 2.2 CONTENT FOR THE COURSE ON MOODLE TAUGHT ON SKHODRA

The <https://lms.taskproject.eu/course> was our intermediate functional platform for training but now is no longer available online<sup>3</sup>. Starting from that, UniShkoder team created a prototype with Albanian students about the basics of how to open a course. Since Moodle is a very powerful online tool, each item is linked to a specific page that allows to understand how it works and how to proceed.

Figure 1: Course implemented Skhodra University, Seminar October 2018

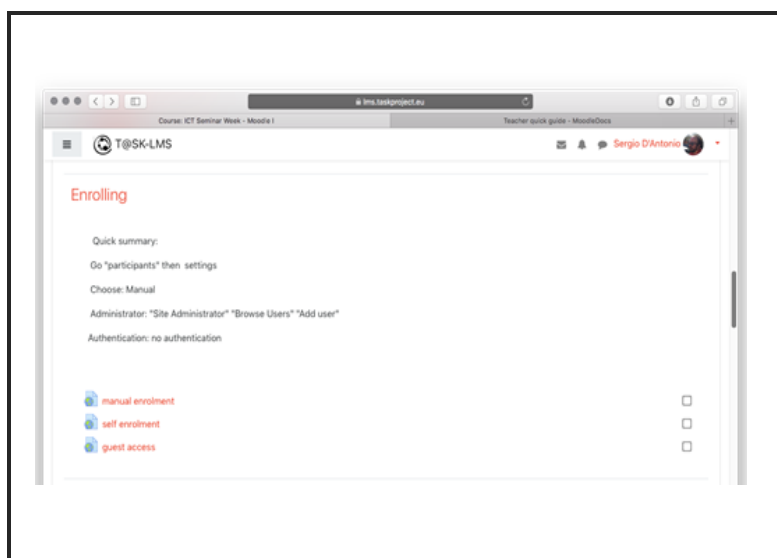
The structure was as following:

- Opening;
- Resources;
- Communication;
- Grading.



### 2.2.1 Opening a course: basic items

Again, enrolling is more than an administrative procedure, it is how to build up a community. The role of the admin is crucial. He/she is able to create a course from scratch or to recycle a pre-existing one.



He/she also has the right and therefore must know:

- How to enrol students and assign different roles;
- How to create a cohort;
- Know and manage the different modes to enrol students such as manual enrolment, self-enrolment and granting a guest access.

<sup>3</sup> It is specified that starting from the third year of the project, or since each of the University Departments involved was able to work on its own IT infrastructures, all the links related to <https://lms.taskproject.eu> have terminated their support function and have therefore been decommissioned. Therefore, the domain <https://lms.taskproject.eu> is no longer operational nor online.

So, the roles should be clearly defined and also to make clear where and how to interact.

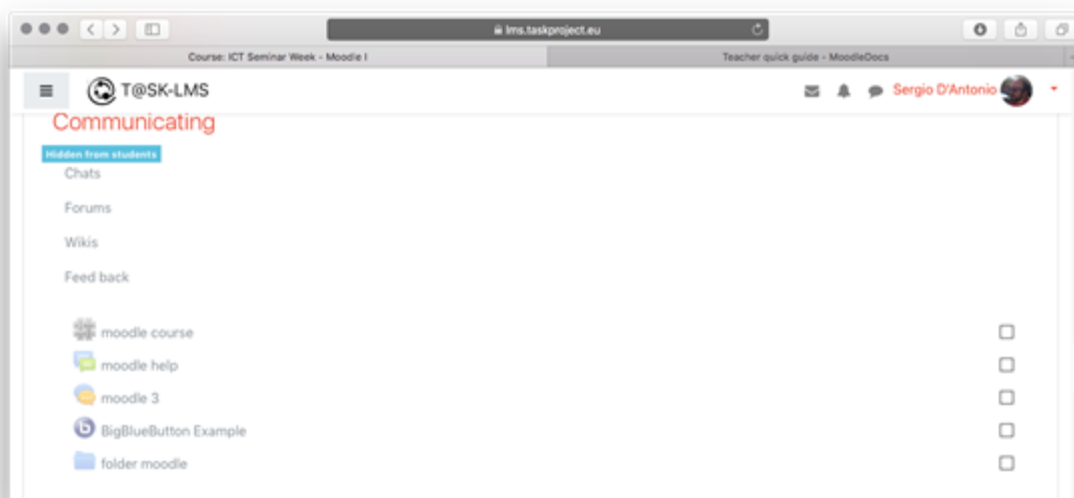
## **Content**

In this situation the basic lesson is how to combine the creation of the content by professor and students and how to use pre-existing materials from other sites. From a hierarchical perspective, own content should be the main material whereas external material should support, expand or underline specific items from the professor's point of view. Here it is important not to overload content because that could discourage the students in their learning process. So it is essential to establish a good hierarchy of required materials, complementary readings and expanded readings. Each one should have a mark of priority from compulsory to voluntary.

Professor's book is a very good tool to begin creating own materials and activities. There is a way to organize in a time-based sequence how contents, readings and activities will develop. External links also provide a great possibility to locate materials, but students must be aware of copyright restrictions, as mentioned previously in this paper. Open science and Open Journals should be the main source to capture external materials.

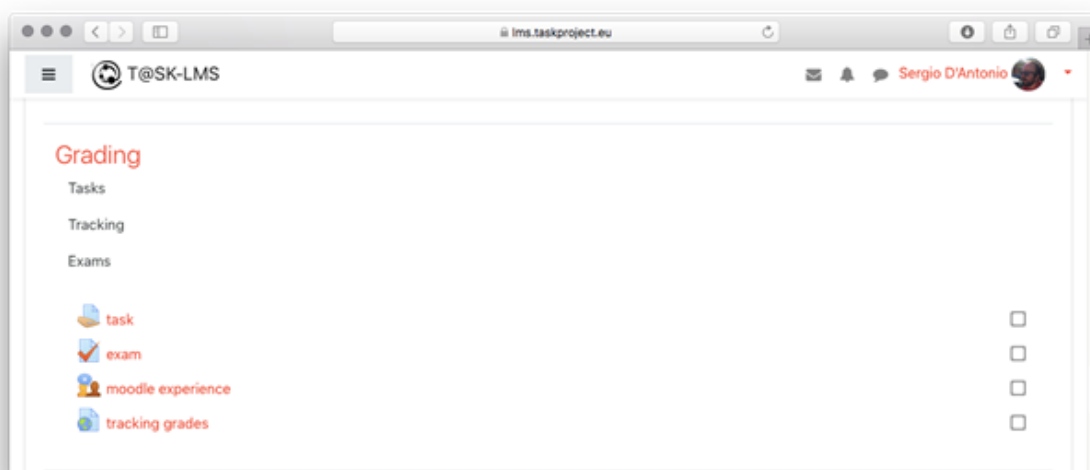
## **Communication: Chats, Forums, Wikis, Feedback**

Again, communication through online tools should be a complementary element for face-to-face interaction, or an off-classroom activity. Also, it can improve that sense of learning community because chats, wikis and forums allow a more horizontal interaction. Feedback could allow to know the general feeling about the course and if is developing correctly. Here it is extremely important to introduce norms, rules and procedures to use these interaction tools. Unfortunately, Facebook, Twitter and other social media platforms have created a wrong way of communication and can contaminate that course. Therefore, it is important to regulate its use and provide feedback in a proportionate way. Immediacy cannot be a rule. Instructors must state clearly how much time and how many answers they will provide. The use of forums, chats and wikis by the students must be really collaborative.



## Grading

One of the most powerful features of Moodle is the grading competence. The possibility of keeping records of activities, tasks and exams gives a very complete way to follow student's work and result. Therefore, it becomes easier to grade students for his or her work during the course. For students it implies a variety of tasks and activities so that the learning process would be more attractive. Statistics are also easy to achieve and explore.



Students were able to develop this course online as a way to experience how was to create a complete course. According to the students' evaluation it was quite successful.

## **2.3 STEPS FORWARD DIGITAL EQUIPMENT AND ACTIVITIES IMPLEMENTATION**

As described in detail in the previous paragraph, it is starting from October 2018 that with the first ICT course promoted by the T@sk Project and coordinated by the UCM team, UniShkoder's colleagues have been familiarized with the use of LMS Moodle for their teaching activities and needs. Since the colleagues did not have the required equipment, UniShkoder team used an intermediate platform: [lms.taskproject.eu](http://lms.taskproject.eu). Access to that platform is explained later in this paper.

UCM team has taught different options, tools and resources that Moodle is offering in order to configure an on-line course. As an example of our activities *Guidelines for Virtualizing Education in Social Work* could be taken as a result of our work. From then on, any participant of those courses has access to that platform for self-learning and self-training purposes. At the same time, each UCM LMS member has assigned a number of students to assist and solve problems.

Now, Shkoder University has a functioning version of that Moodle platform implemented in its equipment (also with an Online Survey Platform and an OJS): <http://lms.unishk.edu.al/moodle/>



Elbasan University and Tirana University have installed the servers and they are deploying the LMS systems in their faculties. In September the system will be completely installed.

The subsequent Consolidation Training in November 2019 had the goal to use the acquired knowledge so that each teacher can have his or her current course made virtualized in the corresponding LMS. English syllabuses were already available and the UCM team set a preparatory report for that training, based on the existing guidelines. The main goal of this second step was to consolidate the acquired knowledge by means of virtualizing different subjects.

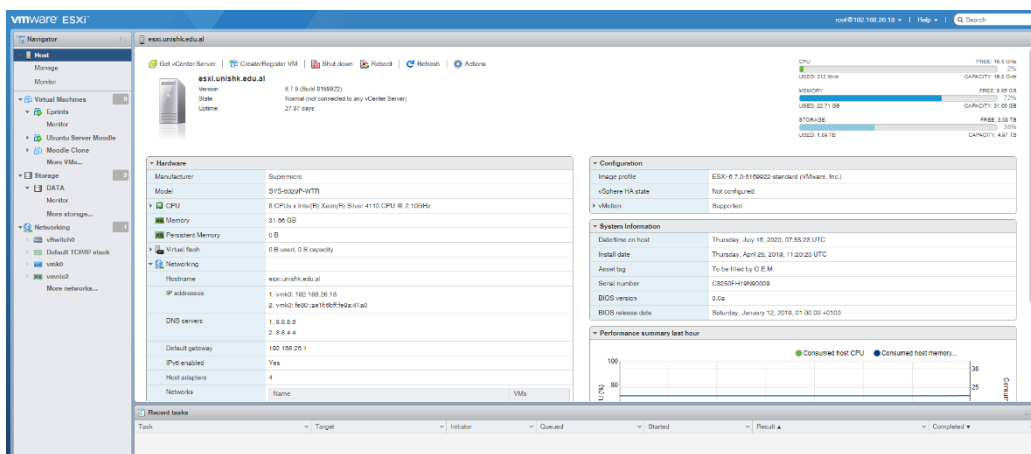
The second workshop went on on-line survey software, that is *LimeSurvey*. The idea was to give Albanian partners a platform to develop quantitative research without depending on third party services. At the same time that should promote research involving different project stakeholders such as NGO, public universities (students and teachers), and public institutions.

Following the implementation of T@sk Project 2019, after the purchase of equipment using the first part of the budget, the Web Server for LMS, KVM (switch for accessing rack servers) and UPS 3000 VA (Battery for continuous power supply) were placed in Rack.

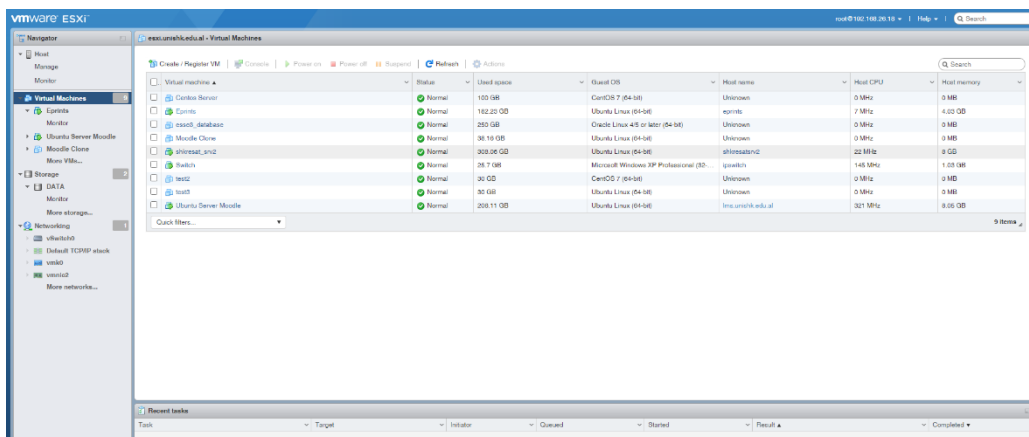
The server was installed with VMware ESXI 6.7. Then with Ubuntu 18.04 were installed and created: a) server webserver of moodle (<http://lms.unishk.edu.al/moodle/>); b) limesurvey (<http://lms.unishk.edu.al/limesurvey/>); c) OJS (open journal system) (<http://lms.unishk.edu.al/ojs/>).

On another server within VMware ESXI was installed and created with Ubuntu 18.04, server webserver EPrints (<http://eprints.unishk.edu.al/>). Since the capabilities of the VMware ESXI server are very good, it has been used to create other servers within it.

### 1. Capacity of Vmware ESXI 6.7



## 2. Tools that are built into VMware ESXI 6.7 (including tools or devices of the project).



The Moodle web server was originally created for users of the Department of Psychology and Social Work and for lecturers of the Faculty of Educational Sciences. Then the categories and courses were created for each academic year of the bachelor study program on Social Work. Then, through CSV files, students from each year in each subject of the program were enrolling.

Initially the number of users on Moodle was of six lecturers of the T@sk project and 57 social work students from the first year and 56 students from the second year.

During the closure period of the university, that began in spring 2020 as part of the national lockdown in Albania due to the spread of the virus Covid-19, it became possible to enroll on Moodle. Beside the Faculty of Educational Sciences with 11 study programs, other four faculties from the University of Shkoder (Faculty of Natural Sciences, Faculty of Foreign Languages, Faculty of Economy, Faculty of Social Sciences) were enrolled, including all their program courses of the first and second cycle of study (bachelor and master's degree) for a total of 36 study programs. Courses and lecturer were registered through CSV scripts while students were able to self-register in the courses they would like to attend.

With this approach to LMS Moodle, towards the end of the project (October 2020) at the University of Shkodra over 2000 users were registered in the system.

Below is the list of the first tranche of purchased equipment:

**Table 2.1 - Equipment T@sk 2019 (first part of the purchases)**

No.	Description	Item/pcs	Quantity
1	Switch L2 with 24 Ports	Pcs	4
2	Switch with 16 Ports	Pcs	3
3	Laptop Advanced	Pcs	4
4	Web Server for LMS	Pcs	1
5	Access point (all controlled with a software) <b>Supply placement</b>	Pcs	3
6	KVM (switch for accessing rack servers)	Pcs	1
7	UPS 3000 VA (Battery for continuous power supply)	Pcs	1

To continue with the implementation of the second phase of the project, was created the *ICT Laboratory Room* in the building of the Faculty of Educational Sciences. After purchasing the equipment specified in the second phase, it became possible to install all computers, ups, projector, printer and switches in the *ICT Laboratory room*.

Also, technical equipment for enhancing the quality of teaching and learning such as printers, projectors and Wi-Fi access point devices were installed in the Department of Psychology and Social Work office and in the auditoriums of Social Work bachelor study program (Faculty of Educational Sciences third floor building).

Below is the list of the second tranche of purchased equipment:

**Table 2.2 - Equipment T@sk 2019 (second part of the purchases)**

No.	Description	Item/Pcs	Quantity
1	Computer (HP Pavilion 590-P0057C Core I5-8400 2.8GHz 1TB 8GB DVD-RW BT WIN10 AMD RX550 2048MB Keyboard Mouse Silver) + Monitor HP VH22 21.5" Full HD 5ms)	Pcs	21
2	UPS 1000VA (SPS 1000VA)	Pcs	21
3	Projector (Acer x1223H)	Pcs	2
4	Printer (Xerox Workcenter 3025V NI)	Pcs	2
5	Switch L2 24P Cisco Catalist 9200L 24-port data 4x10G Network Essetials + accessories	Pcs	1
6	Network Cable Cat 5e UTP 305m Box	Pcs	2
7	Cat 5e Way Straight Cable Mount metal shielded RJ45 Connector Male	Pcs	200
8	Xerox Versalink C7025	Pcs	1

The *Nvivo* software<sup>4</sup> for qualitative research data processing was purchased and then the installation was performed on five computers of the beneficiary lecturer (Department of Psychology and Social Work full – time staff, part of T@sk project).

## 2.4 DIFFUSION OF THE MOODLE PLATFORM AT THE UNISHK DEPARTMENT OF PSYCHOLOGY AND SOCIAL WORK

Summing up on the impact of the project activities on the teaching and learning practices of our teachers and learners, the Department of Psychology and Social Work of the University of Shkoder *Luigj Gurakuqi* can count a total of 21 courses divided into three years of study programs in Bachelor's in Social Work. These have benefited from the support of the ICT introduced by T@sk Project, in particular the Moodle system.

For details, please see tables below.

**Table 2.3 - Training information of the academic staff of the Department of Psychology – Social Work**

Training dates	Number of professors	Name of Departments
15 – 18/10/2018	10	Department of Psychology – Social Work
5 – 7/11/2019	7	Department of Psychology – Social Work

**Table 2.4 - Information about open courses in MOODLE and accounts of Social Work students**

Study Program	Year	Number of courses	Number of students
Bachelor in Social Work	1	7	60
Bachelor in Social Work	2	6	56
Bachelor in Social Work	3	8	39

<sup>4</sup> NVIVO 12 Plus edu WIN/Mac single-user.

## *Part 3 – Further Experiences from the University of Tirana*

### **3.1 INFRASTRUCTURES AND HUMAN CAPITAL**

Being the biggest among the three Albanian University, the University of Tirana had different needs in terms of digitalization, when compared to the University of Elbasan and the University of Shkoder. The differences do not lie in the need for knowledge updating in terms of the use of the ICT for teaching and learning purposes in the field of Social Work, but in the pre-existence of a computer laboratory. The technical equipment purchased through the T@sk financing was not organized in a brand-new laboratory. Nonetheless, it was of central help for the implementation of all online activities implemented during the project years, and in particular during the COVID-19 pandemic phase.

The Information, Communication and Technology has been one of the most important spheres of the T@SK project, through the digitalization of teaching and learning process, by creating online programs to facilitate and improve communication between the faculty and students. In implementing this component, the Department of Social Work and Social Policy, Faculty of Social Sciences of the Tirana University has undertaken several steps, initiating with the investments in infrastructure. Was purchased the necessary equipment such as: servers, wireless antennas POE outdoor, wireless routers, switch managed POE 24p, rack white boards, patch panels, patch cables, PDU, network cable and computers.

During the second year, several trainings were conducted to increase the capacity of academic and administrative staff (IT faculty staff) in this purpose. These trainings were conducted and leaded by the colleagues of the Complutense de Madrid University in Shkodra on October 2018 and in Tirana on October 2019. During the trainings participants were informed and trained on LMS (Moodle) for teaching as a technology to enable online programs, facilitate and improve communication between faculty and students, and also the Online Survey System (Lime Survey) that can be used for teaching students and research teams to conduct professional research / studies. The system can be used also by other interested actors such as NGOs, social services, etc.

During the project implementation period the colleagues of Complutense de Madrid University have been advising and facilitating the IT faculty staff of University of Tirana in creating and implementing the ICT components.

### **3.2 CREATING AND IMPLEMENTING THE MOODLE PLATFORM**

Moodle is a learning platform created to easily provide online learning by both faculty and students. It is a single powerful, secure and integrated system that is creating personalized online learning environments, as well as is taking over necessary information from the

students but also from the academic staff, making possible the facilitation of the communication as well as the remote approach of the students with the academic staff and conversely.

In November 2019, within the T@sk Project, at the Faculty of Social Sciences, Department of Social Work and Social Policy and Department of Psychology has been created /implemented the “Moodle” platform “Learning Management System” (<https://lms.fshs-ut.edu.al/>).

During the global pandemic period of COVID-19 the infrastructure, equipment and network built on behalf of ICT component has facilitated the on-line teaching process for the whole Faculty of Social Sciences.

### 3.3 TRAININGS AND NUMBER OF COURSES AND NUMBER OF STUDENT ACCOUNTS ON MOODLE PLATFORM

The MOODLE platform has been operated into study programs of Bachelor’s in Social Work and Social Policy and of Bachelor’s in Psychology.

During October 2020 the University of Tirana had two days of training for two departments of the Faculty of Social Sciences, from where 42 lecturers were trained on the Moodle platform.

The trainings were conducted by IT staff and lectures of the faculty who were trained within the T@SK project by the Complutense de Madrid University, colleagues responsible for the ICT component.

**Table 3.1 - Training information for the academic staff at the Faculty of Social Sciences**

Training dates	Number of participants	Departments
26 October 2020	22 Professors	Department of Psychology
27 October 2020	20 Professors	Department of Social Work

The University of Tirana is counting a total of **89 courses** divided into bachelor study programs.

**Table 3.2 - Department of Social Work and Social Policy  
Information about open courses in MOODLE platform for social work students**

Course Name	Year	Number of students	Courses
Bachelor in Social Work and Social Policy	1	100	16
Bachelor in Social Work and Social Policy	2	101	16
Bachelor in Social Work and Social Policy	3	96	15

**Table 3.3 - Department of Psychology  
Information about open courses on MOODLE platform for Psychology students**

Course Name	Year	Number of students	Courses
Bachelor in Psychology	1	110	14
Bachelor in Psychology	2	113	12
Bachelor in Psychology	3	103	16

The University of Tirana is continuing to create courses into master study programs for the respective departments. Thanks to the T@SK project, the Faculty of Social Sciences has increased the internet (Wi-Fi) access for all classrooms and building, improving the quality and efficiency of teaching and learning process.

## ANNEX 1

### ICT Training Week in Shkoder - AGENDA

The Shkoder Meeting is specially focused on the USE of ICT in teaching and learning process and some online research tools for social work. The proposal for this training is a “learning by doing” process.

*[IMPORTANT: The LMS sessions (from Monday until Wednesday) are accumulative, so these require the people be present during the three days of training.]*

#### MONDAY 15/10/2018

9:30-12:00 ICT Technical meeting\*

\* Information here: <https://3.basecamp.com/3679664/buckets/5567169/messages/1319556112>

*This side meeting is for technical ICT and ICT project member from every partner.*

#### MONDAY 15/10/2018

9:00-10:00 agenda for the week: brief framework e-pedagogy, ICT tools for teaching and learning (LMS, audiovisual resources...), ICT for research (LimeSurvey) ... next ICT training: documents repository.

10:00-11:00 participants experience with e-learning, motivation and expectations for the training. Key aspects on e-learning pedagogy.

11:00-11:30 break

11:30-12:30 analyze your curriculum plan: how we can create an online course from it? What do I need? how can I do it?

12:30-13:30 guided tour for the LMS (moodle): introduction, functions and tools...

13:30-15:00 lunch

15:00-16:00 guided tour for the LMS (moodle): introduction, functions and tools...

16:00-17:00 translate your curriculum into a LMS: moodle... first integration

#### TUESDAY 16/10/2018

9:00-10:00 competence-based curriculum plan: using your curriculum as examples.

10:00-11:00 roles in LMS courses: teacher, students...net-ethics, deadlines, transparency- portfolio, cooperation among participants in an online course

11:00-11:30 break

11:30-13:30 synchronic communication tools (chat, videoconference...)

12:30-13:30 synchronic communication tools for e-learning (e-mail, blog feedback, theme discussion area)

13:30-15:00 lunch

15:00-17:00 production of trigger and video lessons; audiovisual tools; objectives, functions...

#### WEDNESDAY 17/10/2018

9:00-10:00 start the production: making your own course; objectives and content structure

10:00-11:00 tasks and assignments

11:00-11:30 break

11:30-13:30 presentation of the first draft for your courses

13:30-15:00 lunch

*Free afternoon (possible: boat trip to Shkoder Lake)*

#### THURSDAY 18/10/2018

9:00-9:30 introduction and key elements to online survey: LimeSurvey

9:30-11:00 how to start building the survey and configuration?

11:00-11:30 break

11:30-13:30 features and logic of a questionnaire

13:30-15:00 lunch

15:00-17:00 building, launching and testing our online survey production