



Integrating new technologies & ways of learning in VET

Skills for Jobs¹ journey till March 2019

Introduction of new IT based technologies and ways of inclusive learning (NWOLL) in Vocational Education and Training (VET) is one of the 'Skills for Jobs' (S4J) pillars. This process was gradual, first supporting administrative functions, than class activities and later as an enabler and enhancement of apprenticeship. All IT systems are open source, customized, trasferable and were accompanied with capacity building activities delivered through coaching.

SMAP (Sistemi i Manaxhimit të Arsimit Profesional / Vocational Education Management System) was introduced to digitalise the school processes and reporting. The system accommodates the specific needs and the workflow of the vocational schools in all aspects such as teaching administration, student files, teaching programs, assessments, grading, notification, human resources and financial etc. The system provides benefits through significantly reducing the time needed in completing the daily tasks and reporting. After piloting it in S4J partner providers, the system is being handed over to the national authorities and will be used in a national scale.

When it comes to the blended learning approach, besides the introduction of platforms and other ICT related tools, S4J interventions aimed to improve the class based activities by making teaching and learning more attractive through gamification of learning. Teachers were coached on how new concepts and processes can be better explained and embraced by students through playful class activities such as competitions, findit, crosswords, pantonimes etc. Positive atmosphere created in the class increased the motivation for learning and resulted in positive effects for the teachers as well.

Introducing apprenticeship in VET is an important pillar of S4J and new technologies supporting new ways of working were introduced. Remote apprenticeship is a new model for ICT students in small localities, who were matched with a hosting company in capital city and collaborate remotely. Companies, teachers and students, develop learning plans per each group, composed by projects, tasks as basics to start working in this company. Progress is checked through task management system and regular communication once per week is mostly organised via skype.

S4J project, during this phase aimed to test different approaches to introduce blended learning, combining online delivery with classroom activities aiming to make the best use of each element in the frame of achieving learning outcomes. Different solutions were tested and carefully monitored, mostly focusing on teachers' practices. In the recent months, the focus was put on communities of practice as modalities of sharing best practices and preconditions to foster innovation as continuous professional development policies at provider level.

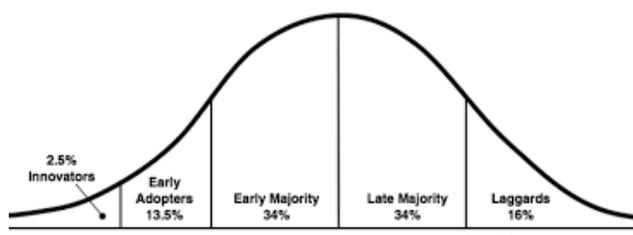
¹ 'Skills for Jobs' S4J is an SDC project implemented by Swisscontact. The project aims to improve the quality and offer of Vocational Education and Training in Albania. Since 2016, S4J works closely with 7 vocational and education training providers and aims to integrate innovative approaches, processes and instruments to improve teaching & learning process, networking and collaboration with business partners, and performance driven management of providers aiming students and trainees higher employability.

[Facebook: Aftësi për Punë S4J](#); [Instagram: @skills for jobs](#); [Twitter: @skills for jobs](#); [LinkedIn: Skills for Jobs Albania](#); [Subscription to the newsletter: al.info@swisscontact.org](mailto:al.info@swisscontact.org)

Process to integrate New Technologies & Ways of Learning in VET

The new methodologies incentivized in VET were a combination of best practices but new for a teacher and/or institution, and of new technologies introduced to address challenges the system faces such as lack of updated and attractive learning materials and disengaged/not interested students. This initiative opted to make learning in school more effective and interesting and combined with improved work-based learning component of the project, it aims to increase employability and employment. Reshuffling the old ways of learning, increasing teachers capacity, modernizing the infrastructure and use of technology are also supposed to increase interest and trust on VET and attract more students².

Following patterns of strategies aiming to introduce innovation, S4J intervention was gradual, first on individual level focused on innovators and early adopters³ and later at an institution and community level aiming the consolidation and sustainability.



Motivated and curious enough, teachers embraced new ways and technologies and were willing to try out different methods in and outside their classroom. Further on, other teachers were following the stream either replicating good examples or proposing good examples worth being replicated. After the cases were finetuned with the assistance of pedagogical and virtual platforms experts, a Knowledge Fair was organized in May 2018 to disseminate these cases with colleagues of S4J partner schools. 24 cases/teacher practices were presented, on collaborative and interdisciplinary learning, introducing new technologies such as international virtual learning platforms (Moodle, CISCO, MIA) and technologies (e.g 3D printing). A list of documented cases (including one example) of 2018 and identified cases for 2019 can be found in Annex 1 & 2.

Findings from qualitative research on teachers & students experience with blended learning in small scale (May, 2018) acknowledged the benefits from this experience in creating positive emotions and attitudes toward teaching and learning, improving the climate in the class, increasing inclusiveness & collaboration. Furthermore, in these cases was observed the improved quality and outcomes of teaching and learning increasing access to knowledge, deepening the understanding of new concepts, combining different methods, improving assessment practices etc. Teachers appreciated the possibilities given to them for personal and professional development. There were problems as well raised such as technical difficulties mostly with internet & electricity and limited access to devices and limitation of learning process during school schedule. It is clear that applying the blended learning practices pays off, but at the same time there are preconditions to be fulfilled. Furthermore, initiatives need to be taken to disseminate properly the best cases and create the critical mass of early majority so the good cases don't remain isolated. It is imperative that school managers promote the best practices, excellence in teaching and learning processes and establish a positive climate in the school. For this, clear strategies, policies and practices need to be developed.

² Around 20% of secondary education students choose VET

³ See Rogers theory on Diffusion of Innovation

Continuous improvement in introducing new technologies & ways of learning

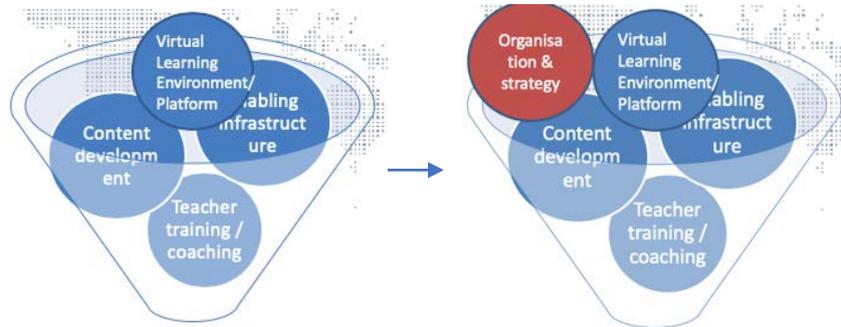
A step by step process was undertaken to introduce new technologies and ways of learning. The figure below shows the pilot phases this intervention went through and the focus on each step aiming to adopt as per lessons learned in each phase.



Over the last months, S4J intervention was focused on establishing good ground for a sustainable intervention in teachers, providers, community and national level. Since July 2018, the intervention was focused on establishing enabling ground for upscaling and continuous use of new methods and techniques. As per the *teachers*, besides pedagogical support, teacher update in their technical field related to the professions they teach, became a priority during these months. In order for teachers to be able to grasp and bring in the classroom the recent development, industry trainings with practitioners in the field were facilitated, focused on novelties in the industry, latest technologies and resources for teaching and learning materials. At *intervention* level, the introduction of a Virtual Learning Environment (VLE), besides system customization, was focused on creating good capacities among teachers to develop digital learning materials. At *provider* level, S4J worked with management level and teacher training coordinators in development units to establish a continuous professional development (CPD) policy drawing upon a needs assessment and internal development plan. *Community* level was introduced as well during this period, where groups of teachers of the same subject worked collaboratively to develop learning materials, exchanged teaching plans etc. In the recent months, S4J exchanged with *national* actors and other donors in coordinating activities for nationwide solutions, including blended learning solutions. S4J is considered a key actor in providing insights for the national VET teachers initial and CPD strategy and supporting providers in establishing CPD processes.

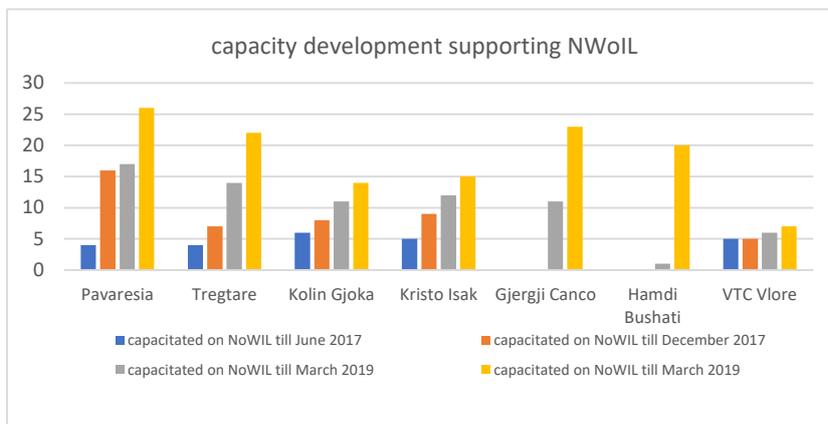
Intervention Strategy Components

There are five interventions to implement this strategy and different importance was given to them in different periods/pilots. In the sections below will be offered further details on the progress.



Teacher Training/coaching

Number of teachers trained and coached on new ways of learning has increased lately and in some



selected activities such as introduction of 3D printing technologies and e-cars, the students were involved as well. Nevertheless, there is still a high need for improvement in terms of application of these practices & dissemination in different profiles and providers. Especially in new schools joining in October

2018, e.g Hamdi Bushati, there is still need to improve in terms of new technology use. In this particular provider, the project was mostly focused on the establishment of development units⁴ and quality of apprenticeship. Teachers were introduced to Virtual Learning Platform (VLP) but follow up coaching is still in initial phase.

Pedagogical coaching continued to be provided and 30 cases are identified as good practices in preparation for Knowledge Fair 2019. Young teachers particularly showed interest in this regard.

During this reporting period, at project level, teacher's capacity building focus shifted to industry training and Work Based Learning (WBL). Both these initiatives are expected to bring the school and private sector closer to each other and update teachers with the latest developments but also align with the other modalities of learning (WBL). A concept note for **industry training** was prepared, indicating the multiple benefit in updating with the newest technologies/developments in certain sectors and collaborative work in digital learning materials development. Since June 2018, industry trainings were facilitated to support the diversified offer in tour guide, insurance and update on technologies of e-cars, 3D printing, financial software like Alfaweb in economy, smart home, safety standard in electrotechnics. The project objective is to train 100% of vocational teachers/instructors,

⁴ Development Units are organizational structures embeded in each VET provider, covering non teaching support functions as business relation, career orientation, continuous professional development, curricula development, institutional marketing, tracer, cooperation project design & implementation.

thus other trainings are planned (Computerized Numeric Control, Heating Ventilation and Air Conticioning, Novelties in electrotechnics & electronics, Hotel Management, Entreprenurship, CCNA Routing & Switching etc.).

Communities of Practice (CoP) for capacity building purposes were introduced in September 2018 with an activity of different layers, participants and purposes. *Teacher training coordinators* are an important and active CoP with active members and a leader. Members have successfully accomplished a provider-based teacher needs assessment report and identified training priorities. Categories of NWoIL and Industry trainings were included as categories/areas of further training. While NWoIL was highly requested compared to other areas, it was quite difficult for teachers to articulate needs on industry trainings. At *subject level*, there were 2 layers of groups created with 3 to 27 members: as per field of teaching (3 groups: general education, ICT, Tourism and Hospitality) mostly exchanging on teaching plans and methods; and subjects (10 groups: natural science, economy, foreign languages, ICT, marketing, esthetics, hotel management, cultural heritage, tourism and environment, food and beverages) collaborating in learning materials development. At *school level*, the community is established and is supposed to function based on an internal capacity development plan. Pedagogical coaches supported initially the development of these plans guiding cases and topics to share. School-based thematic retreats covering topics of interest were organized as well. New ways of working are promoted while facilitating these communities, through applying remote/online collaboration tools (at least 70% of meetings and 90% of group communication were organized online), participatory facilitation techniques, use of technology to gather instant feedback etc.

Virtual learning environment

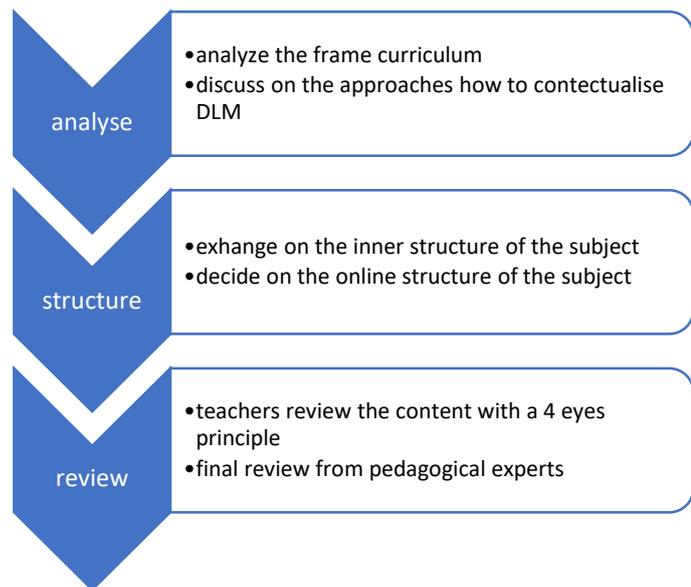
After piloting Moodle, S4J supported the customization and translation in Albanian of a virtual learning platform (www.mesovet.al based on Moodle, an opensource platform) to support interactive/blended teaching & learning and knowledge sharing/collaboration among teachers who will continuously contribute to upgrade the materials creating an open education resource for VET. Pilot course (in [Citicenship](#)) was prepared as per required pedagogical and technical standards. The aim was to provide blueprints for all functionalities and serve as practical example for the teachers. Instructions in Albanian (including [video](#) materials) are produced and the on-the-job training of interested teachers started for 31 teachers.

International standard platforms continued to be active such as [CISCO NetAcad](#) for ICT students and teachers. Till Feb 2019, 26 courses are opened for 417 students enrolled in [S4J NetAcad](#) and 96 are CISCO certified students in IoT, Packet Tracer; IT Essential; there are 16 certified CISCO instructors in partner schools) & Microsoft Imagine Academy for general IT teachers (materials of 30 courses are downloaded and found useful to support IT classes).

Digital Content Development

This intervention was focused on teacher and S4J partner providers level to draw lessons learned that can feed a national system currently facing lack of good and updated learning materials. To prepare digital learning materials (DLM), till July 2018, a total of 69 teachers were trained and 14 were directly coached and worked collaboratively using the four eyes principle to upgrade existing materials into more inclusive and serve to an active teaching & learning. Respective protocols and quality assurance mechanisms for digital learning materials were developed. A different approach was identified for 3 main groups – general education, ICT, Tourism & Hospitality.

Teachers of tourism and hospitality were more intensively involved in editing and producing content. They worked in groups and were guided by pedagogical experts based on the same methodology and process explained in the figure on the right. Blended learning was used as well in this development process, combining face to face an online communication. The teachers have prepared their part of materials based on the procedures, through on- line cooperation between teachers and pedagogical consultants. Every teacher has improved a part of material based on instruments and the suggested structure. A final review was



done and after the final proofreading, these materials are gradually being uploaded into the platform. Even if it was slower than the planned process due to teachers workload during academic year, it resulted to be a very effective capacity building process and fostered the collaborative working modality.

While general education has access to the necessary materials (text books), there is lack the contextualization with the occupation. Given this, content development for these subjects was concentrated in creating *learning situations* as applications of these subjects in the profession/industry. Literature teachers are working with the students to prepare a technical vocabulary; the physics teacher is integrating the crossword as a game for the terminology and the questions are deriving from the occupation; the English teacher is preparing a video instruction; exercises of math with situations in tourism, economy, and ICT are already inserted in the platform. There is a big potential for this element in the future steps because the general education teachers are also better prepared in pedagogy.

Industry/expert trainings received were required to have as output learning materials produced together with the teachers. For the moment, this process is being tested for insurance and tour guide, profiles .

Enabling infrastructure

In terms of enabling infrastructure, environments to support learning (blended learning classes, labs, infotheque, training firm) and working (teachers' room, career centre) reached 49, making best use of common learning spaces and providing accessibility to persons with diverse abilities. Learning and working areas are reconceptualized as innovative, colorful, with modular equipment that allow collaborative work. Computers available for students are stationed in charging stations that enable safety and mobility from one class to another as per teachers need.

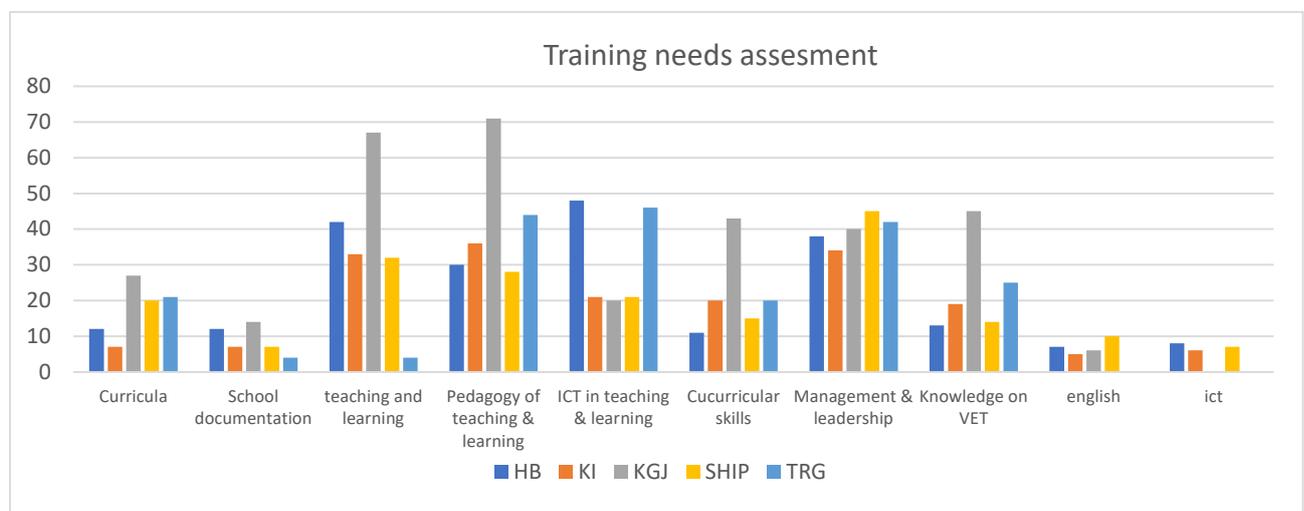
New industry standard technologies were introduced such as 3D printers, CISCO CCNA equipment and the electric vehicle workshop. All teachers have access to a personal computer which they can use at any time and place. To ensure the mobility and possibility to teach and learn in all school area, high speed internet is provided in all schools. The wireless infrastructure and improved connectivity create

more possibilities for the student’s learning environment. The access and users experience is continually being improved, ensuring a reliable connection and safe content, enforced in assistance with project. In five schools, collaboration equipment is installed to facilitate new ways and distant working. In each career centre there is a high-quality camera used frequently for online conferencing and coordination meetings.

Aiming the sustainability of investments, a detailed audit and behavioral change was performed. At the same time, providers coaching on financial management and preparing investment plans will be finalized during this academic year. The project is facilitating the creation of a culture and practice of maintenance. In this regard, the staff is trained and the IT maintenance is contracted, temporary financially supported by S4J but to be budgeted in 2019.

Organization & strategy - Teacher Training function

During this reporting period, it became more and more important the role of the internal processes and procedures to support the further development and discussion of NWOIL. In this regard, the role of the teacher training coordinator in development unit started to be in the center of planning CPD activities as per school level. A comprehensive training needs assessment was prepared indicating the most needed training. Data from this analysis are shown in the graph below reporting the number of teachers who rated a certain field as high or very high. It was interesting to notice that teachers are not able to identify their needs in industry training. As a result, experts organized meetings with them to explore the fields and themes.



It is clear that in many cases, the procedures are designed and planned in paper but when it comes to the execution, providers lack a lot of commitment and organizing capabilities. In this regard, the S4J foesees to streamline project related activities with the school pace and processes.

Challenges & lessons learned

There are several challenges identified so far, used as lessons learned for the design of the next steps.

- Teachers are a crucial actor in enabling a more student-centered and innovative ways of learning. Use of technology is effective if teachers integrate the right tools on a clear purpose

and combine it with face to face activities of learners. Technology is attractive but should be considered as tool.

- Introducing new technologies and ways of learning is a gradual process that starts with innovators, continues with early adopters and should reach the early majority so effects are tangible in a wider scale. Encouraging climate and policies of innovative methods is imperative to disseminate experiences. Schools should install a strategy on continuous professional development where sharing and peer support becomes a norm.
- The new concept and refurbished premises like blended learning classrooms, infotheques, and other common spaces, with an approach towards group learning and use of technology have a positive impact on the satisfaction of the pupils and teachers. Nevertheless, the infrastructure audit report indicates a standard use, thus further support is needed to be more innovative explore more scenarios of making best use of the existing resources.
- Upscale of NWoIL at provider and upper level does not necessarily need expensive investment but rather provider commitment, readiness to innovative, collaborative work and making best use of already developed, accessible and free/open source systems.
- There is an increase of the interest in the learning process when learning is based on the industry standards and real-life experience like e-cars lab, computer networks labs, 3D modeling and printing.
- Communities of practice are a modality that pays off and should be consolidated and intensified in other project areas.
- The process of learning materials development is very important in teacher's professional development but if they are the producers, the process takes time and more resources are needed to fulfill all the needs. In this phase, the focus was in creating models and pilots. In the frame of sustainability, the local capacity development and links to the national system of content development are needed.

Annex 1: Best Cases 2018 and 2019

Examples of cases presented at the Knowledge Fair 2018

1.	Student-centered learning in general education subject	10
2.	Learning situations - Link Literature to the occupation	12
3.	Explore the occupation by implementing it into practice.....	13
4.	Plan, monitor and evaluate practical learning/apprenticeship	14
5.	Foreign language as a communication tool	15
6.	Wiki as an interactive method	17
7.	Student-centred learning in vocational theoretical subjects.....	19
8.	Games as a tool for reflection	20
9.	Student portfolio via Moodle	21
10.	CISCO for ICT students	22
11.	Research as a pedagogical tool.....	23
12.	Project-based learning.....	24
13.	Implement a project to ensure professional improvement	25
14.	Games as stimulators of the desire to learn.....	27
15.	Videos as a teaching tool	28
16.	Remote ICT Apprenticeship	29
17.	Using Microsoft Imagine Academy	30

1. Student-centered learning in general education subject

Subject: Albanian History, Grade 12

Teacher: Selman Feraj

School: Industrial School, Vlore

Learning Outcomes

The student:

- Determines the historical circumstances that dictated the need for the Prizren Assembly;
- Explains the organization and platform of the Albanian League of Prizren;
- Highlights the efforts of the Albanian League of Prizren for the protection of the Albanian territorial integrity;
- Analyzes the role of the Albanian League of Prizren in the internationalization of the Albanian national issue and the increase of national awareness among Albanians.

Context:

Through this lesson, students will be encouraged to explore, discuss, guess, in order to achieve a more thorough understanding of historical circumstances. As part of this chapter, students have previously explored historic situations in the Albanian territory and beyond, to use in this lesson that gives them the opportunity to summarize why the Albanian League of Prizren was of special importance to the national issue. Until this moment, students have seen documentaries, explored online materials, in order to generate an independent and thorough view.

Delivery

Students are asked to list events that occurred before the League of Prizren, such as: Tanzimat Reforms, the Treaty of St. Stephen, the Berlin Congress, based on the information they have previously found on the Internet, divided into groups. They are all written down on the board by the teacher following a certain timeline. Subsequently, students in groups (same groups they worked in to collect information in advance) work on structured records keeping, according to the tasks for each of them:

Group 1: Determine the historical circumstances that led to the Albanian League of Prizren;

Group 2: Argue the position of the "Porta e Larte" for and against the League as well as efforts to protect the Albanian territories in the north and south;

Group 3: Analyze the political platform of the League and internationalize the Albanian issue.

The teacher moves from group to group using an observation card keeping notes on how the group is working. The work of each group is presented afterwards.

At the last stage, in order to complete the cluster on the Albanian League of Prizren, a mind map was used, prepared in advance for the work of each group (<https://app.wisemapping.com/c/maps/3/try>).

The groups work in parallel on the electronic platform. The homework assignment requires that the mind map to be filled in with an argument from each student by sending the link online.

Learning impact

Exploring historical issues in a wider context than just the topic at hand helps students to build long-term cause-effect relationships to reflect on the effect of the international context on the Albanian one. This process is important to understand the history of Albania through drawing the attention on the facts, events from world history that have influenced the history of the country and that students have dealt with in grade 10. This process is challenging for students, so building of the concept map helps them to memorise the event for a long time.

The students were assessed for the group work by means of the observation cards, and feedback provided by the teacher during the presentation and argumentation of the issues.

2. Learning situations - Link Literature to the occupation

Subject: Literature & Traditional cooking, Grade 12

Teacher: Alketa Ismailaj

School: Comercial school, Vlorë

Learning Outcomes

At the end of this process, the student:

- Lists the characteristics of each village in the field of culinary, vegetation and cultural traditions;
- Selects traditional songs and argues their literary values;
- Selects and analyzes the details of culinary recipes according to the village tradition;
- Assesses the role of literary, culinary tradition and beyond as a competitive offer for clients;
- Cooks the dishes in the kitchen with the help of the kitchen instructor.

Context:

" Labëria flavor", as an interdisciplinary project between literature (folklore chapter) and cuisine, will inspire and teach students about the traditions, customs, traditional cuisine, vegetation, characteristics of the areas selected from Labëria. Students bring in the rich culture of these villages by doing individual and group research work. The students rebring traditional recipes cooked in a new way with characteristic vegetation of the area, as well as the rich folk culture with its specificity and beauty.

Delivery

For the realization of this project, the teacher focuses on folklore and folkloric sources, highlighting the great values of our ancient and varied traditional national wealth. The students of the first years of the Hospitality-Tourism and Economy-Business direction were selected and divided in four groups, which coincide with four villages: Tragjas, Dukat, Kuç and Gumenica. They were tasked to gather information on history, relief, vegetation, artistic traditions and traditional cuisine, geographic location, artistic traditions of the trio polyphonic isos.

The materials collected by students, photos, recipes, interviews, etc., were included in the student's portfolio, while the presentation of the project and the cooking of traditional dishes were evaluated by the students themselves for each group. The students were assessed on their work to look for and gather information, organize and perform group work, select specific cooking recipes, and the rich collection of the photos they made.

Learning impact

Searching and evaluating native country traditions helps students shape their national identity and utilize these characteristics to be successful in their occupational field. The student selects standards, creates a mindset and vision that fits in with the needs of the client who requires quality of service, but also a unique, competitive offer that enables the competition. This phase-in and long-term work recognizes the students closely with the inexhaustible and unique wealth of folklore, cuisine, vegetation and history of certain areas of Labëria; encourages them to create new dishes based on tradition and enriching them with local elements; inspires them and makes them love the specific songs of the polyphonic isos, inheriting it further and in the generations to come; capacitates them to present individual and group work.

3. Explore the occupation by implementing it into practice

Subject: Practical learning, Website Development, Grade 12,

Teacher: Anisa Melishte

School: Technical-Electrical school, Tirana

Learning outcomes:

- The student uses different sources and techniques of collecting and using the information necessary for their personal and professional development;
- Designs web pages through the use of basic HTML and CSS technologies, through the processing of various graphic, audio and multimedia elements and the use of contemporary applications;
- Develops dynamic interactive pages through the use of technologies and programming techniques such as Javascript, PHP, AJAX, using databases through a database management system and link them to web pages;
- Shows initiative for problem solving through research and creation.

Context:

Students learn through concrete web design projects that they do during their practical learning, from research to a topic of significant social impact to the final presentation. Competences are best obtained through concrete, continuous work to achieve a more professional product compared to the case of separate exercises for each competency. The student is faced with a situation that is closer to the profession of web developers.

Delivery:

For project work, at the beginning of the school year, pupils are randomly divided into groups . Each group chooses a project theme of a particular field by consulting with one another and with the support of the teacher. The themes are selected so that the project has a certain social impact. For each topic the project defines the purpose and a brief description of the functionalities that the website will provide. Projects include all the LOs that are to be achieved in the practical learning modules. At the end of the school year, each of the groups presents the completed project. To motivate students, continuous support, counseling and evaluation is provided for the realization of concrete projects in web development. The best projects are published on school social networks, promoted in different events within and outside the school as a product of student work.

Learning content:

Through project work, the student engages physically, mentally and emotionally in performing various tasks in the professional, personal and social context. He/she should respect the group work principles. The student manifests entrepreneurial and presentation initiatives and skills. The student has used knowledge acquired in other subjects such as foreign languages, writing, design, etc. Project development facilitates the learning of practical innovative, design, and research skills through creative student activities. The project also benefits other students. Continuous assessment by the teachers and students of other groups helps each of the groups understand if they are doing work properly and how to improve their product.

4. Plan, monitor and evaluate practical learning/apprenticeship

Subject: Practical learning, Kitchen

Teacher: Merita Koço

School: Comercial school, Vlorë

Context:

Changes in vocational education are also accompanied by changes in the way of thinking about practical learning experiences. For the delivery of practical learning/apprenticeship, each vocational teacher and instructor plans the classes in line with the learning outcomes for compulsory modules and selects the elective modules at the beginning of the school year, plans the modules to be delivered at school cabinets and in the company/business, determines the learning outcomes in accordance with the modules and practical activities, plans the tools and materials needed for the development of the modules, and plans the special classes that will be implemented in businesses or their participation in the school.

Delivery

To ensure the most effective implementation of school-based practical learning classes, each instructor bases their work on the frame curricula of the vocational module programs and the daily plan detailing:

- Practical activities to be conducted
- Learning outcomes based on the competences the student should acquire.
- Delivery methods.
- Tools and materials needed for delivery.
- Facility: module delivery cabinet or mentor business
- Student assessment methods.
- Professional competencies acquired by the student not only involve professional knowledge but also other elements related to:
- Skills that the student should demonstrate to apply knowledge while performing a variety of activities, and
- Attitudes that the learner should develop to fulfill the tasks according to certain criteria and standards.

Learning impact

Practical learning/apprenticeship in the business in accordance with the teaching modules develops and increases the student's responsibility for the implementation of practical professional tasks through work-based learning and forms and increases the extent of professional competencies acquired by the student. Work-based learning affects the students' motivation rate, enhances their communication and work ethics, enables the mentor, teacher and the practical learning instructor to evaluate students objectively and impartially.

5. Foreign language as a communication tool

Subject: Italian language, Grade 12

Teacher: Zamira Shehaj

School: Comercial school, Vlorë

Learning outcomes

At the end of this project, the student:

- Lists the tourist sites in the city of Vlorë, clearly expressed in Italian;
- Explains tourist itineraries their location and the respective prices in detail;
- Communicates clear information about the traditional and modern restaurants of the city;
- Drafts a structured sheet in Italian about the tourist sites in the city of Vlorë.

Context:

Hospitality -Tourism students need to know and be familiar with the Italian language as one of the most used languages by the many tourists visiting Vlorë. The time available to teach Italian language at school is only 1 class a week, therefore, insufficient to achieving language mastery. As such, it was considered necessary to use other activities that give students the opportunity to use the Italian language both in writing and in oral communication.

Through this project for the development of a leaflet in the Italian language, the student enriches their language with the necessary terms in the field of tourism and is able to explore and interpret the touristic itineraries of the whole city with the respective explanations.

Delivery

Students of the grades XI of Hospitality-Tourism profiles worked on the development of this leaflet during one full academic year. The students of each class were divided into groups. Each group first looked after collecting and selecting the material.

The task of the first group was to collect information on the most important historical points such as the Flag Square, Kuzumbaba and museums.

The second group did some research to identify restaurants providing modern (Italian) cuisine as well as the most prominent traditional restaurants of the city (restaurants were the one which hosted students for the apprenticeship).

The third group collected material on the most prominent tourist sites of the city as well as the blue tourism (Llogara, Kalaja, Karaburun, Sazan, Zvërnec).

The fourth group gathered information on the prices of different itineraries.

After the selection of the information, as a preparatory stage, the students worked on the information and photos which were presented in all classes on video. Following the preparation of the leaflets, they continued their distribution on the Lungomare on the day of the opening of the tourist season with the Italian folk group, and not only. The final stage for the students was to welcome and receive Italian tourists near the port and hand out leaflets.

Learning impact

Throughout this process, students were continuously assessed on the ideas and their implementation, meeting of the deadlines for the submission of information and how they communicate in the Italian language.

The identification of touristic sites in a well-structured and harmonized time and space dimension, featuring a functional leaflet, helped the students to develop not only their communication skills but also encouraged them towards new ideas in achieving goals within the profile and the occupation concerned. In the same time, they upgrade digital skills in searching for and preparing communication materials.

6. Wiki as an interactive method

Subject: Tax and customs system, grade 13

Teacher: Valbona Çokaj

School: Vocational school of Lezha

At the end of this class, the student:

- Lists the main methods of excise duty;
- Describes two types of excise;
- Analyzes the differences between excise types.

Context:

In this lesson students are encouraged to explore, discuss and evaluate the methods of excise levying. In the content of this chapter, students have previously explored the object of the excise that is used in our country. They have done this through online searches of the Albanian tax legislation for the purpose of acquiring knowledge.

Delivery:

To help learners identify the main methods of excise duty, they recall the previous knowledge through questions about the excise system, the goods to which excise duty is applied. Then they use the Wiki method (on the Moodle platform) to work in groups. Students work in groups on problematic situations presented to them during the previous class.

Group 1: A coffee producer that has acquired the status of suspension regime puts into the production process 100 kilograms of coffee for which he has not paid any customs fees to only find out that 25 kilograms are technological loss and 75 kilograms ready-made product issued for sale.

How much liability is expected to be paid based on the technological coffee beans loss provided for in the Excise Law?

What are the procedures provided by the excise law if the company wants to reduce the excise duty? What are the documents used by the company to make the declaration in the customs information system for all this process?

How much does the entity pay if it applies based on the procedures provided for in the Excise Law to reduce this obligation? Loss allowed for coffee is 19%, caffeine excise is 60 leks/kg.

Group 2: What are the causes and consequences affecting selection between two types of excise? Use the cause-effect graphic organizer.

Group 3: Show the differences and similarities between ad valorem and specific excise. Use the Venn Diagram.

After 10 min, each group responds to the respective situations. In the last phase, a two-part diary is used, which students complement with the main concepts of the topic.

Learning impact:

Students are assessed on their participation during group work, skills displayed during knowledge building, co-operation, exchange of ideas and presentation of work. The use of different methods,

especially through the use of the Moodle platform, facilitates the building of new knowledge, analyzing and evaluating different situations. The Wiki method has helped them to look at each other's tasks, apart from the teacher's evaluation. The use of a cause-effect organizer that affects the choice between two types of exercise helps in the effective approach of learning.

7. Student-centred learning in vocational theoretical subjects

Subject: Knowledge on macro-economics, Grade 11

Teacher: Elda Polovina

School: Vocational school, Berat

Learning outcomes:

At the end of this class, the student:

- Lists unemployment costs;
- Distinguishes economic costs from social costs;
- Distinguishes the four types of unemployment as defined by experts;
- Illustrates unemployment costs in our country with concrete examples.

Context:

The reasons why the macroeconomic problems need to be studied are not only economic but also civil and political. Studying and avoiding phenomena such as inflation and unemployment are important to us all as citizens, as consumers, savers or business people. During this class students will create a clear picture of the economic and social wounds that cause unemployment and will experience unemployment, which is a challenge not only to the affected individual but also to the government and society as a whole.

Delivery

The students watched a 2-minute film sequence on which they did some brainstorming. Some students presented their reflections on flipcharts, while others through WiseMapping on Smart TV. The main well-thought concepts were presented in Power Point. The explanatory material was accompanied by photos and schemes, in order to stimulate students' critical thinking, listening and speaking. Preliminary work of students on the subject as well as flipchart presentation of the objectives and conclusions helped to understand the theoretical concepts.

In order to involve all pupils in achieving the learning outcomes, the students worked in small groups with 4-5 members. Each group had different work sheets on the lap top. The presentation at the end of each group work prompted discussion in other groups as well.

Finally, the students completed the minitest. To make sure that the lesson did finish in the classroom, to push critical thinking and put the students to work for the next class, I asked them to watch the movie "The pursuit of happiness". Students had to write a reflective essay on the film if they believe that any negative phenomenon such as unemployment can be combatted. The essay had to be submitted to me by email.

Learning impact

The integration of technology with contemporary teaching methods created a positive impact on students. Unemployment was addressed in a broader context. Students realized that avoidance of unemployment is a vital element for the well-being of society and its development. Unemployment is the worst disease in the country's economy and students understand that monitoring the unemployment rate and drafting macroeconomic stabilization policies is a basic task of the state, but the individual can also use the critical thinking for successful solution of unemployment issues.

8. Games as a tool for reflection

Subject: Entrepreneurial behavior, Grade 11

Teacher: Nertila Baçi

School: Vocational school, Berat

Learning outcomes:

At the end of this lesson, the student:

- Explains the concept of decision-making;
- Implements the decision-making procedure in a concrete situation;
- Analyzes the decision-making process.

Context:

In this lesson which is mainly based on games, students will be capacitated to solve and analyze different problem situations related to group decision making. The game is a form of recreation and gives students pleasure, enables establishment of a structure, aims to and motivates students, provides intensity and solutions, is interactive and creates social groups, provides feedback that teaches, is competitive and gives adrenaline, includes presentation and arises emotions. The whole issue is treated in analogy with the business whose goal is to maximize profit and risk is competition.

Delivery

After students have become familiar with their subject matter and objectives, they open their account on Moodle and watch a video tutorial prepared in Powtoon for about 2 minutes. Then they discussed the video and the students list the steps of the decision-making procedure using a scheme.

Further, we move on to putting things in practice by playing the dice game. These are the steps:

The first step: Divide students into 4 working groups and give a name to them.

Step two: Present the task and distribute the game guide. The game will be played in three rounds. Each group selects one representative, who will throw the dice. The groups throw the cube/dice in turns, group A, B, C, D. The cube/dice will be thrown any time the group decides on a round. Points will be collected following each cube/dice throwing. If it lands on number 1, the winning points of the round are zeroed. The game is interrupted for that group that makes the decision not to play anymore. Step Three: Points are added up and the winning group is announced, who receives a gift.

The students analyze how they made decisions during the game through self-assessment. Each group works on the flip chart, places them on the board and presents them. Students were given work sheets as homework assignments with the question: "Identify the advantages and disadvantages of group decision making".

Learning impact

The competences that students gain from the game are: group work, decision-making and risk strategies, identification of different levels of risk. The game is an active form of learning that unites mind, body, and emotions, relieves the tension that is often caused by the efforts to learn and achieve high results. Students gain the ability to look through different perspectives, collaborate, help, to take part and solve problems. The most effective impact of teaching is shifting of the epicenter from the teacher to the student's actions.

9. Student portfolio via Moodle

Subject: Maths, Grade 11

School: Comercial school, Vlorë

Teacher: Lorena Gjonçe

Learning outcomes:

At the end of this lesson, the student:

- Defines learning and multimedia materials (ppt);
- Integrates graphs, homework assignments in interactive class. (Metronome Platform);
- Provides opinions on the other students' portfolio;
- Assesses his/her own portfolio on the integration of technology into the teaching process.

Context:

In this lesson (portfolio discussion and technology integration in the teaching process), students explore, discuss and navigate in order to make both the math subject and class more attractive and productive. This class includes all the three-month tasks that students have worked on, assembled and selected using the Metronome platform. Construction and interpretation of graphs are research tasks that students have worked on power point and downloaded on the platform, as well as a project to design a business plan. Incorporating technology into the portfolio evaluation process through the platform provides the most successful integration for all students.

Context:

The Moodle platform was used to involve students in the performance of portfolio tasks and rubriques. The students have already prepared and have their own portfolios in the file. Each of them is evaluated on their file. The integration of technology into the class involved students to work in a group helping one another to download materials and tasks on the platform. The project, which is among the main portfolio tasks, was developed by students through group work. Project entering management and project processing (in ppt) has seen all student involvement.

The class is divided in stages:

First stage: Throughout the semester students individually complete the portfolio with the materials and tasks, but also their platform profile.

Second stage: Each student presents and argues the creative, research and project tasks, which includes several stages and is developed in groups, but specifying individual responsibilities.

Learning impact:

The teacher performs student assessment on the basis of evaluation criteria, including point and grade bonuses based on the use of technology and self-assessment achieved by each student. Involvement of students in the portfolio discussion and evaluation process helps them to accomplish all the tasks and projects at best. The whole process extends over a period of three months, during which the students process the materials consulting the teacher as well. The purpose of the portfolio, namely the rubriques, the tasks, the project, closely related to technology, helped students learn effectively in maths.

10. CISCO for ICT students

Subject: Computer networks, grade 12-ICT

Teacher: Lorena File

School: Industrial School, Vlore

Learning outcomes:

At the end of this class, the student:

- Describes the user interface and commands of a CISCO router;
- Describes the routing process and distinguishes the types of static, dynamic, and default routing;
- Describes routing protocols, router boot sequence;
- Distinguishes RIP and IGRP protocols;
- Secures and restores the operating system and configuration of a CISCO router;
- Builds a logical computer network in CISCO.

Context:

By using of the CISCO platform and the programs it offers such as Packet Tracer and CISCO Aspire, students are encouraged to explore, discuss, develop and configure different types of networks in order to achieve a deeper understanding of the connections and configurations of physical devices. As part of this chapter, students first explore different situations depending on the client and the area or the environment where the network will be established.

Delivery:

Initially the class is divided into 3 working groups:

Group 1 sketches into Autocad the plan to build a network for a business;

Group 2 sketches into the Autocad the plan to build a network for a school;

Group 3 sketches into Autocad the plan to build a network for a lab.

Other members of the groups determine the equipment they need and develop the relevant documentation. Then each student develops the corresponding network based on the previously built plan. Each of them performs the appropriate connections and configurations for computers, switches, routers, hubs, etc.

At the end of task, the network connection is tested by sending e-mails from one computer to another. Some of them respond to customer calls on Cisco Aspire while playing the role of a technician.

Learning impact:

Students experience a real work situation using computer software that helps them to increase self-confidence and learn to work in the team, a very important professional skill for computer technicians. They understand the value of planning and maintaining structured documentation as a necessity for decision-making at higher levels. Through role-play, they simulate a real situation that puts them in the position of a CISCO technician who helps shape the skills they need to serve customers efficiently.

11. Research as a pedagogical tool

Subject: Microeconomics, grade 11

Teacher: Ermira Mani

School: Vocational school, Shkodër

Learning outcomes:

At the end of the lesson, the student:

- Develops questionnaires based on the purpose of the study;
- Calculates the unemployment rate;
- Interprets the results of unemployment by graphically presenting them;
- Suggests solutions to mitigate the causes of unemployment;
- Cooperates in a group and takes over their responsibilities.

Context:

Since students need to apply the knowledge gained through a practical assignment, the project method is chosen to facilitate this process. This project aims to conduct research and study work on preparing questionnaires and obtaining information to the school students about the employment status of their family members. They analyze this information in different contexts and give their suggestions regarding the improvement of the causes and, consequently, of the consequences.

Delivery:

The students involved in the project are students of the 11th grade of Business Economics direction. The project is divided into phases and tasks, duration and responsible persons are defined for each and every phase. In the first phase "Questionnaire Design", students compile the questionnaire in such a way as to obtain the appropriate information.

In the second phase, "Data processing and information entry into PPT", students collect and process the data by vocational direction.

In the third phase "Project presentation and evaluation", students present the findings of the study and provide their suggestions to improve the outcome.

Participants and groups of students involved in the project evaluate the presented tasks. Community and municipality representatives were invited to attend these presentations, who gave their feedback about the research conducted.

Learning impact

Through this task, students not only learn important issues related to the Micro-economics subject such as "Unemployment", but also try to research more to look for facts and to analyze the causes and consequences of unemployment in a country's economy by giving relevant suggestions to improve the situation. Group collaboration and the timely and quality collection, processing and interpretation of data are also important elements to be evaluated.

12. Project-based learning

Subject: Computer software in electro-technics, Grade 13

Teacher: Engineer Alba Qirjako

School: Industrial School, Vlore

Learning outcomes:

At the end of this lesson, the student:

- Analyzes the installation design of the building electrical scheme;
- Inserts and connects the elements correctly to the conductors as well as between them;
- Builds the scheme according to the requirements and controls the constructed scheme;
- Implements cad standards for the construction of electrical schemes;
- Is capacitated to solve real problems and take over responsibility for teamwork.

Context:

Knowledge, skills, attitudes acquired during the school years about electrical circuits, design of electrical installation, AutoCAD, should be put in the function of the final product. This project aimed to integrate the knowledge gained in "Electro-technics and measurement", "The design of an electric installation", and the "Development of electric schemes" modules.

Delivery

- The project was implemented in 24 classes distributed over 5 school days. Design your building in whatever way you like, meeting the minimum criteria;
- Your building should have at least two rooms connected to an entrance and an outdoor space with one light;
- Your building should be at least 50 "x 30" x 30 ";
- Your building should have electrical circuits in which the LED lamps are connected in different ways;
- Build the layout of the building using AutoCAD;
- Implement the electrical design of the building using electric CAD.

The main steps of this project were as follows:

Preparatory phase (design initiative, sketch and planning); → Construction of planimetry and electrical installations of the building in the AutoCAD program → Construction of the model → Setting up of electrical installations; → Design assessment → Reflection.

Learning impact

During the project implementation, the tasks were elaborated in different groups. Each group assumed the task in accordance with their special qualities and abilities. Performing group work also took place outside the classroom, promoting individual work. The development of professional competence to act is promoted through the strong link between reality and practice. One lesson was provided within the project work that integrated the content of different subjects. Students were motivated to do their work. The students cooperated with each other. The group members' views were respected. Strong orientation towards the problem capacitated students to solve the problem and acquire the decision-making competence.

13. Implement a project to ensure professional improvement

Subject: Basics of Entrepreneurship

Teacher: Enkeleda Lacej

School: Vocational school, Shkodër

Learning outcomes

At the end of this workshop, the student:

- Explains the difference between an entrepreneur and entrepreneurship;
- Identifies the differences between an entrepreneur and a manager;
- Lists the main skills of an entrepreneur;
- List the characteristics of a successful entrepreneur;
- Lists the meaning, functions, characteristics and competencies of entrepreneurship;
- Defines the vision, mission and goals of the entrepreneurs;
- Analyzes the steps to be taken to establish an enterprise;
- Analyzes the process of entrepreneurship development nowadays;
- Argues the relationship between entrepreneurship and the socio-economic aspect;
- Analyzes the relationship between entrepreneurship and human activity in the economic and non-economic aspect;
- Analyzes the causes of entrepreneurial failures.

Context:

Entrepreneurship is an essential element in order to prepare vocational education students for their work, but it is not always easy to understand what are the elements of a business venture's success just in theory. Exploring some successful entrepreneurial models in the context of Albania, which has an unstable legal and social structure that lacks the historical context of individual entrepreneurship, will help students reflect on the personal level on their occupation.

The workshop on entrepreneurship aims to create opportunities for business exploration through their interaction with teachers and students of economics-business and textile-confection directions in the technological school 'Hamdi Bushati'. This workshop is scheduled to have three sessions and will be held in the lab of the training firm.

The workshop will gather business representatives, teachers and parents. Business representatives will share some of their most successful experiences, giving advice to participating students. Afterwards the students will work on projects such as "How to become a successful entrepreneur" and "Entrepreneurial skills".

Delivery

Initially, students can get to know successful entrepreneurship cases in the city of Shkodra as a reflection opportunity, but also inspiration for the implementation of their project. Once students are divided into groups, they collect field data that will be important for project preparation, business plan, and the most accurate concept of enterprise work. The actors involved in the workshop will support the students to succeed. Projects are presented in front of everyone. This workshop encouraged students through the use of many teaching methods such as: debate, demonstration,

discussion, research, role playing, independent practice, project work, group work, simulation, independent study.

Learning impact

Student assessment was carried out by the actors involved in the workshop using the following evaluation criteria:

- Find information about the invited entrepreneur;
- Record the results of each interview, also making relevant notes on the responses given by entrepreneurs; Define: In which responses their thoughts overlap, and In which responses their opinions are different or opposite;
- Identify entrepreneurial qualities and skills most noticeable from interviews conducted;
- Report findings in the lab;
- Draft a summary matrix based on the final outcome of group work;
- Laboratory discussion on the results of work and drawing conclusions;
- Record all the steps and work results on large sheets placed on the walls of the lab.

This workshop enabled the implementation of the information-knowledge-skill cycle. The students discussed the challenges at the policy, laws and regulations level; at the private sector level in implementing the standards and regulations for a successful enterprise; they drafted a plan and strategy to create a successful enterprise. Through this workshop, students not only received qualitative, contemporary information based on the context of their city but they can also apply their idea in laboratory conditions. This way, the information-knowledge-skills cycle connects all teaching disciplines and subjects with practical application of concepts. This workshop helped students create their profile in the labor market.

14. Games as stimulators of the desire to learn

Subject: Electronics, Grade 10

Teacher: Jonida Haxhi

School: Technical-Electric school, Tirana

Learning outcomes

At the end of the class, the student:

- Draws the diode symbols;
- Defines the property of diodes;
- Understands how and when the diodes can be used;
- Analyzes diodes according to catalogs.

Context:

The teaching item is the repetition of the diode theme. In this lesson the students clarify concepts on diodes as important elements of electronic circuits. Repetition of the subject is made through various games in function of long-term memorization of concepts. The students have drawn the symbols of their diodes and their KVAs in different forms (in color, with millimetric paper, etc.) during this topic delivery. The diode parameters have been analyzed by studying different diode catalogs. Online research has completed the practical knowledge on diodes usage.

Delivery

The pantomime game

The class is divided into groups. Each group draws a diode on A4 sheets. The sheets in which students draw the diodes are then collected and mixed up. A student is selected from each group to draw one of the sheets. Using pantomimes the student describes the diode on his sheet. His group should find what kind of diode it is, define its property, and draw its KVA on the board. The group that comes up with a correct answer in the shortest time is the winning group. The winning group is then evaluated and graded.

"The owl's wedding" game

The students make a circle and place their right hand over the hand of their peer and the left hand under the hand of their peer. Each student articulates some concept of the topic and slams the hand of his/her peer. The game continues like this throughout the circle. Students who repeat a concept previously said or delayed to articulate a concept leave the circle. After one of them leaves, the game starts again from the beginning. The last remaining student wins the game. The winner is graded.

Learning impact

is a different way to tackle a learning item. Memorizing new concepts through interest-based memory is considered as the way to be followed in order to process information under a variety of conditions and effects, with one of them being the gamification. Adapting childhood games with the concepts gained provides students with a positive stimulation thus increasing their desire to be active. The game helps students build self-confidence, enhance social skills, and improve their time management skills.

15. Videos as a teaching tool

Subject: Tourism & Hospitality Practical learning

Teacher: Meri Simoni

School: Vocational school, Lezha

Learning outcomes

At the end of this learning process, the student:

- Uses different sources and techniques to collect and use the information needed to accomplish the task.
- Respects the working group principles and actively cooperates to achieve the agreed objectives.
- Assesses their peers and oneself based on the right criteria as a basis to improve and advance their achievements.

Context:

Hospitality-Tourism students have already many experiences in diverse businesses, which are varied, often very advanced, but sometimes incompatible with the concepts students learn in the vocational theoretical subjects. By collecting field data through video footage with their mobile phone, students can present models, which are then discussed in the vocational theoretical subject, to reflect on the best professional practices and to learn from the possible shortcomings. Thus, students can also be exposed to the constituent elements of the subject, but they do not have the opportunity to see them in the field as the business with which the contract is concluded may not provide these services. Such example is a laundry, which is only offered in large resorts. Students who have such experiences serve as experts for their peers, presenting them specifically how the cycle is run at the resort where they go for their apprenticeship. Exchange of experience and classroom discussion helps students for a more concrete and practical understanding.

Delivery

Students are helped to plan what they will be filming, how to process videos to share with others, how to play the role of an expert in their field, and how to give and receive constructive feedback. This process extends throughout the school year in the practical learning subject and relates to the modules of vocational theory as needed. The teacher is attentive to encourage students in the continuous information gathering. The teacher also guides the information structuring process in order to evaluate the most important steps of the process.

Learning impact

Theoretical concepts gained from the vocational subjects are more effectively disaggregated when illustrated with concrete examples filmed by students.

The vocational skills demonstrated by the student at the workplace are also explored by classmates through the materials prepared by the student himself/herself.

The student's attitudes and feelings during classroom activities such as ability to work in a group, the ability to moderate in front of an audience, etc., are put into use and improved throughout the learning process inside and outside the classroom.

16. Remote ICT Apprenticeship

Subject: Practical modules in ICT, grade 10

Teacher: Jetmir Shtejfni

School: Vocational School, Lezhë

Context

There is a wide range of collaboration forms between VET providers and companies and work-based learning plays an important role in future employee development, in the basis of each is continuous and intensive relationship between apprentice and host company.

In ICT sector, in national and international market there is a huge need for professionals in programming and graphic design. Regional analysis in the area where S4J operates, indicates a limited number of ICT companies and services provided mainly concentrated in retail and repair. The high added value occupations are mostly requested by the companies operating in the capital city, for internal and international market through outsourced services. Aiming the exposure of students to the industry trends and widen their vision on the ways of working in ICT, S4J together with a group of selected teachers, designed Remote ICT Apprenticeship scheme, tested first in Lezha and then in Vlora, implemented in collaboration with 11 companies.

Delivery

Remote ICT Apprenticeship follows all the steps of a normal apprenticeship but is delivered remotely and as a result implicates new supporting processes and technologies. There were 25 students enrolled in this scheme in Lezha school. Each student applied for internship, was interviewed and finally was chosen by the company. Students are divided in groups 5-6, each one linked with one company and guided by at least one mentor during practice.

Companies, teachers and students, develop a learning plan per each group, composed by projects, tasks as basics to start working in this company. Companies provide learning materials and access to online platforms such as Khan Academy, Udemy, to give the needed information on assigned tasks and projects.

The process is documented in an open source project management platform (papion.al) where tasks and projects are posted, monitored and reported. Regular communication once per week is mostly organised via skype to check on performance and explain new tasks. During the week, the students work on the tasks under the supervision of practical training teacher. The process is repeated every week till the completion of the task/project. Both company and the teacher participate in student's assessment.

Learning impact

ICT Remote Apprenticeship offers to the students the opportunity to learn and improve skills as well as be familiar with ways working as per the company demands. Being a dynamic sector, the exposure to the big companies is a great potential for students and teachers professional development. There were 98 students involved in the pilot phase, from two partner school. In several cases, we observe concrete products, mainly websites.

17. Using Microsoft Imagine Academy

Subject: Basics of ICT, grade 10

Teacher: Irma Allceniku

School: Vocational school, Shkodër

Context

Microsoft Imagine Academy (MIA), is the Microsoft online platform offering updated courses and content to train and certify students and teachers in ICT. The goal of using this platform is to support the delivery of the school-based curricula with updated materials and be introduced to a industry standard learning materials. Besides ICT students, the platform provides also basic courses and materials for introduction ICT courses in other directions. Use of MIA in school has resulted very positive because it enabled a more effective and attractive teaching process developed as per proposed lesson plans, proven as effective by MIA experts. Teaching hours are organised as per MIA learning paths that guide the student and teacher to absorb the skills needed by the industry.

Delivery

In this particular case, MIA is used in ICT class of Tourism and Hospitality to learn excel through the online courses proposed by the platform. The teacher designed a learning path based on students need. Learning paths are composed by different courses identified by the teacher as per student's entry level and desired learning outcome. Students are enrolled in the course and can access the platform independently at any time. Both the students and the teachers follow the learning progress. The teacher combined online learning with class exercises and discussions.

Learning impact

By using MIA, the students are introduced with virtual learning environment. They are exposed and have the opportunity to learn using the updated materials from Microsoft industry and pedagogical experts. The platform allows individualised learning paths maximising the use of time and expertise. Being at MIA virtual environment, the students can explore by themselves other courses of interest.

Annex 2. Best cases identified for Knowledge Fair 2019

Teacher/School	Idea	Details
Rovena Anamali (Shkoder)	Project based learning	<ul style="list-style-type: none"> - Structure an offer that comes to the school from third parties as a learning opportunity and process rather than only prepare the product. - Design the process to make sure that each learner develops based on his/her capacity (Vygotsky's zone of proximal development) - Collaborate with several profiles of school (T&H for cooking and serving, textile in designing the room)
Irida Selmanaj Velide Llana (Vlora)	Integrated teaching	<ul style="list-style-type: none"> - Gather authentic materials (photos, videos) on tourists activities in and around Vlora - Develop a website (preferred, in cooperation with IT students)
Dritan Karriqi (Tirana)	Student-centered learning	<ul style="list-style-type: none"> - Develop and hold an interactive teaching class in a technical subject/ group work – can we connect it to smart home/ 3D printer
Zinete Bejtaj Orieta Boraku Marsida Danaj (Vlora)	Thematic teaching – Internet research	<ul style="list-style-type: none"> - Develop learning of several subjects across a theme (Food and its impact in organism)
Kastriot Muhaj (Vlora)	Practical learning – individualised learning	<ul style="list-style-type: none"> - How to discover talents of students and develop it through the application in the practice lab – needs to be filmed
Eriona Puka (Shkoder)	Video voice over	<ul style="list-style-type: none"> - Interactive workshop for participants to learn how to do the voice over of a video
Dhurata Gojka (Berat)	CoP within the school	<ul style="list-style-type: none"> - Support young teachers to grasp new techniques - Mentoring on site
Stesi Laqja (Shkoder)	Internal professional development/mentoring	<ul style="list-style-type: none"> - Reflections of a young teacher who has just started working at school - How the internal PD supported her growth
Dorina Gjergji (Lezha)	Design of didactic materials	<ul style="list-style-type: none"> - CoP as a powerful tool to help the development of materials - CoP as peer support
Ermira Mani (Shkoder)	Internal PD	<ul style="list-style-type: none"> - Internal school developmental plan
Lumturi Marku (Tirana)	Interdisciplinary learning	<ul style="list-style-type: none"> - Integration of ICT in other disciplines
Arsida Shimaj (Shkoder)	Planning for center-based learning	<ul style="list-style-type: none"> - How to organize yearly plan for the exercise firm, so that students cover the curriculum in a center based learning - Challenges when number of students is high, in order to ensure small group work
Adriana Prenga (Lezhe)	Professional theory in practice in a school with no laboratory	<ul style="list-style-type: none"> - How to use the experience of students in their practical learning to learn about the practical aspects of a theoretical issue - Team work
Bora Miruku (Shkoder)	Career counselling	<ul style="list-style-type: none"> - How to integrate career guidance in school curricula and in dedicated room teachers
Ertjola Lulaj (Shkoder)	Inclusion of children with special needs in school – successes and challenges	<ul style="list-style-type: none"> - Present the case of a child with autism spectrum within the school and in the business - Develop qualities of the student himself and of the community of learners and teachers
Juliana Biba (Lezhe)	ICT in general education subjects	<ul style="list-style-type: none"> - How to support IT students to develop interesting learning materials for general education subjects (powtoon was suggested, other ideas welcome)

Lorena Gjonce (Vlore)	Use of moodle platform to teach mathematics	- Teaching math through moodle and get instant feedback
Zamira Shehaj (Vlore)	Storytelling	- Students create stories in Italian based on photos related to their profile (a kitchen, a restaurant)
Fatjona Durollari (Tirane)	Situation-based learning	- Contextualize a general education subject in order to support professional learning
Lindita Gjoka Ermal Mlika (Shkoder)	Thematic learning	- Teacher of Albanian Literature and history collaborate to study Scanderbeg - Plan and organize curriculum of two subjects - Design and follow work group of students
Alketa Islamaj (Tregtare)	Communication competencies	- Revisit communication competencies specified in literacy and analyze them for better communication of T&H students
Luiza Gjinollari (Tirane)	Game-based learning/ gamification	- Apply games for more efficient learning of Physics in VET schools
Lorena Gjonce (Vlore)	Math for T&H students	- Use math competencies to contextualize database collected in school-based practical learning
Neraida Dulaj (Vlore)	Mathematics for challenged students	- How to support students that have gaps in their learning
Besa Marku (Tirane)	Gender equality in STEM	- How to create a professional mentality based on the concepts proposed on gender equality
Falkao Vidhaj (Vlore)	Physical education as community development	- Develop teams which train over the weekend (school not only for learning)
Dhimiter Pushi (Berat)	Team building	- Use Physical education in developing team building skills (modeling and showcase)