

Tutorials for trainers and teachers













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1. INTRODUCTION TO PROJECT APPSHOE

Partners AppShoe project we have worked to provide innovative learning methodology based on the experience of training in the field of Italian footwear, to attract young people and not so young, to prepare them and they can get good jobs in the footwear an area with great tradition in the production of shoe sector, such as the Northwest Region of Murcia.

So we've tried to introduce an innovative methodology in training programs for employment of the Spanish education system, incorporating a number of elements to create opportunities for students participants to:

- either enter or become part of the educational system; and forming as intermediate controls in the footwear sector through the dual training.
- While they can enter the labor market more directly, as qualified through the various modules offered within the job training operator.

In this project we have worked together to transfer and adapt the "Italian" model to train professionals in the manufacturing process of shoes, but we must not forget that social, cultural and economic changes in a global economy, and more in one sector footwear, it is necessary to develop personal and social skills. As a result, more and more companies look not only purely technical skills in potential employees (especially those with limited experience), but also check their personal and social skills.

2. METHODOLOGY OF PROJECT APPSHOE

Practical work and production are the mainstays of the Italian model Calzatureiro Polytechnic. Training students consists of the production of goods and provision of services to real customers and, therefore, must learn to respect deadlines and quality levels required by the market. In addition, the key to creating professionals who can cope, act and assume their responsibilities properly in their field of work lies in the development of social and personal skills, where the work of teachers and the training institution is essential.

Here is a list where you can synthesize the values on which this is based formative experience shows:

- 1. The key features of this training model are practical work and production.
- 2. Learning takes place in an environment where learning by doing. The goal is the personal, social and professional development of students.
- 3. Theoretical training is integrated into the practical work and production.
- 4. Students are linked to a company as a trainer-tutor.
- 5. Training programs are offered with professional quality and diversity that reflect the reality of the labor market.
- 6. They are offered to students training in thematic areas of the sector.
- 7. Participants will engage in paid internships in companies or not, prior to possible job placement step.
- 8. Skills development will be reflected on the certificate attesting to their training, allowing you to more easily enter the labor market.

Learning through work and production model













During the training process, students must gain experience and learn to participate in all processes involved in the work. The work, in its entirety, can be divided into four stages of the process, in which the student must acquire competence. These are:

- decision-making.
- planning.
- the execution.
- appreciation.

Work on any product / task must be organized so that the student is integrated, to improve their chances of employment. Through practical work in workshops and businesses, students automatically experience a connection between the work on a product and the learning process. This connection between the actual performance or action and the learning process is vital for the student. It is very important that they see that learning not only takes the form of a mental process, but can also be developed through the work process, making students aware that to be competent in a trade need to practice.

In addition, the fact that through the practice is also making a profession is valuable for the development of students. The trainer is the person in charge of the whole training process, for which it must establish strong linkages and communication structure with company tutors so that students can receive instructions, help and guidance both trainer, peers and tutor assigned to the company. All training programs have a variety of products with their respective assignments that require different levels of experience.

The different levels in the module enables the development of synergies, as it is part of a practical training course will be tested in production models in business practices.

Theoretical learning in practical work

Theoretical learning and instruction are integrated as much as possible in the practical work of the workshops and production. The modules raised, the theory is understood as the intellectual knowledge of a subject (profession). The theory and practice are interrelated to the extent that one can not exist without the other.

In the workshops, trainers include theoretical aspects with practical work, in order to explain or explore other options or solutions to a problem, or serve as inspiration for other subjects. For most students, the isolated theory of practical problems meaningless. It is in workshops where students realize the importance of theory to solve practical problems time. The classroom teaching focuses on practical problems in the workshop.Facilities classrooms should be organized so that it is possible to combine constantly practical exercises with some theory.

For each profession described is assigned a set of specific learning activities detailed. However, trainers must also prepare a set of common activities and carry them out along the training, which will include:

- daily and synthesis meetings with all students to organize the day's activities and to solve common problems and highlight the minimum objectives achieved.
- Evaluation of a minute: with open or closed questions, the trainer questions about motivation, acquired knowledge, doubt, future training, etc. It is essential that students feel that their responses are taken into account.
- Instructions trainers should be minimal so that students can experiment freely. However, they must be fully available. Apart from the normal supervision, students are encouraged to proactively seek further instructions if necessary, take the trainer opportunity to monitor progress more proximally.











• When the task is finished, the trainer and the student will meet to discuss the development of the task and the results obtained. and determine next steps

Here are some options that correspond to this type of training: discussions, fieldwork, practical activities, lectures, lessons, practical worksles, presentations, projects, exchange of papers, seminars / workshops, tutorials, among others.

The role of the trainer

Trainers are responsible for the training. You do not need training in education to be a teacher in these programs, as defined skills so that trainers are professionals in their field works, I have a related craft with the professional field before being trainers this training model.

It is important that students know that trainers are professionals and workers with high skills who spend their time trying to occupationally train all students in the workshop.

The close professional and personal relationships that form between the trainer and students make the workshops only places where you learn and develop skills at the same time. The ties between the trainer and the student are often essential for permanence in education and professional development, personal and social development of participants. As noted in several projects and studies, the close relationship between the trainer and the student is one of the main differences in the school systems of those from students. Trainers in the workshops represent a model and an important support for students to learn and train as a skilled worker and as a person.

Be forming in turn contributes to social balance. The trainer must find the pedagogical tools and to instruct the appropriate tasks for each person. Not only when it comes to vocational training-oriented employment, but also social and personal training, the trainer must use their personal skills in addition to the professionals. Sincerity and patience are important virtues for forming such training programs.

Individual trainer is free (within the limits of the module, it will always be under the protection of self regulated system of training for Spanish employment) to define methods, provided they go according to the workshop and students.

3. Professional skills development

Shoemaking is an intense labor activity that encompasses more than 200 processes and a wide variety of materials and components: in most factories production flow is organized around conveyor belts that carry pairs of shoes a operation to another. Most operations have to be performed by a worker, often with the support of a machine. The workers' activities range from very simple operations, such as driving a shoe and place it on a machine to more complicated activities such as aparar or ride, in which very specific manual skills are required. The installation of the machines often borne by workers and are also asked to perform actions such as clean, maintain and tune the tools used.

The project focuses on AppShoe workers footwear production plant. Therefore, the design and engineering of the shoes are not covered by this training. Some training will go to explain other aspects of the process of the supply chain, such as the manufacture of materials and components or logistics, but participants will have to perform only the operations of the production plant, which should focus on maximum productivity, and must ensure consistency throughout the pairs produced, besides being extremely careful and accurate in the organization of materials and tools.













In a shoe factory, the production process is usually divided into three main departments: cutting, preparation and Aparado, where shoes are transported from the work area mounted to finishing and final packaging. Sometimes finishing operations are not connected and mounted depending on their complexity and organization of internal / external logistics. It is very common for workers to move from one department to another; usually they specialize in assembly operations performed in a single department. In each department there are different activities, some are simpler and more complex and decisive.

3.1. Professional skills in the footwear industry.

For the purposes of the project, we have identified five jobs or professional occupations. These trades were selected based on analysis of actual training needs of the workforce in enterprises and future industry trends. The investigation found jobs in the sector would be most sought after in the future at a technical level.

Phases of production	Input	Content of the production process	Output	professional occupation
DESIGN PATTERN	 Design: information on materials, colors and fashion trends Pattern: design of the final model 	Design of the final model to be manufactured and definition of performance criteria for manufacturing and scaling by adjusting their patterns.	 -Design: paper design of the final product - Pattern: base pattern for the final model 	Designer patronista
CHOPPED UP	Raw materials (leather, textiles), patterns and dies	Conditioning, cut and classification of skin, synthetic, textile linings, interior parts and other components of the skin of the upper and the lining.	cut skins	Cutter
Aparado	Cuts and pieces	Preparation of skins and assembly of the various elements of the final product (exterior parts, elastic, bellows, perpuntes ornaments, pleating, ornaments, etc.) by sewing.	Cortes and Aparados	Sideboard
MOUNTED	Uppers and pieces	Preparation and assembly of the soles and the rest of the components of the final product.	Final product	Fitter
FINISH	Final product	Finishing, cleaning, repair, final and packaging of the assembled product supervision.	Final product packaging, labeling and classified	Finisher

Then we enter and to itemize the processes and content of each stage of the production process, to help understand more about professional occupations defined in this project.

Shoe manufacturing process is a typical batch. The process is a system that, although produced on request and according to the quantity demanded of each model by customers, planned and divide the production as "tasks".











Given the type of products we manufacture the footwear sector jute, the main product shoes for women with highly differentiated components and mainly for the summer season, with alternating short and long series, requires the company to have a high craftwork content.

Operational processes currently performed in the footwear sector jute, are carried out as indicated in the following value chain (see attached Figure):



To make a first approximation of the global nature of the production process shoemaking, the following scheme is presented. Its preparation we applied the input-output model, that is, it is considered intermediate in and out of each stage of the production process.

Production phases shoemaking jute.

a) Phase design and pattern

The initial phase of the production process shoemaking involves three processes known design, patterning and scaling.

In the design process proceeds to the development of a product design to manufacture integrating all relevant information available (materials, fashion trends, decorations, etc.). Although designs on paper is still made using techniques freehand drawing, currently it is introduced widely computer aided through commercial digital design tools such as Corell Draw, Adobe Illustrator, Photoshop and other specific software design for the footwear industry of digital design in 2D and 3D.

The patterning process consists of performing the basic pattern to guide the process of manufacturing the product from the previously developed design.

Finally in the process of scaling the different sizes of the base pattern is obtained from the scales defined using one of the following modes scaling: Manual (for which a manual pantograph shears, the grinding machine is usually used edges patterns and machine skirting patterns), automatic (in which a scalar machine and a digitizer panel are used) or computer aided by CAD systems 2D and 3D. The patterns are passed directly by computer to the cutting process, and prepare the corresponding notes work as model or batch.

b) Phase cut

The essential contents of the phase conditioning are cut, cut and classification of raw materials and parts used for the manufacture of the final product; grouping the parts (cuts and linings) by numbers;











marking heels and furs and textiles; and figurative (stamping the number and the manufacturer's mark).

Cut patterns vary the degree of mechanization phase: hand cut and machine cut.

Some of the machines most commonly used in this phase of the production process are slicer electrohydraulic skin, the double punch, the electrohydraulic punching automatic rotary arm and movable table machine reground dies, slicer strip skin, automatic presses, cutting machine computer controlled.

From the patterns in plant raw materials mainly skins are cut by an automated plotter by knives for the best economic use of this cutting technology to minimize losses, with skin the raw material of higher cost for the company.

c) Phase Aparado (Sewing)

At this stage we proceed to sew the materials previously cut and add certain auxiliary elements (templates, elastic, buffers, etc.). This phase comprises the puzzle pieces resulting from the cutting, sewing them together with thoroughness and lining, producing festoons, punching, reducing edges, etc., whose aim is ready the shoe-mounted machining

Phase Aparado or sewing holds a high complexity due at least two reasons: it is the most difficult support be subjected to a machining process (as a result of which also requires a greater level of skills of workers) and it is composed of several different processes.

First in phase Aparado proceeds to the preparation of cuts and the pieces sewn to facilitate later. For this, the edges of the pieces of the upper and the shoe lining using various types of lowered which vary destination have different parts of the pieces to be cut (lowered from, lowered for hemming and recessed for mounting) are lowered. In cases where the lowered parts need to be more pronounced and uniform, proceed to the divided parts can also take different forms (shaped cuts, oblique split, partial divisions shovels, etc.).

After it is subjected to treatment for the pieces to give them greater strength and improve their appearance in the bending or hemming. folding and bending hollow splicing: in enterprises shoemaking two modes of bending which can be performed by hand or machine usually used. The machine usually employed in the folding process is the bending machine latex or thermoplastic.

The following process is chopped, wherein either for ornamental purposes or demands shoe model itself a series of perforations are made in the skin. Among the types of chopped chopped emphasize individual (single needle), multiple chopped (multiple needle), chopped ornamental belt chopped and chopped in Kiowa. In this process Aparado mechanization is practically nonexistent and companies usually employ only a mincer running and very simple technology. It should be mentioned however that some companies (still few) have begun to try to ignore this part of the production process by replacing the die,

Then in phase Aparado we proceed to the assembly of the various pieces and performing various tasks preparation mounted.

Finally, it should indicate the type of utensils and (mostly simple) machines are often used at this stage of the production process; various types of needles (rounded tip, tip Lr, spear, pearl, triangular, diamond, etc.), flat sewing machine, sewing machine column machine for cutting skins, put machine edging machine for decorative seams, sewing zigzag machine scratch seams, leveling machine stitching boots, tinting machine edges, machine set eyelets machine link cuts machine line plants applicating machine reinforcement back seams, sewing machine side to the blade or belt loops and the machine for repair work.













d) Phase-machining mounted

At this stage of manual manufacturing process with the latest technologies combined. In the phasemachining mounted they are prepared, assembled and finished products. The production system at this stage is semi-automated processes intercalated fully mechanized front manual processes.

In the mounted phase can be distinguished three distinct processes: the preparation for assembly of parts, the assembly of the end pieces and the finished product.

In the preparation process proceeds to die-cutting machine of the sole, the lining of heels (consisting gluing heels and envelopes, trimming of excess, and application in front of the heel) and the finished the sole.

The finished sole is effected through its matched, carding and beveled; through the matched machine is divided or equals the thickness of leather. Afterwards the sole is equal to the machine, and carding soles deflower absorption tail from the sole possible. Finally with marking machines chamfering and chamfering it is carried out a new lowered on the contour and the part of the sole on which will later mounted.

In addition to these machines, in the preparation of the sole to the mounted next machinery typically used: machine lower buttresses, heavy machine for cutting belts and welts, automatic press for compressing heels machine empty heels clipper mouth tops soles and heels carder the heel seat.

<u>Empalmillado and mounted: tine assembly, heel and sides.</u>On the form to which stapled plant mounted, by using a pneumatic machine cutting to form the tip thereof is fixed, in a process in which a set of retractable clamps encircles material cutting the contour of the mold, fixing it by using polyester hot melt adhesive.

Then we proceed to the mounted side (shanks) and heel, careful notching the material to the last and that there are no folds or bags in the shape of the shoe. This process is performed by using a second pneumatic operation machine which proceeds to fix the material to the cutting template assembled using hot melt adhesive polyamide and a drive system of the cut on the plant.

The process of assembling the parts for the manufacture of the final product contains a certain complexity due to the variety of tasks to develop it and qualifications that require some of these activities. coupling the edge of the sole to the last, the predesvirado or cut ridge of the sole and gluing of the sole: first prefabricated in which carried out is effected. The predesvirado can be performed with a simple machine or an electronic microprocessor with built.

Thereafter we proceed to nailing and hovered plants to which the plant is attached to the mold through the nailing machine and subsequently the excess plants are cut. Once done begins embastado: after trimming and lower the stiffener is positioned between the liner and the cut bead for gluing so that both the abutment and the stop reinforce the heel, toe and the shoe upper. With the die casting machine heels ends cut to shape to place on the form, liquids from embastado dried and glued pieces together. Then it proceeds to gluing cuts (with machine) and plant (hand) and the reactivation of the plant and cutting, placing them near a heat source, so they can be glued.

Then we proceed to centering the cut on the form and mounted tips (and a part of the waist), task performed with the machine centering tips (probably the enclosing more complex management of all employed the production process) when mounted chosen for the shoe is mounted Blake or Halley mounted. This machine can be further incorporated microprocessor control that facilitates the task of high qualification mounted tips.

Finally the shanks and heels are mounted; the shanks mounted supports two modes, either by gluing or by nailing; in both cases it can be done by hand or machine. The heels mounted machine can also be performed both by nailing and gluing through.













In the finishing process the multiple activities takes place in order to end the phase of the assembled shoe. First the shoe is introduced into the oven drying (drying). It notes that ovens vary form and function; and among the first companies often use the closet furnace, belt furnace, furnace compartments and the vacuum oven. According to the most used are operating the furnace operating with resistors, the resistors oven with vaporizing water, furnaces incorporating infrared lamps and furnaces vacuum.

Then the vaporized occurs, seated and challenged; the common aim of seated is vaporised and remove any wrinkles or bag existing in the shoe; with mounted machine ensures rebut after having hammered. Thereafter sanding area mounted and the part of the sole is made to strike; it is highly automated operation (some machines incorporate microprocessors), despite the precision and delicacy required its realization, which aims to facilitate the absorption of glue.

After tapping the sole or midsole, placed the siege or welt on the edge of the sole and midsole cut and desvirada, it proceeds to the placement of the heel. To perform the placement of the heel should proceed: the settlement machine area where gauge placed heel (box marked heel), a highly automated operation; Fixing machine heel; and the pricking of the tab between the heel and heel. Subsequently caps are placed with clavetear machine covers and soles bonding starts (bonding and mounted prior soles usually performed to machine); subsequently mounted to the sole is applied with existing machines (machine press gluing or by hydraulic pressure, the electropneumatic machine or the machine cover).

Once reactivated the sole to allow bonding (need to reactivate the glue of the sole by means of reactivating) proceeds to the implementation of the split, that is, to cut the piece of sole where the shoe will be sewn using slicer or lifting cleft and cleft closure (using another machine).

Finally the following operations occur:

- *Trimmed profile*; cut, by hand or machine, the sole part protruding heel.
- *I desvirado*; trimmed of excess desvirar the machine to facilitate subsequent sanding shoe.
- *Lujado or edge polishing and soles*; which it is usually done both manually and mechanically finished finished.
- Cooling and stabilizing the soles;
- *Timbrado;* placing the number of manufactured shoes and brand of the manufacturer.
- *Out of the mold*; the shoe out of the mold machine automatically either with pneumatic or hydraulic machine.
- *Nailing heel outside the mold*; to increase safety heel digs out of the mold using the nailing machine.

e) Phase Finishing

The objective in the final phase of the production process shoemaking is to improve the presentation of the shoe; to do this (cleaning and repair) it is reviewed and monitored before being packaged.

First the excess liner and drafts that may lead incorporated shoe model finally manufactured are cut; then glued (with the gluing machine templates) and templates placed inside the shoe.

The following activity to develop at this stage of the process is to remove any wrinkle linings and holes to which it is then ironing machine using the forming hollow and electric spoon.

Then the shoe eliminating any stain (ink, adhesives, etc.) and any damage that may have to accumulate throughout the manufacturing process are repaired is cleaned.

Subsequently the ornaments are placed corresponding to the model and the shoe polishes automatically by forced extraction cabin or cabin by water curtain. Finally shoes twin pair are













introduced into the boxes and referenced them picking the model, the numbering of the pair, color, etc.

As we have seen, the production process developed by the shoe industry is far from simple; for that reason in the next shot we realize graphically summarily production process shoemaking just described in detail.

f) Quality control

At different stages of the process, the relevant quality controls are performed to check that meet design specifications. Currently, the company uses as a strategy for quality detection. In this control scheme, production only handles the number of shoes to be manufactured and the end, in the last stage of production, an operator responsible for inspection is responsible for approving or subjecting the product to correction.

This detection strategy is inefficient because in the case of finding a defective product, it will have to reprocess or in the worst case must be dismissed. As for the operation, the controls performed taking place in the final station of the line. This sector, in addition to packaging the final product, is responsible for conducting quality control of the finished product. The first operator performs a visual inspection to easily recognize manufacturing defects, such excess adhesive not correspond waist between the sole and the shoe itself, or misaligned glued sole. Finally, evidence has been good adhesion to the sole.

g) Packaging. Warehousing and distribution

Upon completion of production tasks, the shoes are packaged and labeled in boxes. Footwear packs are grouped by customers. Finally packaged products are stored in loading dock waiting to be sent to large distribution chains or to retailers. Logistics operations are usually subcontracted to specialized operators. As it indicated the company also has online store, as a source of distribution of its products.

At the end of the document in <u>Annex I</u>, you can be found a manual prepared by the Calzatureiro Polytechnic intended as a useful tool for both teacher and pupils can deepen the knowledge of the footwear industry, through extensive description of each one of the phases, steps and processes carried out in the shoe industry, that illustrate and helps teachers and trainers know when deeper the footwear industry.

3.2. Specific professional occupations shoemaking

Once characterized the production process, which has served us as a basic reference for the definition of professional occupations in the sector, it has proceeded to define the professional occupations of a specific nature that it can be developed.

patronista designer-cutter, dresser, specialist chain of manufacturing and finishing of footwear: the following is considered professional occupations.

Specific professional occupation	Phases of production
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Designer	Stage design and pattern	
patronista		
Cutter	Phase cut	
Sideboard	Phase Aparado	
Specialist production line	Mounted phase	
Finishing footwear	Finishing phase	

Next we briefly describe each of them.

a) Designer - Footwear patronista

Creator of the role of the samples, product ranges and models of shoes designed for each season taking into consideration the demands of customers (sometimes the manufacturer) and available information (raw materials, fashion trends in colors, ornaments, shoe type, etc., market research, etc.).

Executing and guiding in practice the manufacturing process of footwear models from the initial designs; It is therefore the professional who has a better overview of the production process. Its main task is to obtain patterns, the definition of the integral parts of the final product and the development of technical specifications to organize the manufacture of models designed.

It should be noted experts specific to this industry, the characteristics of this occupation functions are being assumed by both the technical development of the CAD system, for the functional evolution of the designer. Thus they consider that the trend towards short and medium term this figure in the production process, is the gradually disappearing. It is therefore to be perceived from within the footwear industry as an occupation in decline.

b) cutter footwear

Responsible for cutting the raw material, treat and prepare it for the appliance make by using various means of specific work to cut, following the general criteria to optimize the use of resources (human and equipment) within reach.

c) footwear sideboard

Assembly of the different cut pieces through manual or machine sewn, once the preparation of those pieces for Aparado (folded, glued, incorporating ornaments, etc.).

d) Specialist manufacturing chain; mounter - finisher

Responsible for preparing parts for assembled trim cut the shoe last, fixing the floor components that cut and finished end product.

As the finisher is responsible for the appropriate final presentation of the product, taking care of your reviewed, cleaning, repair, labeling and packaging.

For more details on the competencies required for each job it is available (Annex skills). Although raised formations are raised training modules identified in the AppShoe project, if conducted separately are part of the same manufacturing process of a product: a pair of shoes.













It is very important to emphasize the importance of teamwork, not only within the same department / work area, but throughout the production line. The earlier error quality is detected along said line, the lower its consequences. The elaborations or withdrawal of a product is the result of ineffective communication among workers. Currently, factories are quite involved in quality control. During production, quality controls are performed in each department and usually at the end of each operation, but the final check before packaging is critical to ensure there are no defects in the shoes to be delivered to customers. Part of the activities can be outsourced to external factories, which makes the organization process more complex. Outsourcing can occur for many reasons: cost reduction, need for specific skills or equipment, flexibility and balance workload, etc. When a shoe leaves or enters a factory, the quality control activities become essential.

As in any production line, the bottleneck is the slowest process step. It is important to have workers who can perform different functions to deal with emergencies. In the shoe factories, raw high level of productivity, but does not have to entail a lack of quality. Stress management, adaptability and be able to constantly monitor the entire process to be part of the social skills that today are looking for factories.

3.3. Skills and abilities

Thejobs, they will be defined easily, although it is recommended analyzing each of the modules that make up the training program where these aspects are defined in depth.

Sideboard

Description: Perform operations for preparation of the cut pieces to be subsequently aparadas. Operations pre-Aparado include: split, lowered, and hemming the cut reinforcement following the instructions in the data sheet. You can also include the gluing process of the pieces that will be aparadas.

To assemble the pieces have been cut and prepared, leather and other materials, together with other accessories to add the cut (and liner) end, different operations can be performed manually or by using machines.

Cutter and cutting machine operator

Description: Cut the different parts of model shoe according to the technical information, using appropriate equipment and applying appropriate techniques, according to the standards of quality and productivity.

This activity includes the following tasks:

- Analyze materials (leather, synthetics, textiles, reinforcements) by use and the quality requirements;
- manually cut the first prototypes;
- manually cut the most valuable raw materials;
- Perform cutting machines and automatic cutting systems for production.

Mounter - finisher

Description: Perform all pre-mounted, namely placement operations Buttress and the stop condition using the equipment and the proper tools. Performing all the preparation of components (cut and sole) for gluing / joining parts (by adhesion technologies) and achieve permanent bonding of the shoe sole in response to the order and standards of quality and productivity.











- Perform all operations mounted using technologies relevant accession, ie install the front, sides and back of the shoe with the help of hand tools or proper equipment according to the custom production and standards quality and productivity.
- Perform all finishing operations shoe, according to the order of production and quality standards and productivity. If applicable, all packaging operations will also be included.





4. SOCIAL SKILLS DEVELOPMENT

AppShoe methodological innovation of the project lies in social skills. Ongoing projects and quality improvement based on best industry practices where each day lends greater attention not only technical skills but also social by workers.

As in all sectors, and more from the perspective of globalization, there have been several changes in the footwear industry with respect to production plants. Have introduced greater automation of processes incorporating increasingly sophisticated equipment, new materials have been used that have affected the process (for example, synthetic materials for soles, new adhesives, etc.). However, the technical skills needed in the manufacture of footwear have remained virtually unchanged over the last 20 years.

The primary concern, therefore, is the integration of that specific method in worker training shoe. For this reason, we have included a specific set of tools for training methodology.

Framework of social skills

From AppShoe have addressed several social skills, ranging from the most specific (time management) to more general (ability to learn). During the pilot project undertaken in the sessions, teachers and tutors enterprises should pay attention to these skills and how they develop in each student. The classification serves, therefore, as a guide for instructors and teachers in order to better evaluate the student's level and to identify ways to improve each specific social skills. Each category contains a short, descriptive definition. In addition, these types of skills are often connected, that is, when it develops also develops other.

Social skills are classified from the most general to the most specific and not based on importance:

- Learning capacity
- Constancy
- Responsibility
- teamwork and cooperation
- Concentration and overview of the task
- understanding and respect for the rules
- Time management









5. DOCUMENTATION AND EVALUATION

Appshoe is designed to implement part of the working methods of the Italian model of training in the footwear sector, at least those that can be applied in the footwear industry in the Region of Murcia. However, the inspirational values of the Italian model and procedures and documentation used, may be ideal tools to structure the training project, and to develop professional and social skills of students.

Along with those responsible for education policy and training for employment in the Region of Murcia they have been raised apart from all models of documentation and evaluation regulated by each raised educational system, which is mandatory to proceed with the evaluation of the process training of students, the following documents as material monitoring during pilot training:

- Certificate of competence
- Evaluation

The option of using these materials always has been left hand trainer. Examples of the material used, which must be adapted to the contents of each driver module are offered.

Certificate of competence: learning outcomes and ECVET

The use of European standards as European Qualifications Framework -EQF- is an interesting tool to integrate into training routes proposed by the AppShoe project to the objectives of learning more understandable for all, and frame a common European reference between all countries and stakeholders, as well as providing the foundation for future recognition in the different systems of vocational education in Europe.

A Learning Outcome is defined as a statement of what the student knows, understands and is able to do after the learning process. The EQF emphasizes learning outcomes against other characteristics such as duration, activities, etc. and classifies them into three categories: knowledge, skills and competencies.

This perspective suggests that qualifications - in different combinations - cover various types of learning outcomes between theoretical knowledge included, practical and technical skills, and social competences where the ability to work with others will be key. In the context of the project and in practice describes what the student will be able to do if you complete the training successfully.

The description of learning outcomes following this methodology would be as follows:

Knowledge: It refers to the result of the assimilation of information through learning. Knowledge is the basis of facts, principles, theories and practices related to a field of work or study. In the context of EQF, knowledge is described as theoretical and / or factual, and may have different levels: concepts, basic knowledge and insight

<u>Abilities</u>: Refers to the ability to implement the knowledge and experience to use in performing tasks and troubleshooting. In the context of EQF, skills are described as cognitive (integrating the use of logical, intuitive and creative thinking) or practical (integrating manual dexterity and the use of methods, materials, tools and instruments).

<u>competences</u>: Concerning the proven ability to use knowledge, skills and social, personal and / or methodological abilities, in work or academic and professional and personal development. In the context of the European Qualifications Framework, skills are described in terms of responsibility and autonomy.

Based on the EQF and the European Credit System for Vocational Education and Training (ECVET), it has designed the structure of training for each job to get the ECVET points depending on the importance and complexity of the matter and skills developed with the criterion of 30 hours each ECVET point.













Evaluation

Evaluation is an essential part of the learning process. Determines whether the learning objectives have been met if the student knows and is able to perform the functions provided at the end of their studies. It is a measure of student progress and a way to engage them in the learning process.

In this project, the assessment is designed so that students understand their progress toward learning goals and act accordingly. Therefore, evaluation should be a continuous process for the student to obtain a true recognition of their efforts and expertise, and must include a critical assessment by the trainer.

For each job, procedures and criteria based on the acquisition of learning outcomes should be defined in accordance with the powers provided

The evaluation will be divided into two parts:

- Technical content: on the tasks carried out in each training module.
- social and daily living skills (punctuality, perseverance, teamwork, initiative, problem-solving capacity, etc.)

As for the evaluation mechanisms: The trainers used a table of skills and records of punctuality, perseverance, quality of presentations, reports and portfolios.

In the case of formal training (vocational or job training) all evaluation tools and its explanation and instructions are available on the trainer who will be given at the beginning of each training module manual.