

# EDUCATING AND TRAINING CRAFT TEXTILE PRODUCERS

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## **ABSTRACT**

The paper addresses a distance learning/e-learning pilot study, focusing on craft-textile producers that are lacking education in design, informatics, marketing or management, due to their residential location and life-style constraints. Both the research work and the case study targeted to develop and provide the textile producers with a friendly and positive educational and training methodology. One of the primary concepts of the delivery of distance education was to offer learning possibilities to all, anytime and anywhere, and solutions to the unemployment that is still rife in many Mediterranean countries. The research team focused on directions where design operates as a leading discipline of the innovation processes and entrepreneurship: the development of new high quality textiles/textile products, and the adaptation of new technologies. The development of entrepreneurship, as well as of new skills and designs in the textile business, in order to stay or become competitive, was considered in the context of the immense pressure posed upon small firms by external production and the expansion of high technology applications. A special educational module was developed engaging new technology. It was experimentally applied to selected participating textile producers, offering fundamental design education and basic computer usage. Distance learning delivering was included providing opportunities to textile producers and workshops in remote rural areas to obtain access to training and develop the necessary skills to become competitive. Examples are offered from the adapted educational programme.

*Keywords: Craft -textile producers, Design education, Distance learning, E-learning*

## 1 INTRODUCTION

Inspiration and starting point of the present work were the numerous craft-textile production units that faced serious financial problems since the dawn of 21st century. The rapid changes and increased complexity of today's world have presented new challenges and put new demands on the textile production system. The advancement of technology, the economic imperatives and globalisation have brought about dramatic transformations in the organization of production, its methods and products. In confronting these challenges it is necessary to consider the complexity of effective training and the multitude of problems that must be addressed.

The project was undertaken and completed by the research team of the Technological Educational Institute (TEI) of Athens, Greece, with the direct involvement of University professors, craft-textile producers/cooperatives, local tourism business and undergraduate design students within the scope of their degree projects and practical training. The project started within the actions of the Leonardo Da Vinci program, a Community initiative that promotes the adoption of new strategies in the development of initial and continues vocational training. It was aiming to support handicraft cooperatives, enterprises and small businesses in the craft sector to adapt to the new fast changing technology and become more competitive in the single European market. It was completed as a TEI research activity with the following actions: research on local (Greek) craft-textile production; research on local tourism business related to craft-textiles; research on selected production units and tourism destinations around the North-East Mediterranean littoral. The project included areas of Greece, Cyprus, Bulgaria and South Ukraine.

The working actions were divided and fulfilled as follows:

- Three years of preliminary discussions/decisions within the actions of the Leonardo Da Vinci program, a proposed framework of tasks and data selection.
- Two years of investigation into the workings of the local craft-textile production industry, plus one year on craft workers around the North-Eastern Mediterranean littoral. The participating students undertook research at pilot regions of the area that produce tourism craft-textiles and receive a large number of tourists. The research, assisted by selected data from regional and national craft and tourism business associations, was on craft-textile production, handicraft producers' reality, problems and needs, on local and regional tourism business and on the possibilities for textile production innovation.
- One year for the completion of the design methodology and the proposed educational module, with one additional year for the English translation.
- One year for local and one for European testing and dissemination of the module, in vivo, via the Web and within training seminars, tutored by the participating professors, offered free of charge to handicraft textile producers.

*The objectives* of the project were: to promote interdisciplinary intercultural research in textile production, designing, and education; to analyse textiles from an art/design point of view; to address textile design teaching/learning strategies; to facilitate a dialogue on the benefits and limitations of contemporary and information/communications technology in textiles education and production; to promote interactive craft-textile design research in the university environment; to render craft-textiles an area able to participate in the processes that develop local values and resources, opening new roles and opportunities to local people and economies; to explore the role of research methodologies that lead to textiles with cultural identity; to investigate the possibilities of innovative textile products that result from the combined research of culture and today's accelerating technology.

*The aims* of the project were: to provide vocational training through long-distance learning to businesses and employees in the craft-textiles sector and to members of handicraft cooperatives who live in remote areas; to create new opportunities, visions, skills, directions and media for people in the textile production; to support them adapt new technologies and become more competitive; to assist them penetrate the tourism market. The possibility of an information network that could assist them improve their efficiency at a national and global level and combat their isolation from the wider European market was also discussed.

*The actions* of the research team, in relation to the project, were: meetings to discuss and outline the main activities and conditions for introducing new tools and new strategies in textile education; a framework of tasks; cross-platform discussions and interactions on the pedagogical practices that promote effective learning/e-learning, and on the practices that assure the learners' satisfaction. The research team also looked for examples of best practices in long distance training.

The research team, within cross-platform discussions and interactions, identified the project data, the methodology to be adapted, and the final educational proposal.

## 2 THE DATA

Current and potential tourism-textile producers of the Northeast Mediterranean littoral are lacking skills in terms of design development, production organization, quality control, pricing, communication and new technologies. Many of them do not have any special education and only a minimal basic one. Often their rural location and their low educational level result in a low level of professionalism. Lack of know-how in the development of new products and designs, of innovation, of aesthetics, of art/design education, of new technological developments, and of the possibilities of reconciliation of the hand-made quality with the new technology, are problems of the local population around Mediterranean that is involved in textile craft production.

Traditional crafts represent a very valuable form of cultural expression, important not only for the developing countries, but also for many developed ones. They take their roots in age-old traditions, renewed by each generation. Craft-textile producers have been producing hand-made items with a unique aesthetic value for centuries that bears the history and the identity of their country and its people, which should never be lost for the sake of modernism, internationalism and the requirements of some tourists.

The project is facing the problems, seeking solutions via education and training, and through promoting both the home and cooperative craft industry and production. It also discusses the growing importance of knowledge sharing and the potential contribution that information and communications technologies could make to craft producers [1]. The most important deficiencies are in the areas of

design renovation, new technologies and management. The fundamental issue for the research team was to address methods and media that could assist the members of the local textile business to develop quality textile designs and products by adapting the new technologies, without the new products losing their cultural identity. Improvement of skills and creativity up to a certain level, through distance education and training, provided at home or at the workplace, was decided as the most realistic way for them to become gradually more competitive and thus survive. Long distance educational opportunities for people in the textiles tourism production, through the university environment was missing and the introduction of such opportunities were the uniqueness and the originality of the project. The research focused on directions where long distance education operates as a leading discipline of the innovation processes and entrepreneurship: the development of new high quality tourism textiles, and the adaptation of new technologies. The undertaken research proved that the lack of cultural definition and identity could have, in the long run, a negative effect not only on the development of innovative products, but mainly on the economy of the local craft companies. The project focused on improving the cultural significance of craft items with the use of new technology. Thus culture becomes an important marketing tool, since design is one of the basic components of marketing.

Craft production for the tourism business is particularly suited to sustainable development, with local materials and labour employed. Specific designs, forms and methods of production are also closely associated with specific regions. The regional design differentiations are illustrated on traditional products. Locally created products are worthy of promotion, since they serve a double purpose: to provide tourists with authentic cultural artefacts of the region and to support the local economic basis [2]. A database with information and links to design development was attached to the University web site, producing opportunities to increase participation among young people in tourism activities. Creativity was considered by emphasising imagination, motivation and experimentation. In support to the long distance training programme development the following data were collected and delineated in relation to the project.

## **2.1 The Craft-Textile Business**

Aristotle divided things into those that ‘exist by nature’ and those that are ‘artificial products’ [3]. From Aristotle we learn that a craftsman is the practitioner of a certain craftsmanship, which is actually what matter. On the other hand Plato credits a divine craftsman for the creation of the universe that is the product of designing [4]. In its broadest sense *craft* refers to the creation of original objects through an artist's disciplined manipulation of materials [5]. Craft also refers to products of artistic creations that require a high degree of tacit knowledge and involve manual labour [6]. Some crafts, like textiles, have been practiced for centuries, while others are modern inventions, or popularisations of crafts practiced in a very small geographic area.

Historically craft was identified with producing objects that were necessary to life. Throughout crafts long history, they have produced useful objects that outlived the men who made and used them, many of which have been considered later as fine art objects [7]. In antiquity all processes of making were hand-processes, thus everything made was a craft object [8]. With Renaissance comes the intellectual separation between craft and fine art that eventually was regarded as superior, according to Plato's idea of rural craftsmanship ‘the specialization into which the lower society has a specific job’ (Plato, 5<sup>th</sup> century BC). Industrial Revolution was the time of distinction between a craft object and the thing made by a machine, the industrial product [9]. The hippie years of 60s and early 70s were the crafts regeneration, showing a great increase in people producing crafts professionally. The final separation of craft from art and design is a Western culture phenomenon of the late 20<sup>th</sup> century [10].

The persistence of hand making as a method of manufacture is one of the most interesting aspects of visual culture of the twentieth century. In the context of manufacturing, we can define production as the entire pre-planned and applied processes and operations that transform materials into predetermined products. The development of these processes constitutes the production as practiced at the manufacturing units. Handicraft and industrial companies constitute the manufacturing industry [11]. At first, craft manufacturing was performed manually. The replacement of manual labour to a greater or lesser degree by mechanical methods resulted in the quantitative improvement of production, in many instances improving the quality while in others causing it to deteriorate. Today, because of global production practices, industries produce goods that are almost identical. On the

contrary, goods produced by specialist companies, primarily manually, may look alike but are not identical. They maintain their own aesthetic character and value, thus remaining unique.

The research showed that the craft companies of the project area have recently turned their attention to producing hand-made traditional artefacts, for their unique aesthetic value. The fundamental characteristic of a hand made article is its uniqueness, as opposed to the manufactured ones. Since no two hands can repeat identical motions, these items are not carbon copies. Therefore, in this sense a hand-made item can even be any product that is produced by electric-powered machines, which are guided directly by human hands. Good examples of mechanical/hand-made products are the hand-woven and hand-tufted rugs.

The textile craft business has become a medium of cultural transaction, via the increase of tourism, though it is suffering, in many instances, from lack of identity, due to the imitation or duplication of designs, lack of design quality and lack of production quality, very often due to the producer's low educational level. Craft-textiles have become a viable job in many parts of North-East Europe, contributing to the development of local tourism business. Artists are also exploring the artistic possibilities of applying rural crafts techniques to the making of their artworks, hoping for a place among the preferences of high-income tourists. Community centres of the area are running evening classes and workshops offering basic craft-textile skills in a short period of time, targeting to minimization of the local unemployment.

Like almost all other art forms, craft-textiles have become internationalised. The speed of communication has resulted to a visual, two-dimensional, out of scale transmission of anything new round the world in a very short space of time. Inexperienced craftspeople, in an effort to be 'modernized', interpret and transform these two-dimensional pictures into new three-dimensional forms with results that can be rarely fruitful and most of the times unfortunate.

## **2.2 Cultural Heritage and Textile Production**

The design of artefacts is an activity that has been carried out for centuries. Designing an artefact is a visual and conscious process, carried out by synthesizing visual, aesthetical and applied means, which can be expressed in physical objects, in forms and creations. It is also a subconscious process expressing the designers' inner world, marked by their identity. Social groups express their cultural values through their demands, ideologies and preferences, and their aesthetic values have been improved through the distribution of various man-made products, and via their positive or negative appreciation of them [12]. Industries are fully aware of that, and want to influence popular aesthetic values in order to flood the market with products, which are based on their selected standards. It is these very aesthetic standards, which are often used by the producers to manipulate consumer demands not only in ordinary products but also in modern art.

Culture and heritage have made a great contribution to arts and crafts development. The oldest forms of craft creations consisted of geometric figures such as circles, bands, straight and curved lines drawn in categorical regularity, according to a certain rhythm, conforming to the structure of the objects they adorned [13]. They formed the common Mediterranean design background, became the basis for intellectual and technical skills, and provided inspiration for sophisticated artefacts. A cultural artefact is a man-made object, which gives information about the culture of its creator and users. It may change over time in what it represents, how it appears and how and why it is used as the culture changes over time. It is actually the product of its epoch than of a single person. Local culture is the catalyst that enables the expression of designs in different fashions, even if the same fauna and flora have inspired them.

Craft design stands in intimate relationship with materials, purposes, forms and styles. In many instances, depending on the form of the objects, it is also influenced by the materials in use, the manner in which the natural objects are presented, the purposes for which an object is created, as well as by the nature and the culture of the different people involved at different times, reflecting the spirit of the times, the political or religious ideas of the people, and the effects of foreign cultures. The so formed cultural objects are the truthful expression and presentation of the character of the people of a certain area in a certain historic epoch. The evolution of an idea into a form has always been a challenge for any craft creator, unknown or a famous, exercising his/her imagination and reason. The form always emerges from many factors as a result of the original concept, though it is considerably modified during the process of creation. It expresses the artist's vision, culture and era, as far as this is possible, within the limitations of materials and techniques.

Reconsidering craft-textiles from a new viewpoint and with new media is a real design work, because during the process, the designer views things without preconception. It is also a human-centred approach, in the very broad meaning of the term, since arts, crafts and culture are fundamental parts of human nature. Of course if one is unfamiliar with the real culture, the attempt to recreate or unite it with industrial or handicraft products can destroy both the form and the designer intention. The revival of traditional craft culture doesn't mean mere imitation of old things. It can simply encompass new media/material in a traditional application or vice-versa. Old things need to be fully understood and a renewed appreciation of traditional culture should be gained. It is vital to develop cultural originality and distinctiveness in craft-textile production, and to design products, with or without technological means, that reflect the local cultural background, identity and originality. Education is a very important factor in forming cultural-consciousness and the increasing opportunities offered by multimedia and the Internet help to get closer to the values of tradition and cultural heritage. When this distinctiveness is reinterpreted in terms of form, image and symbolism, and is compounded into products, the local craft industries will be definitely strengthened.

### **2.3 Tourism Textile Production and Sales**

The coexistence of tourism and handicrafts vanishes in history with the textiles being a great travellers' attraction, since the Egyptian and Aegean era [14]. It is evident that travelling was quite limited at that time to few intellectuals with curiosity. Democritus, Herodotus, Plato, Aristotle, Ptolemy were some of the well-known travellers of the ancient world. It is a fact that via those travellers curiosity, fabulous hand made pottery and rare hand made textiles of the ancient world moved from country to country, inspiring local designers and craftsmen not only for the creation for new artefacts, but also of new forms of design and decoration. Thus diverse local cultures were transplanted from India and China to Egypt, Greece, Rome and Black Sea, and from the southern Mediterranean countries to northern European and Asian ones, inspiring local craft masterpieces, founding local heritages, cultivating national ones, contributing to global craft-design evolution.

The last two centuries travellers' attraction by local handicrafts has been more evident. The interest of foreign visitors in local traditional craft items - mainly textiles, is a phenomenon with increasing sequence not only for those of the exotic countries production, but also for all tourism places. A determining parameter for the 20<sup>th</sup> and 21<sup>st</sup> centuries is the lightweight of most textiles and textile by-products, making their transportation easy, especially with modern air-transport, becoming a modern medium of cultural data transaction among nations and people.

Tourism business is especially important for the local Mediterranean economies and a major source of income for the national ones. The target of craft tourism producers is principally the local tourism market (75%) and, to a lesser extent, local households (25%). The research team interviewed a sample of 1000 local and international tourists on their purchases at the selected pilot regions. Almost half of the respondents had bought clothes, of which T-shirts were 40% of all clothes purchased. Textiles and ceramics form an important part of the souvenir purchasing behaviour of many tourists (60%), with jewellers coming behind. A significant number of tourists buy more traditional, and definitely hand-made, items. The full spectrum of local tourism textiles includes all kinds of hand-made traditional carpets, textiles from natural fibbers, hand-woven and embroidered women's clothes and accessories, men's accessories, children's wear, home textiles and home accessories, with sales strongly related to the 'usefulness' of the purchase. Personal items, such as clothing and household objects cover 80% of the sales, while the decorative ones only 20%. Bags are also best sellers, as well as carpets, each having 13% and 7% share of the sales, respectively. Due to their weight only local or car-travelling tourists prefer carpets, metalwork, woodwork and ceramics. Jeweller is favoured by the high income ones.

Those most interested in textile and textile products are holiday tourists, local or foreign, differing greatly culturally and economically. This group strongly influences production by their purchases. Women are the best customers, over 60% of the purchasers. Youngsters prefer T-shirts (35%), bags (30%), cloths (25%), pareos (a kind of light robe worn over the swimsuit) and scarves (8%), and only 2% of their buys are decorative items. Older people usually buy lightweight items, such as tablecloths and linens (45%), handkerchiefs (20%), towels (15%), dolls - a textile by-product (15%), and only 5% carpets. High-income tourists prefer more sophisticated and exclusive hand made items (over 50%), mainly embroideries, carpets, silk products, traditional costumes and traditional dolls. T-shirts, bags and towels are, for their usefulness and portability, the main and often the only preferences of tourists

with a lower income or backpackers. A great share of these sales takes place during summer in big cities that receive a large number of tourists.

## **2.4 Tourism Textile Co-operatives**

A cooperative is a society with common activities and common economical aims among its members, pursuing their economical and life style improvement. It has a legal face, requires seven minimum voting members, general assembly and director. Their target is the improvement of the member's ability to produce, the maximization of sales, the minimization of product cost, the optimisation of work conditions. The cooperative offers an economical, social and organizational framing that includes common purchase of raw materials, common sales of craft-products, common structure of modern production units and common presentation of the products. Craft cooperatives, having less than 15 employees each - mainly women, are the main producers of tourism craft items around North-Eastern Mediterranean, thus having particular significance to the local economies.

Handicrafts cooperatives retain a small, but very important niche in the global market, because they are linked to the retention of regional and local traditions, the provision of jobs, especially for women in rural and remote areas, and the preservation of a level of quality and exclusivity, which cannot be found in manufactured items. Securing jobs in the handicrafts sector has, therefore, a social and cultural significance, besides its economic one for rural/remote areas, especially for Eastern European countries, where it is a possible way to save women from becoming economic refugees.

The craft-textile producers of the research area fall basically into two groups: professional producers who earn their living from sales, and those who produce textiles along-side another occupation. The first group of producers is open to new developments, has a good regional distribution network, collaborates regularly with tourism shops, has some kind of education and training, basic knowledge and use of new technology, and high level of interest in seeing and learning modern techniques and design improvements. Few handicraft cooperatives are exporting to foreign countries and collaborate with wholesalers. The second group draws its members mainly from among women, and textile production is a source of additional income for many of them. The basic outlet of these handicraft producers is the local market - local people and foreign visitors, despite the fact that foreign markets appear to be interested in handicraft textiles. Their ability to penetrate new markets is non-existent with complete lack of knowledge concerning the means that can be used in order to approach the consumers. Some of them collaborate with tourism retail shops but not on a regular basis. In many cases, their products are sold right outside their own homes, which also operate as exhibition stores. Their range of production includes all kinds of hand-made traditional textiles but sales are strongly related to useful ones. Techniques and equipment are largely handed down through generations. Unfortunately designs, which have been handed down from mother to daughter and reflect local history, religion and customs, have been often debased during the last few decades, due to uncontrolled production. Globalisation is an extremely broad and complex phenomenon that undoubtedly represents a threat to crafts production of losing identity and diversity. Deep knowledge of local tradition and vision could be strong supports against defeatism.

The governments of the area wish to promote craft business and a simple way is women and unemployed youngsters work-placement in handicraft-textile cooperatives that are composed and run by them and are targeting to the local tourism business. Basic constraints of this simplified solution are the training and educational differences/deficiencies among them, and their often remote/rural locations. Another important issue is the variety of operational modes that characterize the handicraft tourism industry and the training requirements involved. External support from experts could be a prompt and effective way to remedy these deficiencies, but appears to be in general financially prohibitive. The undertaken research proved that improvement of skills up to a certain level, especially through distance education and training, provided at home or at the workplace, is the most realistic way for local textile handicrafts to become more competitive.

## **2.5 Textile Producers Problem Identification**

The research team in order to obtain an accurate image of the craft producers problems, needs and necessities, asked selected textile producers of the research areas to complete a self evaluation questionnaire. The addressed questions were on their general and art/design education, type of production, product inspirations/prototypes, quantity of production, target groups of purchasers, type

of quality control - if any, their skill needs, problems and required solutions. The questionnaires were locally and regionally applied, organized under the following headings and sections:

*The identification of craft-textile producers:* who are these producers; what type of production; what is their size and organizational profile; who are the persons involved in tourism production; where is the production unit based; who does supply them; to whom do they sell – tourism business, shops or individual tourists; where do they distribute – locally, nationally, or globally.

*The type of products the company produces:* what do they produce; how do they produce these products; how are the products designed; how specialized or diverse is the product range; how are the products developed for the production stage; how is quality controlled within their production system; what types of production systems are they using.

The majority of the interviewed textile producers are specialized in the traditional character of products, working with traditional designs and means of production. They usually copy designs from museum exhibits, but they want to be trained in design and to collaborate with external designers - actually some of them had attended private or municipal seminars on design [15]. Most of them are limited to the production of heavy, large sized traditional textiles with high cost. They have realized that sales of their products depend on diversification in two directions: the development of new products and designs, and the adaptation of new technologies in order to meet the needs of nowadays tourists. Although it is very important to keep the traditional character, it is also important to re-orientate their production towards new products and designs, which can be produced effectively with a low cost. It is a question of product diversification and the development of a range of products that can be addressed to different target groups, locals and foreigners - specialists, exclusive tourists and everyday users.

Many are lacking skills in terms of design development, production for the market, pricing and communication. The fields of management, production, and marketing, are correlated and require expert assistance in most areas. Quality control is a major issue, too. The rational operation of quality control demands the existence of certain members with such responsibility. The aforementioned members need to have the necessary awareness for maintaining the quality control standards, and those responsible for quality control have to be trained in order to make this process more effective.

The lack of essential skills regarding design, management and marketing proved to be a common feature in all North-East Mediterranean littoral handicrafts. The ‘specialist’ skills that are necessary for the effective operation of the craft business of the area, are the following: development of new products, designs and methods of quality control; innovation in design; aesthetics and knowledge of the true tradition and heritage; basic awareness of new technology, of marketing, of production organization, of management. It is vitally important for all tourism textile handicrafts to obtain awareness of the existence of new information technology. Visions of the future in textile production are featuring more interdisciplinary collaborative work and more global connections that can be succeeded with the application of computer mediated communications. The support of private consultants could also be valuable for the introduction of information technology and the use of multimedia in the design process. Within craft-textile production constraints arise in many forms. The production processes that will be used to manufacture the artefact can constrain the materials and dimensions selected. Tourists’ preferences are constraints and in many situations constraints emerge during the artefact creation. Therefore, techniques for supporting the acquisition and discovery of constraints, such as the human-computer interaction, could be important, but not existing among the questioned handicraft producers.

### 3 THE PROPOSAL

The identified operational problems were many and the efforts focused on pointing them out and propose a possible solution. The research team proposed an educational/training module, suitable for distance learning and e-learning, with simplified lessons on design development [16] and new technology [17]. It also included basic instructions on production, management and marketing. Certainly it is unrealistic for all craft-textile producers to receive training in all the vital operations of an enterprise, and their low educational level makes this even more difficult, but on the other hand it is vital to assist them improve the marketing of their products [18]. The module was designed following a previously tested by the research team methodology that was composed of the following steps:

*Awareness of Problem:* Awareness of problem comes from multiple sources - in the present study the questionnaires, the problem identification and the new developments in the craft/tourism industry. The

output of this phase is a proposal, formal or informal. Out of the detailed analysis of the present situation of local tourism craft-textile business emerged the first awareness of the problem on which the research team would focus: how to construct and maintain a support system in order to meet the producers' skill needs.

*Suggestion:* The suggestion phase follows immediately behind the proposal and is intimately connected with it. There were many approaches to the problem and the research group discussed them over a period of months. New insights into the problem continued to emerge from the students undertaken research and questionnaires. During the alternating cycles of discussions, the adaptation of a long distance e-learning system was identified as the best answer to the producers' requests for training and product development. Distance learning was identified suitable to transfer design know-how, to provide opportunities and access to training and to develop the required by the tourism market skills to become competitive. The module, designed and completed by the participating TEI professors, was offered in Greek and English and was composed of three parts: Design education/training, basics on Management/Marketing and fundamental Computer Usage. It was delivered in CD-ROMs, a form suitable for distance learning and e-learning, also as hard copies - a medium preferred by the elder members of the cooperatives, and via the web.

*Development:* Design is implemented in this phase. In the present work the participating students, with the pre-determined criteria of cultural quality and tourists' acceptance, implemented textile design with the quality of a paradigm. They designed textiles and textile products that could maximize the sales and improve the quality of production by using updated technologies, without depriving the craft products of their local cultural identity. In addition, a simple design-production methodology was offered and basic principals on colour/combinations, in order to help improve the craft producers' aesthetics and designing abilities.

*Evaluation:* Evaluation, according to predetermine criteria in the proposal (Awareness of Problem phase) is implemented at the final face, since multiple evaluations of the phases of the total work take place continuously within the project process. The consulting assistance, market research and market acceptability of collaborating tourism local and export business were parts of the evaluation process. The final evaluation was completed with the application of the module via training seminars.

*Conclusion:* This phase is the satisfying finale of the specific research effort, though there can be deviations from the original expectations. For the present work 'the satisfying finale' were the textile cooperatives positive acceptance and usage of the module. Until the present day sixty tourism craft-textile producers have benefited from the study of the module, directly by attending the seminars or indirectly by compiling knowledge from the e-learning material.

The use of information and communications technology could encourage information flows among handicrafts, positively contributing to their learning and product innovation. Promoting creativity is one of the best ways of maintaining cultural vitality in textile production. Access to the new technologies opens new ways for original forms of expression. Within this spirit, the project proposes new, simplified, design strategies adapted to the producers' educational level, engaging the potential of computer technology in the design process and application.

#### 4 DISCUSSION

The proposal was designed to meet the producers skill needs, necessities and requirements, regardless of their locations and operational and cultural differences. The reasons to move from traditional teaching or training processes towards distance learning were many. The vital ones were the location of the participants and their educational differences. The e-learning/distance education course was designed in such a way that learners with different education backgrounds and preferred learning approaches would feel motivated and gain the best possible learning results from such courses [19]. For successful learning to take place, it is important to have sufficient motivation to learn. In the art and design field the greatest part of learning is independent learning, a quality that determined the decisions of the research team. People involved in textile design are mainly 'visual thinkers', preferring a practical, visual, learning approach. They appreciate materials, which are well conceived visually, but they can be critical or dismissive of those, which may not meet their aesthetic preferences. They respond well to materials or activities that provide them with the stimulus to create something. In the field of Arts and Crafts it is important to have *Vision*, to be able to give form to visions and present your image, to know how it will appear, to have an idea of the character of the

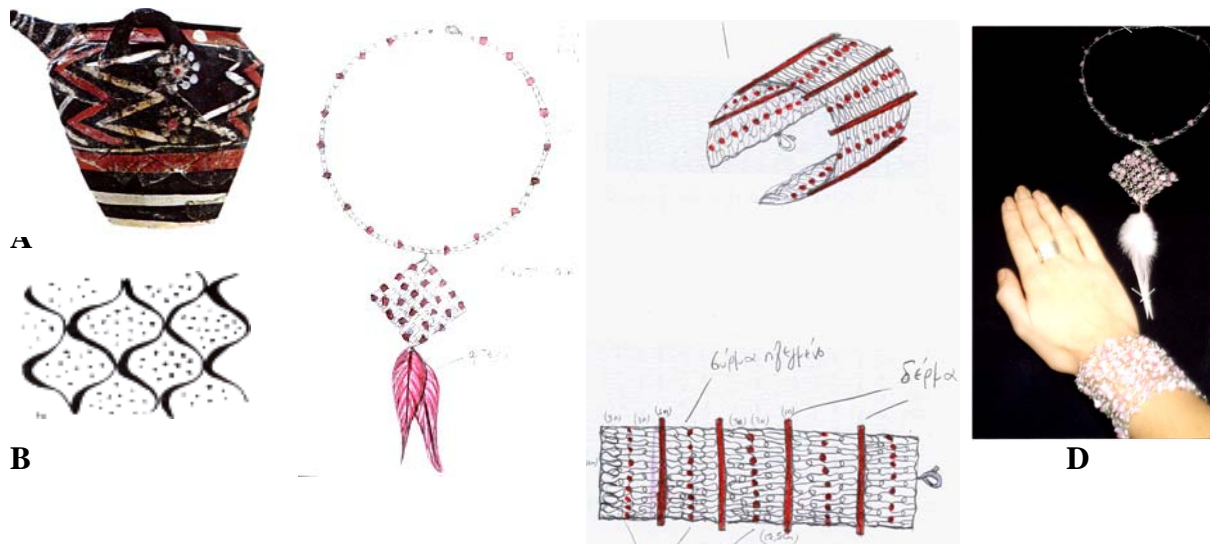


finished object, [20]. Learning difficulties, as dyslexia, do not affect craftsmen work. Many gifted ones who use the new, visually oriented technologies are dyslexic or have other learning difficulties. In design a great part of learning is resource-based. Learning resources take many forms, including human resources (tutors, fellow-students) and information-type resources (books, databases, learning packages, lecture notes, manuals). Traditionally, the most important types of learning resources used to be paper-based. These were the easiest ways to compile information, from which one could develop his/hers knowledge. Thus, and within the application of the module, paper-based hard copies were the selected by the research team educational media for the elder member of the textile cooperatives. Keeping in mind all the aforementioned factors, the research team designed the module including processes and resources that assisted the producers to learn in an effective way. It was a challenge for the researchers of the present distance education course to determine the learners' preferred learning approaches and related social and cultural issues, and to design a learning environment that meet their needs. The module used a very simple language and methodology, adapted to the craftsmen educational level assisted with visual representations and examples from their culture and heritage in order to make it more educational and attractive [21]. Simplified, basic knowledge in all areas was offered, particularly in the artistic field, hoping to inspire the imagination and creativity that has for so many generations nourished local traditional cultures. Simple lessons on the principles of design [22], the use of colours, the traditional designs and media of production were parts of the Artistic Design [23]. Step-by-step examples of design development [24], colour combinations and new product development [25] were presented, all inspired by well-known to craft producers traditional prototypes. Inspirations were always together with the final designs/products (figures 1, 2) in order to offer a paradigm on thinking, imagining, designing and creating [26]. Instructions and examples of computer use were offered in CDs, hard copies and the Web. The module was completed with basic examples and web links on *management* - human resources management, finance [27], *marketing* - sales promotion and distribution networks, and *production* - production organization, planning, monitoring and quality control.



**Figure 1.** One of the many step-by-step paradigms on design methodology: **A**, inspiration, a well known traditional embroidery; **B**, design simplification; **C** and **D**, design developments and colour combinations/possibilities.

Design professors guided the participating students to select the cultural data, create the design examples of the module and develop the design/colour methodology. The module has the qualities of being attractive, colourful, practical and simple, so that learners of different ages and with preferred learning approaches/education or learning disabilities would be motivated. The research team is hoping to inspire craft producers' imagination and creativity, to help them visualize evolutionary, innovative design possibilities of well known and overworked designs, to open up their minds in designing, in new technologies and possibilities, and not to force specific designs and applications on them. All interested can find ways for the development of new products and designs, knowledge of aesthetics, examples of true tradition and heritage, basics on marketing, new technology and management [28]. The creation of networks for cooperation and utilization of synergies was also discussed, pointed out and analysed within the educational seminars. It could offer regional financial opportunities and stimulate provincial youngsters, women and people in remote/rural areas to become involved in textile production and take up positions in the local and regional craft businesses [29].



**Figure 3.** Example of the proposed product diversification and the presented by the module, step by step, design/work methodology: **A**, inspiration; **B**, first step of designing; **C**, jewel design, implementing the well known, to local craft producers, art of interlacing; **D**, the produced fashion jewels, made of interlaced silver threads, glass pearls and feathers.



**Figure 2.** Examples from the proposed product diversification, targeting to new markets: Hand-made marionettes for children and theatrical performances. They are hand-made, from fibres and hand-decorated cloth, inspired by local myths and traditions. TEI students with the assistance of the research team made the prototypes as paradigms for the participating craft producers. They were presented and educated within the special training seminars.

## 5 RESULTS

The module opened new opportunities and possibilities by bringing more up to date knowledge and experience in handicraft textile production, and a long-term positive effect to producers deeply rooted professional problems. The delivering of distance learning introduced ways of creating culture, value, social and environmental quality. It provided opportunities to people in the craft production environment to get access in design education and develop necessary skills and become competitive [30]. They realizing that craft-textile competitive power depend on cultural elements, human intelligence and creativity. In times of global networking, increasing competition, persisting unresolved economic problems, handicraft producers must endeavour, more than ever before, to link

their tasks to wider objectives, if they wish to escape from exclusiveness and obtain the inclusiveness they deserve. Collaboration between textile handicrafts and professional textile designers started. Professional designers are interested in the textile-tourism business and the production of handicraft textile items.

The project pointed to all participants, students, educators and textile producers, tourism business, the importance of cultural continuity and resources, of cultural and social exchanges that derive from tourism, of local processes and materials, and of the craft business to the regional growth in the concept of economic and social development. The project wished to generate a positive relationship between culture-craft production and design-craft product. Creativity and cultural heritage are still playing a very important role in contemporary aesthetics, generating the power of arts and crafts with or without technical process. The benefit of a new craft design vision is not wedged within regional borders and for the present moment. It is for all people and for the future to come. Design is a field of study able to participate in the processes that develop creativity, local values and resources.

One of the most important means of promoting creativity is Education, especially when focusing to employability in the modern workplace. Distance-learning training programmes can offer opportunities to tourism handicraft producers to develop skills, use creative approaches, be imaginative, take risks, question and explore design/product possibilities, in order to meet the changing needs of the 21<sup>st</sup> century tourists. Computers have updated education and design is now “explored” rather than simply “been learned”. Culture and education have been influenced and benefited by technological improvements. The increasing opportunities offered by multimedia and the Internet help those who wish to learn to approach the values of creative design. Art and art education follow technological imperatives for the most part, but are they also influenced by it? The presented here project has attempted cultural production using technologies that do not limit or over-influence it, rendering design a field of study able to participate in the processes that develop creativity, local values and resources.

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