



DOI 10.1515/msd-2015-0016

PERFORMANCE ASSESSMENT OF FOOD SAFETY TRAINING PROGRAMME: USE OF TOOLS

Ramona Maria, IANCU¹, Mihaela Adriana, TIȚA¹ and Hakan, ÇALAP²

¹Lucian Blaga University from Sibiu, Romania, iancu_r@yahoo.com

²Kayseri Kiz Teknik Ve Kiz Meslek Lisesi, Turkey

ABSTRACT: The objective of the European Union's food safety policy is to protect consumer health and interests. The existing education systems in EU are in need of innovative learning tools, in order to provide a quality training of future staff, from food sector, to be able to put European food safety policy into practice. The structure of this study is a vocational e-learning training program which aims to develop learning tools by which students, unemployed people and young workers would acquire the key competencies in the field of food services and food industry. The participants to this vocational e-learning training program were from Sibiu area. In this project there were enrolled 137 participants, 52 students and 85 unemployed people and workers. At the end, we evaluate the knowledge gained for each participant by applying tests and questionnaires. The results were positive due to the good quality of the content provided by the learning material, and the easy access to information. The purpose of this training was to understand the participant's needs and how the quality of their knowledge influences purchasing choice regarding the food safety.

KEY WORDS: food, safety, education, management

1. INTRODUCTION

The objective of the European Union's food safety policy is to protect consumer health and interests. [1, 7] The existing education systems in EU are in need of innovative learning tools, in order to provide a quality training of future staff, from food sector, to be able to put European food safety policy into practice. [8, 2]

Our study is part of a research project financed by the EU which aims to meet this need. The structure of this study is a vocational e-learning training program which aims: to develop learning tools by which students, unemployed people and young workers would acquire the key competencies in the field of food services and food industry; to develop key competencies and professional building through training seminars and lessons for companies and schools (teachers and students) in the field mentioned above; to increase the motivation for professional development in students, young workers and teachers, by offering them an accessible, free, updated learning tool; to reduce food safety risks all along the food chain by providing these innovative and up to date learning tools; to provide an e-learning system, with a perspective of future certification and qualification recognition in EU. [3, 5]

2. MATERIALS AND METHODS

A qualitative method, namely the interview, was used for the needs analysis. 31 teachers from Romania were interviewed, all of them having an average experience of 20 years in teaching food safety.

After analysing the answers of the respondents, the following needs have been identified: 74, 19% of teachers consider that there is a lack of updated teaching materials in Hygiene and Food Safety; 83,87% express for the insufficient content of the existing materials; 87,09% said that there is a reduced practical character of existing materials; a low level of accessibility of the existing materials, 75% of responders; 70%, the teachers having to make use of older manuals and courses; the need to adapt the existing materials to the requirements imposed by the EU legislation, 90,32%; the need to make the materials more attractive, 93,54%.

The unemployed people's job applications in the last four years have been analysed; during the last two years there has been a significant demand for jobs in restaurant and hotel service, namely cooks, waiters or bartenders. It is obvious that all these jobs require special training in food safety. [4]

Moreover, this study was made to understand that a high quality in training is needed in order to provide an adequate qualification of the labour force, facilitating in this way its integration into the European labour market. [10]

Three training modules were developed, based on adaptation of food safety learning materials as teaching and learning method. These materials are piloted not only on secondary level but also on tertiary level, on evening courses and adult education.

All the materials were of a very high level and it was used it as base for knowledge transfer to students, unemployed people and young workers from Romania. Not only the courses but also supporting materials was made, training meetings was included to show and teach about the materials and to promote it to a larger number of schools, companies and individuals.

The participants to this vocational e-learning training program were from Sibiu area. In this project there were enrolled 137 participants, 52 students and 85 unemployed people and workers.

Electronic technologies (“e-technologies”) are being rapidly infused into the learning process and infrastructure of professional education as a result of the notable improvements in their computing and communications capability, ease of use, and declining cost. [6, 9]

The principal aim of the study was to improve traditional learning methods by:

- the three work books, in electronic format and on paper, will provide a learner-centre approach; after each learning content the participant has possibility of feedback by solving quizzes and questionnaires, and filling in worksheets;
- the e-learning content was developed taking into account different learning styles, by using multimedia and not only;
- the participants can continue in e-learning system to another level only if he/she has finished and passed the evaluation of the lower level;
- the e-learning system provided a forum for the participants, which improved the learning process by collaborative work;
- each learning content included a number of examples and exercises in connection with real life situations.

3. RESULTS AND DISCUSSION

The most important courses which were developed were a food safety plan based on HACCP performed and developed in order to train the target group. This course contains 9 chapters covering: HACCP and food safety, HACCP composition of the business in hotels and food safety, knowledge document type declarations, food safety in hotels and public catering system, methods of data collection for a specific product, according with customers opinion, tracking of the product from raw material to finished product, dangers and risk analysis and food safety assessment system efficiency.

For a better understanding regarding the degree of knowledge of the target group, we formulated a questionnaire that we managed to find out the level of preparedness of participant.



Figure 1. The educational progress of the participants before to improve the traditional learning methods.

At the beginning of the learning process an initial assessment was applied to the participants and during piloting stage there was also an evaluation, as it can be seen in figure 1 and 2.



Figure 2. The educational progress of the participants before to improve the traditional learning methods.

After the final evaluation, we could give a strong feedback and through the discussion about the method of delivery of the material content, we managed to finalize the degree of acceptability of the materials. At the end we were evaluate the benefit of the individual and the knowledge gained by applying tests and questionnaires. By this approach the participants were able to improve their knowledge, due to the good quality of the content provided by the learning material, and the easy access to information.

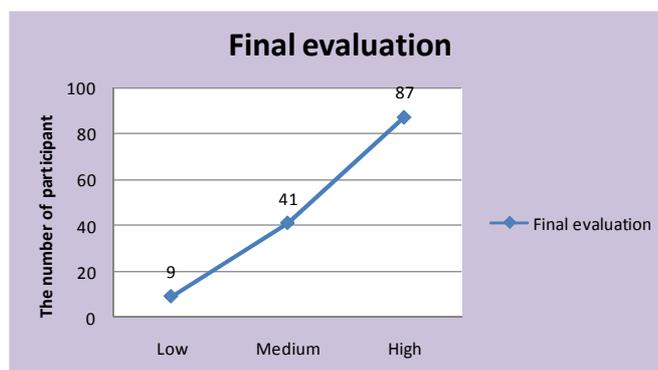


Figure 3. The educational progress of the participants before to improve the traditional learning methods.

The purpose of this training was to understand the participant’s needs and how the quality of their knowledge influences purchasing choice regarding the food safety.

4. CONCLUSION

Taking this into account, our study was innovative because it aims at meeting the needs of the learner (teachers and students from vocational schools, trainers and young workers from companies, decision makers) in an important subject, through an e-learning approach.

An e-learning platform was made to be available to the participant of the training programme. On this platform participants can learn, discuss and evaluate their progress and offer feedback. By this approach the participants (students, unemployed people and young workers) were able to:

- improve their knowledge, due to the good quality of the content provided by the learning material, and the easy access to information;
- personalize the learning process - flexible, anytime/everywhere learning and self-paced learning;
- have the possibility to acquire the key competencies in schools, in view of a future certification.

The main results were that we have a successful training in order to inspire the target group. By the feedback received, we succeed to improve the design and teaching methodology and digital competencies, by developing e-content as supporting material for the modules.

These activities help us to solve a part of the issues by providing a unitary and high quality learning material to persons which are involved in food safety. In the near future, this study will contribute to make it possible for the labour force to acquire unitary key competencies at European level.

5. ACKNOWLEDGEMENTS

This paper is supported by the Lifelong Learning Programme Leonardo da Vinci), financed from the European Social Fund and by the Romanian Government under the contract number 2013-1-RO1-LEO05-28756, LLP-LdV/TOI/2013/RO/007.

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