

**Science popularization actions for teaching food science and technology
in Rio de Janeiro state***

Renata Torrezan

Embrapa Agroindústria de Alimentos

E-mail: renata.torrezan@embrapa.br)

João Eugênio Diaz Rocha

Embrapa Agroindústria de Alimentos

E-mail: joaoeugenio.diaz@embrapa.br

Carlos Eduardo Gabriel Menezes

Instituto Federal de Educação, Ciência e Tecnologia do Rio de Janeiro – Campus

Pinheiral

E-mail: carlos.menezes@ifrj.edu.br

Ricardo Crivano Albieri

Colégio Técnico da Universidade Rural - CTUR

E-mail: ctur@ufrj.br

Raphael Santos Marques da Silva

Embrapa Agroindústria de Alimentos

E-mail: raphael.santos@colaborador.embrapa.br

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Abstract

Over the last few years several initiatives have been undertaken in Brazil and worldwide for the popularization of science, especially by research institutions and interactive museums that have sought to broaden their operation scope. Embrapa Food Technology, located in the municipality of Rio de Janeiro / Brazil has developed several actions to

disseminate their activities which focus on popularizing aimed at Food Science and technology (FS&T). Aiming to develop dissemination actions and cooperate with new dynamic learning, Embrapa established a partnership with Technical College of Federal Rural University (CTUR) and Federal Institute of Education, Science and Technology of Rio de Janeiro - Campus Pinheiral financing by FAPERJ - Carlos Chagas Filho Research Support Foundation to produced animations related to food processing and held a symposium to discuss the teaching of Food S&T in Rio de Janeiro state. These animations were intended to be used as supplementary education to fix concepts of FS&T. The symposium "Teaching of FS&T in the state of Rio de Janeiro: is there anything to innovate?" was focused on teaching professionals and those who are willing to spread knowledge in this area, bringing together 60 professionals from all over the State. The experience gained with this project was presented and raised suggestions for collaboration between institutions of FS&T. There was a great acceptance by the participants of the format of the event (lectures).

Introduction

Over the last few years several initiatives have been undertaken in Brazil and worldwide for the popularization of science, especially by research institutions and interactive museums that have sought to broaden their operation scope. Embrapa Food Technology, located in the municipality of Rio de Janeiro, has a staff which includes 53 researchers with M.Sc and/or Ph.D. degrees and a significant reserve of information in food science and technology (FS&T) that can and should be made available for broadcast and popularization science programs. Hence, this research center has developed several actions to disseminate their activities through courses, seminars, field days, events and visits to its facilities and more recently specific actions which focus on popularizing FS&T. Aiming to develop dissemination actions and cooperate with new dynamic learning it was produced eight animations related to food processing and held a symposium to discuss the teaching of FS&T in Rio de Janeiro state.

Object

The objective of this work was to provide informative technical about food processing on topics of interest to Rio de Janeiro state to complement, promote interest and fix concepts of FS&T. It was delivered eight animations to agricultural technicians in training and other stakeholders. This work also aimed to promote a discussion on ways to teach FS&T in Rio de Janeiro state.

Material and methods

It was developed eight animations material. Animations themes were chosen based on those mentioned by participants in previous courses offered by Embrapa. The basis for the elaboration of the content was ones previously used in the courses handouts. Embrapa elaborated the argument of the animations, the characters suggested, the form of presentation, the technical texts, selected the images for visual composition, accompanied every step of the preparation, assembled the animations and oversaw all the material produced. An external company was hired to produce animations. All prepared texts were corrected technically. Texts, as well as the processing images were sent to the contractor who prepared the storyboards and referred them for Embrapa's evaluation. After approval of the storyboards Embrapa received the incorporation of these statements and actions of each character. The animations produced in the near future will be available on Embrapa website project called "Communication to the popularization of food science and technology".

It was scheduled an event at the end of this project under the theme of teaching food science and technology in partnership with Technical College of Federal Rural University (CTUR) and Federal Institute of Education, Science and Technology of Rio de Janeiro – Campus Pinheiral. The views of the participants of the event were evaluated and the collected data were analyzed.

Results

Eight animations were produced related to food processing themes namely: i) fruit pulp, ii) dehydrated vegetables, iii) jellies and jams, iv) minimal processing of vegetables, v) cheese production, vi) good manufacturing practices, vii) canned fish fillet and viii)

bread production. The topics chosen were previously agreed between Embrapa and direction of the educational partner institutions. Characters with a youthful appeal and national features have been developed. There were selected voice actors and produced texts describing step by step each food processing involved. The main characters were "Chiquinho" and "Ana" they participated in all the animations developed always showing how to produce food. It was created other characters in the stories to compose the text and counteract with the protagonists whenever necessary. The Figure 1 shows some of these actresses in action. These animations were intended to be used as supplementary education for training and for fix some concepts of FS&T.



Figure 1 – Some animations flashes from food processing steps.

The symposium "Teaching of FS&T in the state of Rio de Janeiro: is there anything to innovate?" held on December 6th, 2012, at Embrapa Food Technology. This meeting was focused to teach around 60 professionals and those who are willing to spread the knowledge in this area for the Rio de Janeiro state. The experience gained from this project was presented and raised suggestions of collaboration between institutions of FS&T. There was an acceptance by the participants of the event format (lectures). In addition, the participating public approved the chosen themes and lectures. There was a rating of the presentations which were punctuated the knowledge, clarity,

approach, resources, practical application and qualified staff (Figure 2). Regarding the content of the event, 100% of participants considered that the information received has a practical application in their day-to-day, and 97% believe that it provides additional information (Figure 3).

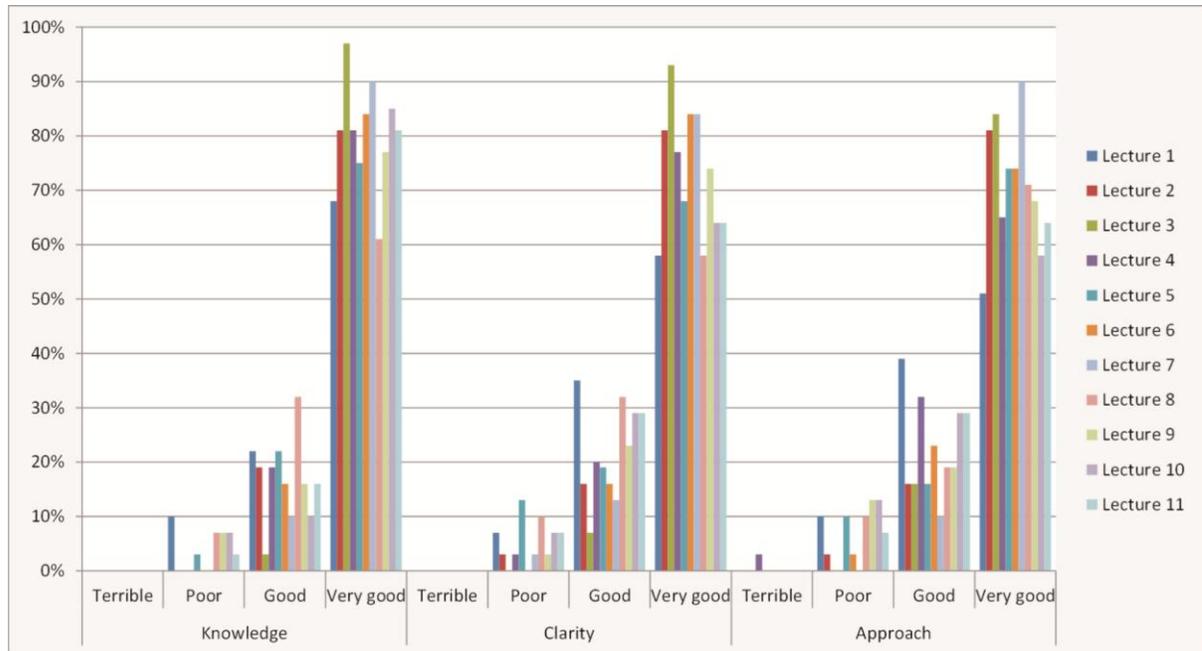


Figure 2 - Evaluation of lectures in terms of knowledge, clarity and approach. Data expressed as percentage of responses.

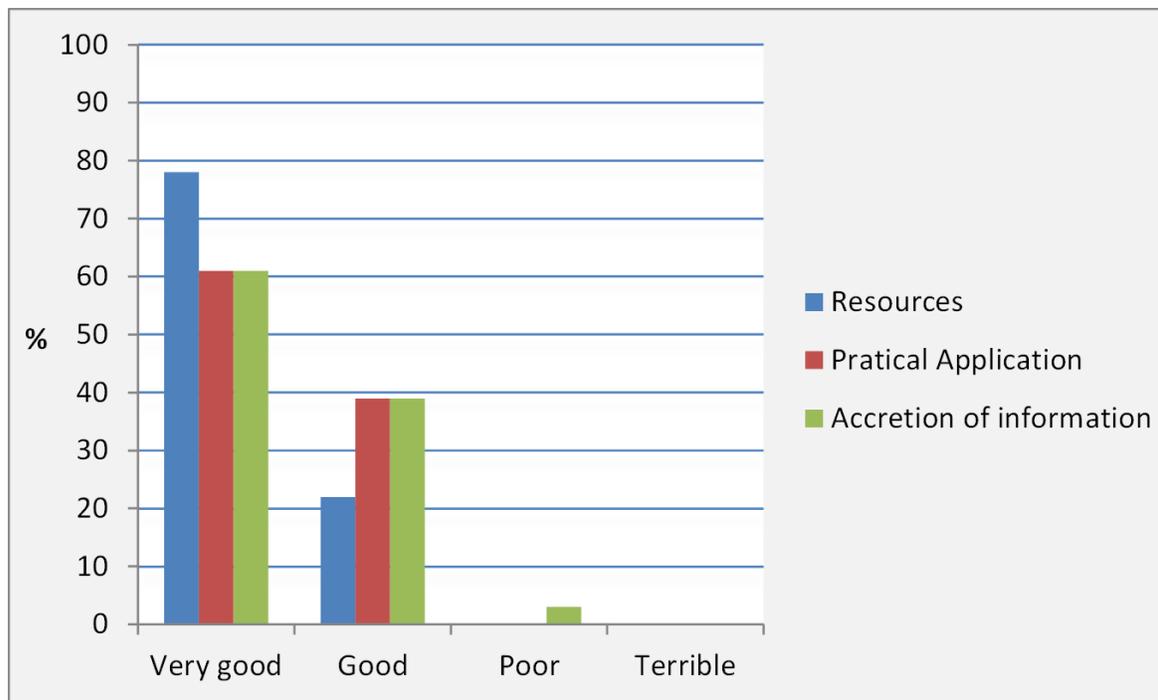


Figure 3 – Evaluation of responses of trained participants regarding the appropriateness and usefulness of information, practical application and increase of knowledge. Data expressed in percentage (%).

Conclusions

The popularization actions for teaching using the animation tools for FS&T and an open discussion forum were considered positive actions by the target groups. When looking at the reactions and suggestions received from trained, it was observed the needs intensify the popularization actions for FS& in metropolitan areas and in the southern state of Rio de Janeiro.