2021-1-PL01-KA220-YOU-000028673

Creative Box: Promoting the innovative approaches to building educational formats in youth work

IO1 – TEACHING MATERIAL "EDUCATIONAL EXPERIMENT: IMPLEMENTATION OF INNOVATIVE SOLUTIONS IN YOUTH EDUCATION"

Organisation: CCIF Cypurs

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Content

Introduction

Although the term “innovation” is difficult to define once and for all, it is very important to understand its features and strong potentials, in order to keep the pace of these constantly changing times.
The educational field has strongly experienced these needs to stay updated expecially during (and should we say after?) the pandemic period. This drastic event accelerated a real “educational revolution” as technolgy and new teaching methods and solutions were designed and adopted. But, as we will see, not everyone had the ability to keep up well with this drastic and repentin change in education, due to many different factors such as lack of time and money.
Thus, our aim is to point out the positive aspects apported in education by this changes and to demostrate the validity of some strategies for implementing innovative educational solutions, such as classroom experiments.
Finally, as it is important to understand how to use and better exploit new technological or/and innovative solutions, we will present a set of “good steps” in order to achieve a good-quality e-learning experience as the learner is the focus.

In order to develop the main topic “EDUCATIONAL EXPERIMENT: IMPLEMENTATION OF INNOVATIVE SOLUTIONS IN YOUTH EDUCATION” it is necessary to divide it in 3 different sub-topic:

- “Experiments in education and how to efficiently conduct them”;
- “Innovation and education”;
- “Conducting a classroom experiment about the introduction of technology in classes”.

Each topic will be built up with a general introduction and its contents; here links to our webinars and main topics presentations will be found: these will be very important for the development of the module.

The last topic “Conducting a classroom experiment about the introduction of technology in classes”, will be carried out as a practical task for learners ending with an active and critical discussion among them.
In doing so, we are positive we can reach the following result: learners will understand aspects of implementation of innovative solutions in youth education and pilot own developed educations products for youth.

Topics

1. "Experiments in education and how to efficiently conduct them"

INTRODUCTION

This first topic is oriented in giving a general excursus about the educational revolution throughout the years, giving particularly attention to the pandemic period. This led to many changes expecially in the educatinal field, which has met technolgy now more than ever. Moreover, it has been realised that a way to evolve and better adapt is to introuduce efficient classroom experiments; these will probably lead to the discorvery of better teaching methods as they cherish the student-teacher interaction and teamwork. (Webinar 1)
Thus, it is important both for learners and teachers to understand how to conduct an efficient classroom experiment in order to gain the best results, which will be possible cornerstones of innovative educational solutions, learning methods and so on. (Presentation 1)

CONTENT

First of all, it is important to have in mind some steps about the evolution of educational and teaching methods. The change from traditional to modern methods was huge and led to the adoption of slighlty diffrent approches such as "Asking questions instead of giving answers[…]; Transition from Classroom to Network[…]; Moving from consumption to innovation[…]" (Acton Academy Miami South, 2019).
As the electronic revolution took place in 1995, education had the largest share in this process through the concept of "digital learning" which has been supported by always evolving digital tools provided by the constant technological evolution. Technology has also contributed in accelerating the pace of learning by reducing costs associated with learning materials, or delivering projects, and saving teachers' time.
Thus, the introduction of technology in the educational field wasn't enough to face the pandemic outcomes and we will see that a lot of intitutions transitioned to Online Distance Education (Abu Talib, Bettayeb, Omer, 2021). We will explain what ODE is with few of its pros and cons that influenced a lot of insitutions during their decisions.
One of the most famous pros is the "impetus for change" (Abu Talib, Bettayeb, Omer, 2021) that is both the engine and the result of the innovative learning solution called "classroom experiment".

For more information we invite the learnerns to read the article presented in the "Resources" section: Abu Talib, M., Bettayeb, A.M. & Omer, R.I. Analytical study on the impact of technology in higher education during theage of COVID-19: Systematic literature review. Educ Inf Technol 26, 6719-6746 (2021). Retrieved by https://doi.org/10.1007/s10639-021-10507

This educational tool has started as an innovative way of teaching although it is leading to the creation of new knowledge and innovative solutions; it involves both teachers and learners which are required to cooperate in teams.
We are going to discover classroom experiments' potential as well as their uses; furthermore we are going to explain the diffrences between calssroom and research experiments in order for learners to better understand them.

Experiments in the classroom seek to involve students in a decision making environment and allow them to explore the outcomes of their decisions. Experiments can be used to introduce new ideas and so students are in position to build ownership of them. Moreover post-experiment assignments can push students to describe a follow-up experiment or to extend the concept to another application.

This points will be well argued in our own webinar called "EDUCATION AND EXPERIMENTS" (Webinar 1)

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At the end, our webinar will suggest to follow a brief presentation we have made about “How to do a classroom experiment” (Presentation 1). This presentation will give learners a step-by-step guide to follow in order to recreate a classroom experiment with young people and engage them during the activity.

https://drive.google.com/file/d/14zyV9BlwaMYfz_qBxjBpAwosvDyUgHOi/view?usp=share_link

ASSESMENT

☒ The assesments will be conducted through Kahoot.

We will ask the following open-eneded questions through Kahoot and learners will provide their answers. They are usefull to share opinions, critics and thoughts about the topic.

1. How to start developing teachers' skills to fully transition to technology

2. What are the steps to improve educational conditions in your opinion?

3. Does relying completely on technology harm the educational process?

2. "Innovation and education"

INTRODUCTION

A lot about innovation has been said so it is really important to understand this concept in order to be sure of what we are talking about. We think it is really important to have a clear concept in mind so it will be easier to formulate opinions, projects, practical works and so on: if everyone understand the aim, the result will be consistent.
We are going to try to get a definition of the term "Innovation" (Webinar 2) and then link this findings to the educational field. We are going to talk about e-learning and its uses for educatinal pourpuses furthermore we are going to descover what are the so called "innovative solutions" and its application in educational models (Presentation 2).

CONTENT

The term innovation can be defined as " the introduction of something new such as a new idea, method, or device" (Merriam-Webster, 2017).
From this definition we can extract three main prospectives from which we can talk about innovation itself:

- Innovation as an outcome
- Innovaton as a process
- Innovation as mindset

Through our webinar called "WHAT IS INNOVATION?" learners are going to discover that there are multiple outcomes possible as reguards innovative solutions and they are mostly associated with the introduction of new services or products.
Moreover, learners are going to understand that the innovative process is basically the key aspect in order to get valid outcomes. The "innovation cycle" includes the phases of Discovery, Development and Delivery (Khan, K.B., 2018); although each phase is very important, without the last one (delivery) the basic innovation process should not be considered as achieved.
As reguards innovation as mindset, it has been witnessed that innovation has the propensity to flourish when employees and the organization embrace it as a whole (Khan, K.B., 2018). So if skills like associating, observing, questioning, experimenting and networking are applied on both an individual and organizational level, they prepare and enable those groups to think diffrently, laterally and expansively.
In summary, the more an individual or organization demonstrates a fuller understanding of innovation, the greater is the propensity to attain it.

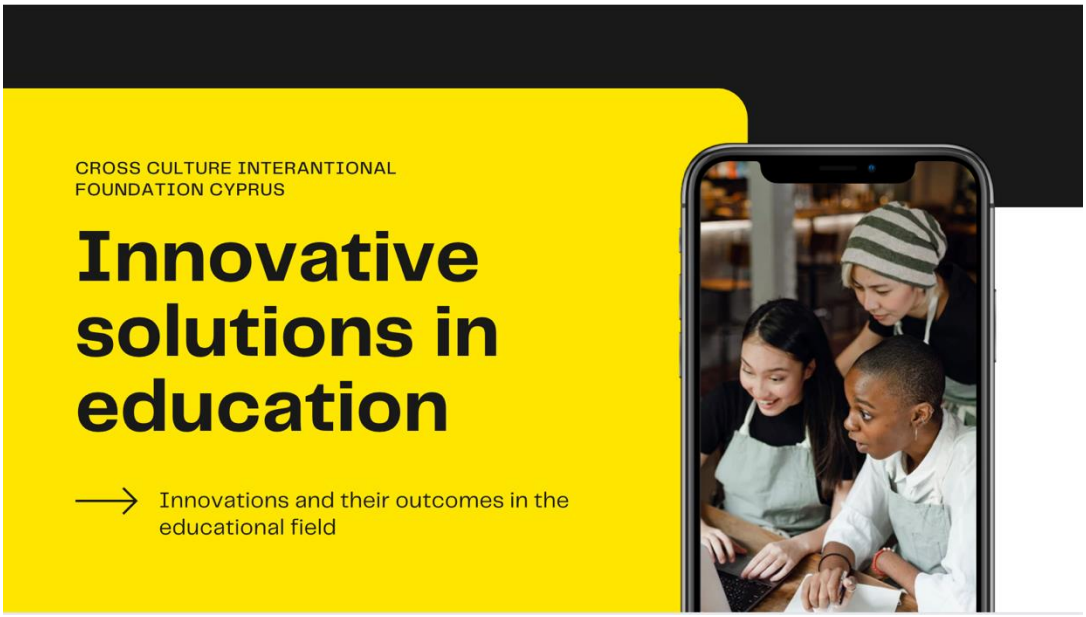
(Webinar 2)

https://drive.google.com/file/d/12-qtn5nV4T6XK3990aXcjiA4dW2JN3Sp/view?usp=share_link

For more information we invite the learnerns to read the article presented in the "Resources" section: Kenneth B. Khan, School of Business, VirginiaCommonwealth University, 301 W. Main Street, Richmond,VA 23284-4000, U.S.A. (2018). Retrieved by www.sciencedirect.com

Nowadays we are witnessing an expansion of innovative solutions in education due to the fast change the pandemic has stared. Moreover, the information revolution of our century has made it possible for students to access to new learning tools.
In our following presentation we will give a shoutout about the e-learing process which involves both students and teachers; those have to cooperate in order to make this new approaches sucessful and able to get even better.

(Presentation 2)



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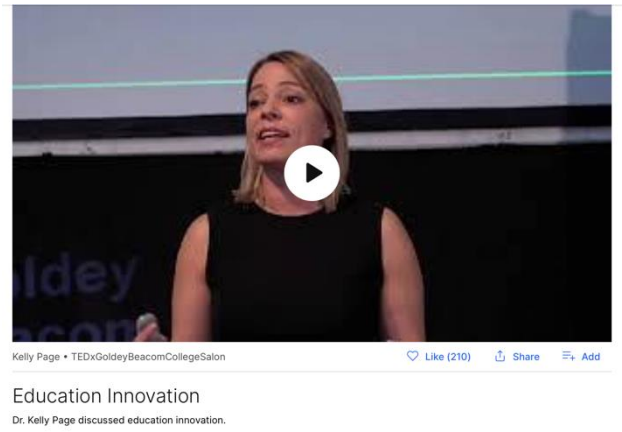
For better compleating this module we invite learners to watch this TedTalk of Kelly Page about "Education Innovation" (from min. 9:00 to min. 16:30)



https://www.ted.com/talks/kelly_page_education_innovation_may_2020

ASSESMENT

☒ The assesments will be conducted through Kahoot.

We will ask the following open-eneded questions through Kahoot and learners will provide their answers. They are usefull to share opinions, critics and thoughts about the topic.

1. What is meant by innovation in the educational process?

2. Is it possible to involve students in creating ideas for the method of modern lessons?

3. How can the success of new ideas that will be introduced into the educational process be measured?

3. "Conducting a classroom experiment about the introduction of technology in classes"

CONTENT and ASSESMENT

In order for the learners to understand the aspects of innovative solutions such as calssroom experiments and the changes brought up in education by new technologies, we will ask them to create a functional and creative classroom experiment.
The main focus of these experiments will be the introduction of technology in classes: the aim of the experiments is teaching to young students how innovations has changed their learning methods with its pros and cons. Also, will be good if the results of these experiments will lead to other ideas to implement and innovate the actual teaching/learning methods.
In doing so, we are going to put togheter all the information acquired during this module; learners will proceed with the creation of this final task following our presentatin "How to do a classroom experiment". Here follow the points they will work on:

- What kind of groups will be formed?

- What will be the main task?
- For how long do the goups have to work?
- Make them do predictions on the results before starting
- How will be structured the sharing phase of the conclusions?
- Whatare the conlusions? Are they espected/unespected?

The building of this final task and the answers to those leading questions will be the body of the assesment phase itself.

As a reference for their classroom experiments projects learners can consult the following sites:
https://serc.carleton.edu/sp/library/experiments/examples.html
https://serc.carleton.edu/econ/experiments/why.html

For the structure of the experiment:
https://serc.carleton.edu/econ/experiments/examples/36305.html

At the end of the module the 3 most interesting experiment projects made by learners will be selected and we will analyse and describe them according to the algorithm:

- Idea
- Implementation (where, how, what creative techniques, thanks to what happened)
- For whom it was useful and interesting, how it meets the needs of the target audience.
- Risks, what are they? - Loss of relevance due to changes in the needs of the target audience, technical support, funding, availability and need in the team, the need to change and develop the project.
- Possibilities of the project: what does it create? what product (useful information, connections between people, environment for cooperation and co-creation,
- Prospects of further application in other conditions - where when, why, for whom for such occupations
- Conclusions

These projects will be part of the collection of 12 cases of best youth practices.

References

Kenneth B. Khan, School of Business, VirginiaCommonwealth University, 301 W. Main Street, Richmond,VA 23284-4000, U.S.A. (2018). Retrieved by www.sciencedirect.com

Abu Talib, M., Bettayeb, A.M. & Omer, R.I. Analytical study on the impact of technology in higher education during theage of COVID-19: Systematic literature review. Educ Inf Technol 26, 6719-6746 (2021). Retrieved by https://doi.org/10.1007/s10639-021-10507

https://serc.carleton.edu/sp/library/experiments/how.html (retrieved on 05/09/2022)

https://www.embibe.com/exams/how-is-technology-changing-education/ (retrieved on 05/09/2022)

Shailendra Palvia, Prageet Aeron, Parul Gupta, Diptiranjan Mahapatra, Ratri Parida, Rebecca Rosner & Sumita Sindhi (2018) Online Education: Worldwide Status, Challenges, Trends, and Implications, Journal of Global Information Technology Management, 21:4, 233-241, DOI: 10.1080/1097198X.2018.154226

How Is Technology Changing Education: Improve Learning, 2022 (retrieved by embibe.com on 05/09/2022)

Richardson W., Five Ways Traditional Education Has to Change - National Institute for Student-Centered Education, 2014 (retrieved by nisce.org on 02/09/2022)

Five ways the education system should improve - Acton Academy Miami South, 2019 (retrieved by actonmiamisouth.com on 02/09/2022)

Keys

As part of the content please include the following using the symbols below:

Practical Exercises: An exercise/ a scenario where the learner can apply the knowledge gained.

Tips: Practical tips to be followed by the learner when putting this in practice.

Extra Resources: A few extra resources on the given topic i.e., articles, videos, etc.