Postgraduate Certificate

Fundamentals, Processes and Methods in Educational Research

tech technological university

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Postgraduate Certificate
Fundamentals, Processes and Methods in Educational Research

- Modality: **online**
- Duration: **6 weeks**
- Certificate: **TECH Technological University**
- Dedication: **16h/week**
- Schedule: **at your own pace**
- Exams: **online**

Website: **www.techtitute.com/us/education/postgraduate-certificate/fundamentals-processes-methods-educational-research**

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01

Introduction

Specialize in Fundamentals, Processes and Methods in Educational Research, from professionals with extensive experience in the sector. You will have the most innovative teaching resources in the sector in a 100% online program, which will make it easier to balance professional and personal life.

In-depth knowledge of Fundamentals, Processes and Methods in Educational Research and its multiple implications, in a comprehensive Postgraduate Certificate designed to propel you to another professional level"

This Postgraduate Certificate provides the necessary knowledge to train professionals in Educational Research. It delves into reflection and methodological practices, emphasizing the latest developments in Educational Research.

This high-level program provides students with the knowledge and tools necessary for the analysis of education and its links between research and training.

Throughout the program, students will go cover all the current approaches in Fundamentals, Processes and Methods in Educational Research in the different challenges that their profession as teachers poses.

The fundamentals, processes and methods will be the topics of work and study that the students will be able to integrate in their education. A high-level step that will become a process of improvement, not only on a professional level, but also on a personal level.

This challenge is one of TECH Technological University's social commitments: to help highly qualified professionals train and develop their personal, social and professionals skills throughout the course of their studies.

Not only does it cover theoretical knowledge, but it also shows another way of studying and learning, one which is more organic, simpler and more efficient. TECH works to keep you motivated and to develop a passion for learning within you. And it will push you to think and develop critical thinking skills.

High-level training, supported by advanced technological development and the teaching experience of the best professionals. These are some of its distinguishing features:

This **Postgraduate Certificate in Fundamentals, Processes and Methods in Educational Research** contains the most complete and up-to-date educational program on the market. The most important features of the program include:

- The latest technology in online teaching software
- A highly visual teaching system, supported by graphic and schematic contents that are easy to assimilate and understand
- Practical cases presented by practising experts
- State-of-the-art interactive video systems
- Teaching supported by telepractice
- Continuous updating and recycling systems
- Autonomous learning: full compatibility with other occupations
- Practical exercises for self-evaluation and learning verification
- Support groups and educational synergies: questions to the expert, debate and knowledge forums
- Communication with the teacher and individual reflection work
- Content that is accessible from any fixed or portable device with an Internet connection
- Supplementary documentation databases that are permanently available, even after the course

A program created for professionals who aspire for excellence, and that will enable you to acquire new skills and strategies easily and effectively"

A thorough and complete immersion in the strategies and approaches in Fundamentals, Processes and Methods in Educational Research"

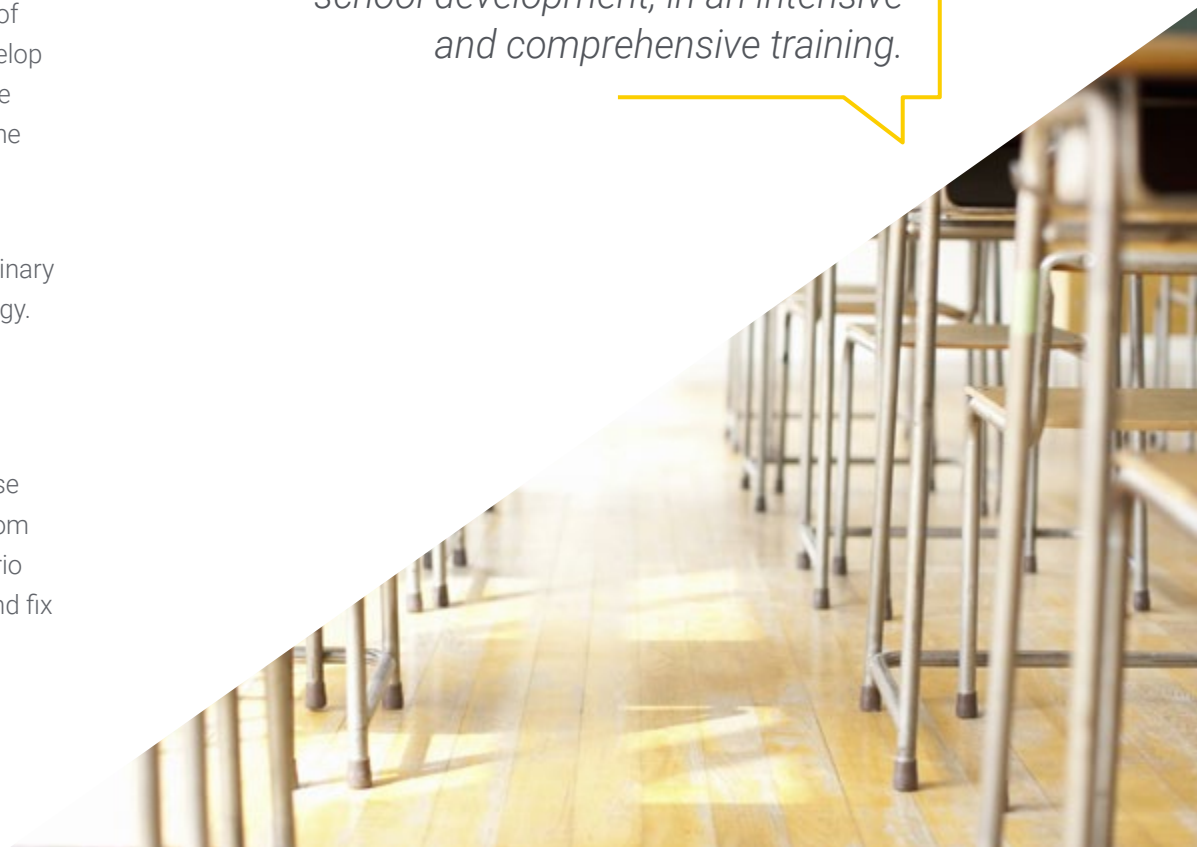
Achieve professional success with this high-level training.

The basic processes of cognitive development in relation to learning and school development, in an intensive and comprehensive training.

Our teaching staff is made up of working professionals. In this way, we ensure to provide you with the up-to-date training we are aiming for. A multidisciplinary team of specialists who are trained and experienced in different environments, who will develop the theoretical knowledge in an efficient manner, but, above all, will put at the service of the program the practical knowledge derived from their own experience: one of the differential qualities of this Postgraduate Certificate.

This mastery of the subject is complemented by the effectiveness of the methodological design of this Postgraduate Certificate. Developed by a multidisciplinary team of e-learning experts, it integrates the latest advances in educational technology. In this way, you will be able to study with a range of comfortable and versatile multimedia tools that will give you the operability you need in your training.

The design of this program is based on Problem-Based Learning: an approach that conceives learning as a highly practical process. To achieve this remotely, we will use telepractice: with the help of an innovative interactive video system and Learning from an Expert you will be able to acquire the knowledge as if you were facing the scenario you are learning at that moment. A concept that will make it possible to integrate and fix learning in a more realistic and permanent way.



02

Objectives

The objective is to train highly qualified professionals for work. An objective that is complemented, moreover, in a global manner, by promoting human development that lays the foundations for a better society. This objective is focused on helping professionals reach a much higher level of expertise and control. A goal that, in just a few months, can be achieved with a highly intense and precise program.

If your goal is to improve in your profession, to acquire a qualification that will enable you to compete among the best, then look no further: welcome to TECH"

General Objectives

- Qualify professionals for the practice of Fundamentals, Processes and Methods in Educational Research
- Learn how to carry out specific programs to improve school performance
- Analyze and integrate the knowledge necessary to foster student's school and social development

Our objective is very simple: to offer you quality education, with the best teaching system available today, so that you can achieve excellence in your profession"

Specific Objectives

- Determine the elements and sequence that should be followed in the methodological design of educational research, in order to frame it within the scientific procedure
- Knowledge and work with basic concepts of descriptive statistics
- Become familiar with univariate and bivariate descriptive statistics
- Acquire skills and interpret a frequency table, a bar chart and some descriptive indexes
- Analyze and interpret qualitative data
- Acquire skills and interpret contingency tables as a tool for descriptive analysis of the relationship between variables
- Know and handle specific computer programs of the area that help to analyze and interpret the results obtained through them

03

Structure and Content

The contents of this specialisation have been developed by the different teachers of this program, with a clear purpose: to ensure that our students acquire each and every one of the necessary skills to become true experts in this field.

The content of this program will allow the student to learn all aspects of the different disciplines involved in this area. A complete and well-structured program will take you to the highest standards of quality and success.

Through a comprehensive but very well compartmentalized program, you will be able to access the most up-to-date and advanced knowledge in Fundamentals, Processes and Methods in Educational Research"

Module 1. Fundamentals, Processes and Methods in Research

1.1. Methodological Design of Educational Research
- 1.1.1. Introduction
- 1.1.2. Approaches or Paradigms in Educational Research
- 1.1.3. Types of Research
  - 1.1.3.1. Basic or Fundamental Research
  - 1.1.3.2. Applied Research
  - 1.1.3.3. Descriptive or Interpretative Research
  - 1.1.3.4. Prospective Research
  - 1.1.3.5. Exploratory Research
- 1.1.4. The Research Process: The Scientific Method

1.2. Statistical Analysis of Data
- 1.2.1. Introduction
- 1.2.2. What is Data Analysis?
- 1.2.3. Types of Variables
- 1.2.4. Measuring Scales

1.3. Univariate Descriptive Statistics (II): Distribution and Polygon of Frequencies
- 1.3.1. Introduction
- 1.3.2. Frequency Distribution
- 1.3.3. Frequency Polygons or Histograms
- 1.3.4. SPSS: Frequencies

1.4. Univariate Descriptive Statistics (I): Position Indexes and Dispersion Indexes
- 1.4.1. Introduction
- 1.4.2. Variables and Types
- 1.4.3. Indices of Position or Central Tendency and Their Properties
  - 1.4.3.1. Arithmetic Mean
  - 1.4.3.2. Median
  - 1.4.3.3. Fashion
- 1.4.4. Dispersion or Variability Indexes
  - 1.4.4.1. Variance
  - 1.4.4.2. Standard Deviation
  - 1.4.4.3. Coefficient of Variation
  - 1.4.4.4. Semiquartile Amplitude
  - 1.4.4.5. Total Amplitude

1.5. Univariate Descriptive Statistics (III): Scores and Index of the Shape of the Distribution
- 1.5.1. Introduction
- 1.5.2. Types of Scores
  - 1.5.2.1. Differential Score
  - 1.5.2.2. Typical Score
  - 1.5.2.3. Centile Score
- 1.5.3. Distribution Shape Index
  - 1.5.3.1. Asymmetry Index (AS)
  - 1.5.3.2. Kurtosis or Kurtosis Index (Cv)

1.6. Exploratory Data Analysis (E.D.A)
- 1.6.1. Introduction
- 1.6.2. Definition of Exploratory Data Analysis
- 1.6.3. Stages of Exploratory Data Analysis
- 1.6.4. SPSS: Exploratory Data Analysis

1.7. Linear Correlation Between Two Variables (X and Y)
- 1.7.1. Introduction
- 1.7.2. Concept of Correlation
- 1.7.3. Types and Correlation Coefficients
- 1.7.4. Pearson's Correlation Coefficient (rxy)
- 1.7.5. Properties of Pearson's Correlation
- 1.7.6. SPSS: Correlation Analysis

1.8. Introduction to Regression Analysis
- 1.8.1. Introduction
- 1.8.2. General Concepts: The Regression Equation of Y on X
- 1.8.3. Goodness-of-Fit Model Index
- 1.8.4. SPSS: Linear Regression Analysis

1.9. Introduction to Inferential Statistics (I)
- 1.9.1. Introduction
- 1.9.2. Probability: General Concept
- 1.9.3. Contingency Tables for Independent Events
- 1.9.4. Theoretical Probability Models with Continuous Variables
  - 1.9.4.1. Normal Distribution
  - 1.9.4.2. Student's T Distribution

1.10. Introduction to Inferential Statistics (II)
- 1.10.1. Introduction
- 1.10.2. Theoretical Probability Models with Continuous Variables
- 1.10.3. Sample Distribution
- 1.10.4. The Logic of Contrast

A complete training that will take you through the knowledge you need to compete among the best"

04

Methodology

This training program offers a different way of learning. Our methodology uses a cyclical learning approach: **Relearning**.

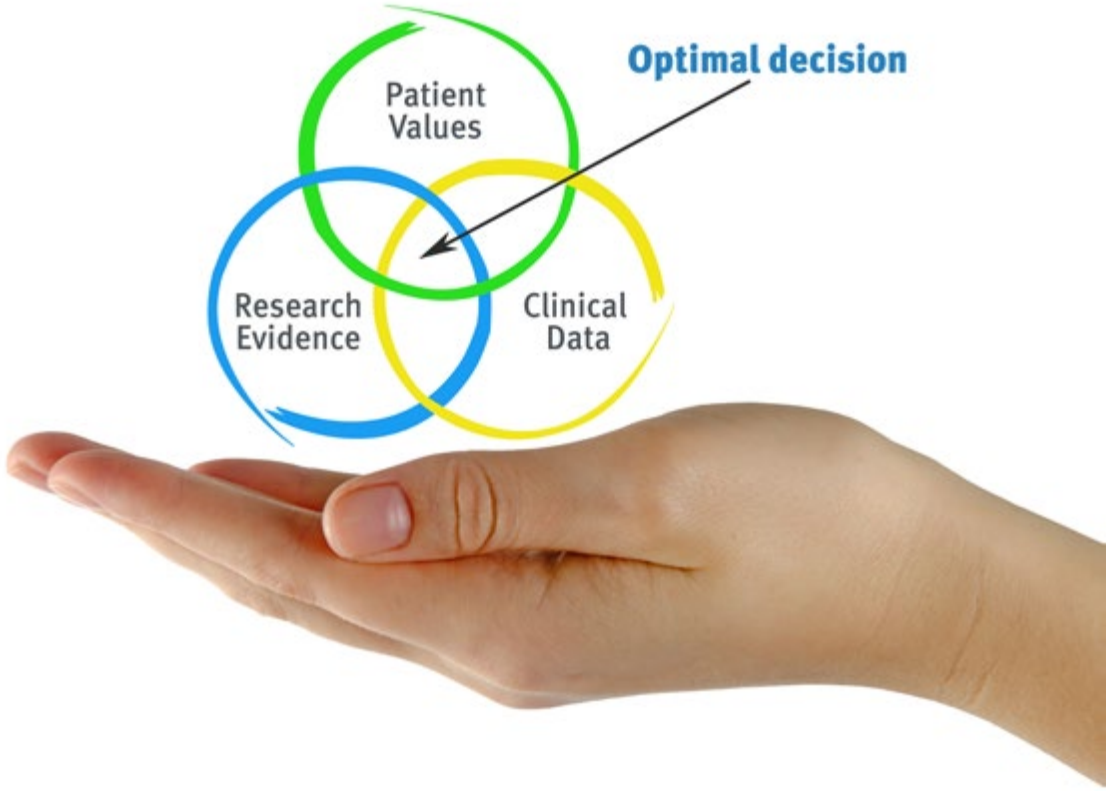
This teaching system is used, for example, in the most prestigious medical schools in the world, and major publications such as the **New England Journal of Medicine** have considered it to be one of the most effective.

Discover Relearning, a system that abandons conventional linear learning, to take you through cyclical teaching systems: a way of learning that has proven to be extremely effective, especially in subjects that require memorization"

At TECH Education School we use the Case Method

In a given situation, what should a professional do? Throughout the program students will be presented with multiple simulated cases based on real situations, where they will have to investigate, establish hypotheses and, finally, resolve the situation. There is an abundance of scientific evidence on the effectiveness of the method.

With TECH, educators can experience a learning methodology that is shaking the foundations of traditional universities around the world.



It is a technique that develops critical skills and prepares educators to make decisions, defend their arguments, and contrast opinions.

Did you know that this method was developed in 1912, at Harvard, for law students? The case method consisted of presenting students with real-life, complex situations for them to make decisions and justify their decisions on how to solve them. In 1924, Harvard adopted it as a standard teaching method"

The effectiveness of the method is justified by four fundamental achievements:

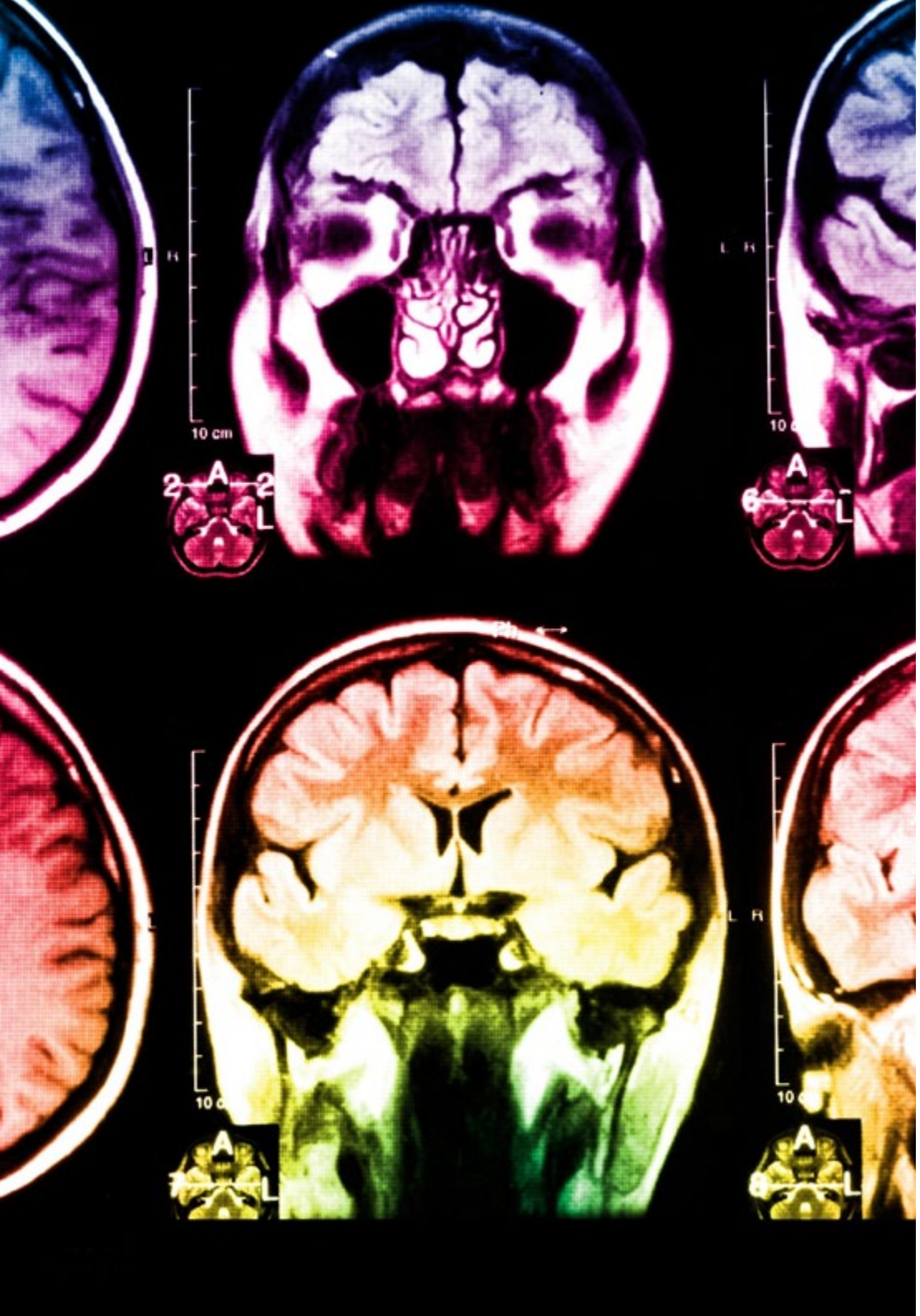
1. Educators who follow this method not only grasp concepts, but also develop their mental capacity, by evaluating real situations and applying their knowledge.
2. The learning process is solidly focused on practical skills that allow educators to better integrate the knowledge into daily practice.
3. Ideas and concepts are understood more efficiently, given that the example situations are based on real-life teaching.
4. Students like to feel that the effort they put into their studies is worthwhile. This then translates into a greater interest in learning and more time dedicated to working on the course.

Relearning Methodology

At TECH we enhance the case method with the best 100% online teaching methodology available: Relearning.

Our University is the first in the world to combine case studies with a 100% online learning system based on repetition, combining a minimum of 8 different elements in each lesson, which represent a real revolution with respect to simply studying and analyzing cases.

Educators will learn through real cases and by solving complex situations in simulated learning environments. These simulations are developed using state-of-the-art software to facilitate immersive learning.



At the forefront of world teaching, the Relearning method has managed to improve the overall satisfaction levels of professionals who complete their studies, with respect to the quality indicators of the best online university (Columbia University).

With this methodology we have trained more than 85,000 educators with unprecedented success in all specialties. All this in a highly demanding environment, where the students have a strong socio-economic profile and an average age of 43.5 years.

Relearning will allow you to learn with less effort and better performance, involving you more in your specialization, developing a critical mindset, defending arguments, and contrasting opinions: a direct equation to success.

In our program, learning is not a linear process, but rather a spiral (learn, unlearn, forget, and re-learn). Therefore, we combine each of these elements concentrically.

The overall score obtained by our learning system is 8.01, according to the highest international standards.

This program offers the best educational material, prepared with professionals in mind:

Study Material

All teaching material is produced by the specialist educators who teach the course, specifically for the course, so that the teaching content is really specific and precise.

These contents are then applied to the audiovisual format, to create the TECH online working method. All this, with the latest techniques that offer high quality pieces in each and every one of the materials that are made available to the student.

Educational Techniques and Procedures on Video

TECH introduces students to the latest techniques, with the latest educational advances, and to the forefront of Education. All this, first-hand, with the maximum rigor, explained and detailed for your assimilation and understanding. And best of all, you can watch them as many times as you want.

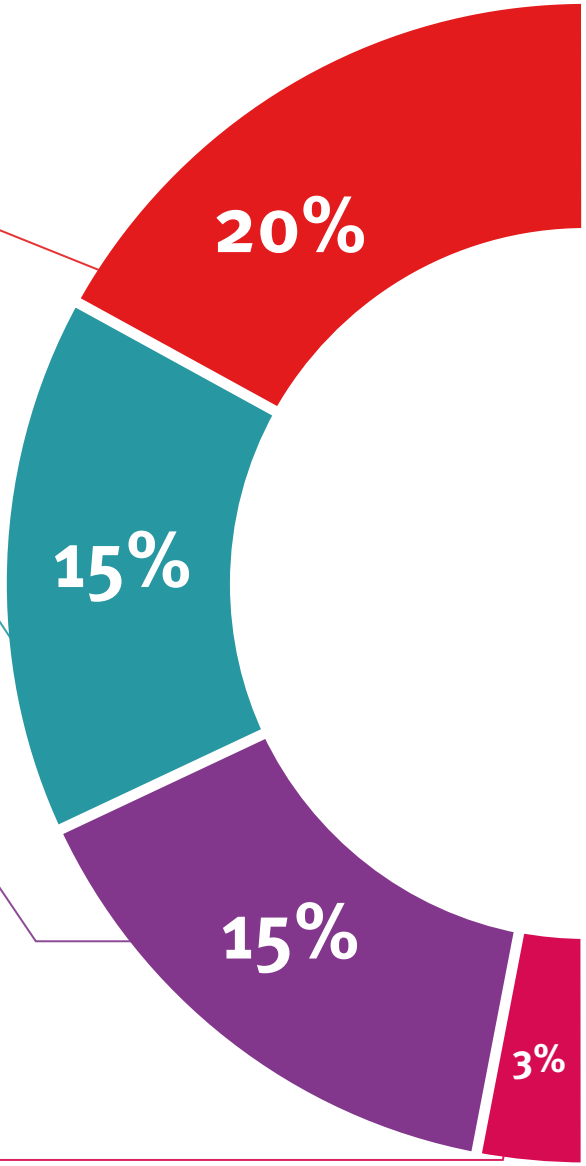
Interactive Summaries

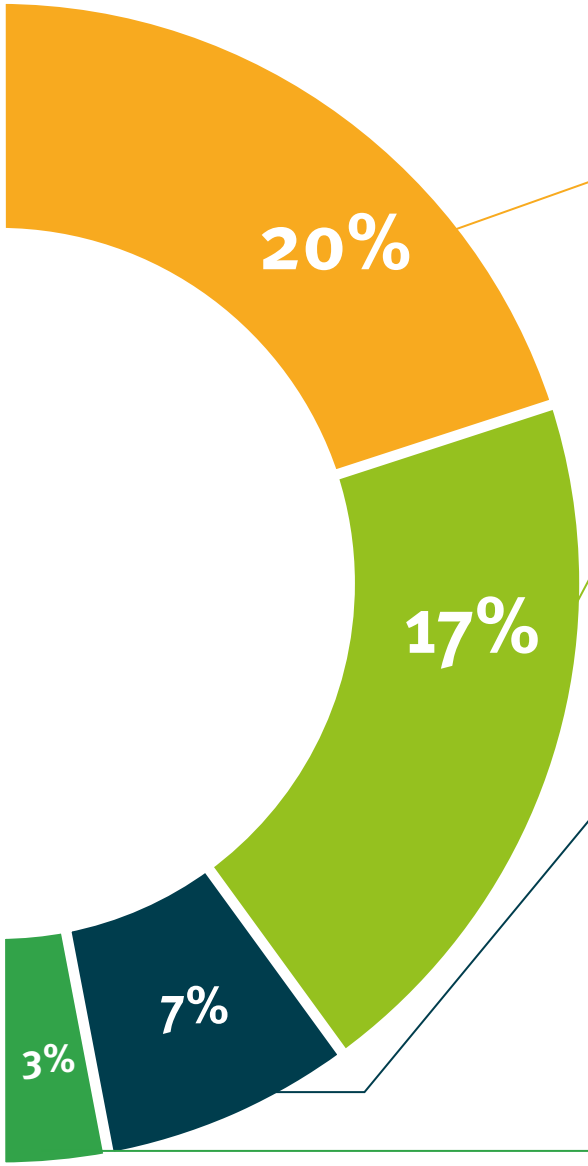
The TECH team presents the contents attractively and dynamically in multimedia lessons that include audio, videos, images, diagrams, and concept maps in order to reinforce knowledge.

This exclusive multimedia content presentation training Exclusive system was awarded by Microsoft as a "European Success Story".

Additional Reading

Recent articles, consensus documents and international guidelines, among others. In TECH's virtual library, students will have access to everything they need to complete their course.





Expert-Led Case Studies and Case Analysis

Effective learning ought to be contextual. Therefore, TECH presents real cases in which the expert will guide students, focusing on and solving the different situations: a clear and direct way to achieve the highest degree of understanding.

Testing & Retesting

We periodically evaluate and re-evaluate students' knowledge throughout the program, through assessment and self-assessment activities and exercises: so that they can see how they are achieving your goals.

Classes

There is scientific evidence suggesting that observing third-party experts can be useful.

Learning from an Expert strengthens knowledge and memory, and generates confidence in future difficult decisions.

Quick Action Guides

TECH offers the most relevant contents of the course in the form of worksheets or quick action guides. A synthetic, practical, and effective way to help students progress in their learning.

05

Certificate

The Postgraduate Certificate in Fundamentals, Processes and Methods in Educational Research guarantees students, in addition to the most rigorous and up-to-date education, access to a Postgraduate Certificate issued by TECH Technological University.

Successfully complete this program and receive your university qualification without having to travel or fill out laborious paperwork"

This **Postgraduate Certificate in Fundamentals, Processes and Methods in Educational Research** contains the most complete and up-to-date program on the market.

After the student has passed the assessments, they will receive their corresponding **Postgraduate Certificate** issued by **TECH Technological University** via tracked delivery*.

The diploma issued by **TECH Technological University** will reflect the qualification obtained in the Postgraduate Certificate, and meets the requirements commonly demanded by labor exchanges, competitive examinations and professional career evaluation committees.

Title: **Postgraduate Certificate in Fundamentals, Processes and Methods in Educational Research**

Official Nº of Hours: **150 h.**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Awards the following

DIPLOMA

to

Mr./Ms. _____, with identification number _____.

For having passed and accredited the following program

POSTGRADUATE CERTIFICATE

in

Fundamentals, Processes and Methods in Educational Research

This is a qualification awarded by this University, equivalent to 150 hours, with a start date of dd/mm/yyyy and an end date of dd/mm/yyyy.

TECH is a Private Institution of Higher Education recognized by the Ministry of Public Education as of June 28, 2018.

June 17, 2020

Tere Guevara Navarro
Dean

This qualification must always be accompanied by the university degree issued by the competent authority to practice professionally in each country.

Unique TECH Code: AFWORD23S techtitute.com/certificates

*Apostille Convention. In the event that the student wishes to have their paper diploma issued with an apostille, TECH EDUCATION will make the necessary arrangements to obtain it, at an additional cost.

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