



## Postgraduate Certificate

## Educational Research Methodology

» Modality: online

» Duration: 6 weeks

» Certificate: TECH Technological University

» Dedication: 16h/week

» Schedule: at your own pace

» Exams: online

 $We b site: {\color{blue}www.techtitute.com/in/education/postgraduate-certificate/educational-research-methodology}$ 

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University professors are responsible for engaging in the complex process of instilling an interest in research in students. Some methodologies are more accurate and productive in educational research, and educators in higher education must be fully aware of them to later apply them in their daily practice. This program offers students a quality and 100% online program that will contribute toward their personal and professional improvement.





## tech 06 | Introduction

The main objectives of this Postgraduate Certificate in Educational Research Methodology are to promote and strengthen the competencies and capabilities of university professors by incorporating the most current teaching tools in higher education. Professors will be able to transmit to their students the motivation required to continue their studies while developing an interest in research, always from a commitment to educational quality.

Throughout the course, they will review the fundamental knowledge of education and teaching to learn the best way to guide and orient students on a daily basis.

The program stands out for its order and distribution of theoretical material, guided practical examples in all its modules, and motivational and explanatory videos. The material will allow for a simple and clear study into higher education institutions, with a specific focus on educational research methodologies.

This will introduce students to the main tools and methodological resources of research, which they will then be able to apply in their lessons to make their daily work more didactic, achieving success in their profession, but also in the future of their students.

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

- Practical cases presented by experts in higher education
- The graphic, schematic, and practical contents with which they are created, provide scientific and practical information on the disciplines that are essential for professional practice
- New developments in educational research methodology competencies
- Practical exercises where self-assessment can be used to improve learning
- A particular focus on innovative methodologies in educational research methodology competencies
- Theoretical lessons, questions to the expert, debate forums on controversial topics, and individual reflection assignments
- Content that is accessible from any fixed or portable device with an internet connection



Add to your skills with this
Postgraduate Certificate in Educational
Research Methodology. You will
improve your skills, give your CV a
competitive edge and increase the
quality of your lessons and delivery"



This Postgraduate Certificate is the best investment you can make in selecting a refresher program to update your knowledge of Educational Research Methodology"

The teaching staff includes higher education professionals who contribute their work experience to this training, as well as renowned specialists from leading societies and prestigious universities.

The multimedia content, developed with the latest educational technology, will provide the professional with situated and contextual learning, i.e., a simulated environment that will provide immersive education programmed to learn in real situations.

This program is designed around Problem-Based Learning, whereby students must try to solve the different professional practice situations that arise throughout the program. For this purpose, teachers will be assisted by an innovative interactive video system developed by renowned experts in the field of educational research with extensive teaching experience.

If you want to learn with the best teaching methodology and multimedia, this is your best option.

This Postgraduate Certificate is 100% online, which will allow you to balance your professional life with your private life, while expanding your knowledge in the field.



# 02 **Objectives**

The Postgraduate Certificate in Educational Research Methodology is oriented to facilitate professional performance based on the latest advances and newest methodologies in higher education.



## tech 10 | Objectives



## **General objectives**

- Encourage skills and competences in university professors
- Understand the most up-to-date tools to work as a professor in higher education
- Learn how to motivate students to take interest in continuing their studies and pursuing academic/scientific research
- Update on the changes taking place in higher education





## Specific objectives

• Know how to develop attitudes and skills for scientific research as an essential requirement to contribute to the progress and welfare of society



Seize the opportunity and take step to get up to date on the latest developments in Educational Research Methodology"







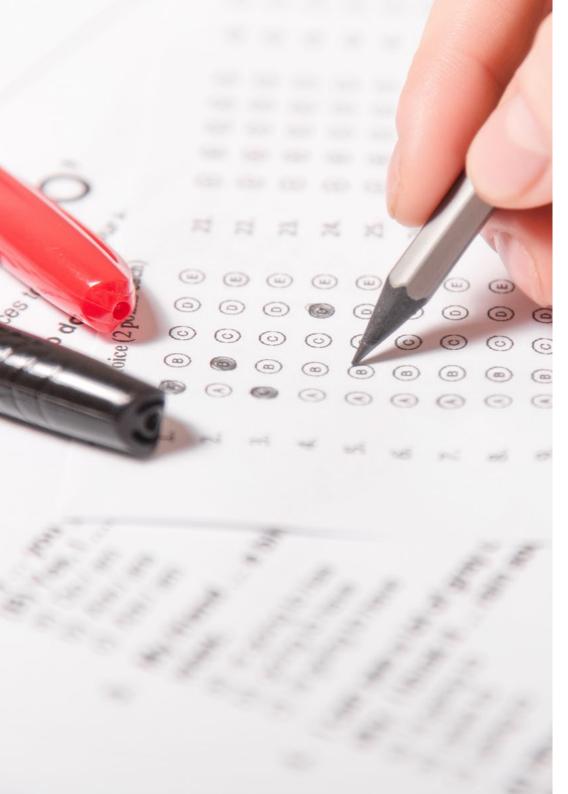
## tech 14 | Course Management

### Management



#### Ms. Jiménez Romero, Yolanda

- Psychopedagogist and Primary School Teacher with a major in English
- Director of the University Teaching and Educational Coaching programs at TECH Technological University
- Co-director of the programs in Language Didactics in Infant and Primary School, Language and Literature Didactics in Secondary and High School, Bilingual Didactics in Secondary and High School and Bilingual Didactics in Infant and Primary School at TECH Technological University
- Co-director and Professor of the Neurosciences Program at TECH Technological University
- Co-director of the programs in Emotional Intelligence and Vocational and Professional Guidance at TECH Technological University
- · Lecturer of the Visual Skills and Academic Achievement program at TECH Technological University
- Teacher in the High Abilities and Inclusive Education program
- Educational psychologist
- Master's Degree in Neuropsychology of High Abilities
- Master's Degree in Emotional Intelligence
- Neurolinguistic Programming Practitioner



## Course Management | 15 tech

#### **Professors**

#### Ms. Álvarez Medina, Nazaret

- Degree in Educational Psychology Oberta University, Catalunya
- Degree in Elementary School Education with a Major in the English Language Camilo José Cela University
- Official Professional Master's Degree on Educational Treatment of Diversity
- Diploma in Teaching English as a Foreign Language La Laguna University
- Degree in Educational and Executive Coaching from the Complutense University of Madrid
- Educational counselor, official in the body of secondary education teachers in the community of Madrid
- Preparer of public education competitive examinations

#### Mr. Gutiérrez Barroso, César

- Studying a PhD in History National University for Distance Learning (UNED) November 2018.
- Degree in History (Castilla La Mancha University) 2001-2006
- Master's Degree in Multiple Intelligences for Secondary School (Alcalá de Henares University)
- Master's Degree in Museology Study Techniques Center (Madrid) 2007
- Middle School and High School Teacher at Liceo San Pablo School in Leganés Geography and History Teacher of 6th and 8th Grade and Senior year of High School (9/11/2018-11/09/2019)

## tech 16 | Course Management

#### Dr. Valero Moreno, Juan José

- Agricultural Engineer School of Agricultural Engineering University of Castilla-La Mancha. Albacete, 2000
- Master's Degree in Management of Occupational Risk Prevention, Excellence, Environment and Corporate Responsibility ESEA- Camilo Jose Cela University, 2014 Seville
- Master's Degree in Research and Innovation in Education Speciality: Quality and Equity in Education (100 ETCS) UNED. Madrid, 2014
- Master's Degree in Occupational Risk Prevention UNIR Online University, 2011

#### Mr. Pattier Bocos, Daniel

- PhD in Education Complutense University of Madrid. 2017- present
- Degree in Elementary Education Teaching Complutense University of Madrid. 2010-2014
- Master's Degree in Research and Innovation in Education UNED. 2014-2016
- University Professor in Didactics and Curricular Innovation (bilingual in English)
   Complutense University of Madrid
- Creator of university materials and content UNIR, CEU Cardenal Herrera University
- Trainee University Lecturer Researcher in Education Complutense University of Madrid
- Finalist for the Best Teacher Prize in Spain, 2018

#### Mr. Manzano García, Laureano

- Degree in Psychology from Autonomous University of Madrid, 1996
- Degree in Special Education from ESCUNI Madrid 2002
- Competitive examinations tutor in face-to-face and online classes, as well as
  distance tutoring for the specialist subjects of Special Education (teachers) and
  Educational Guidance (high school) Since 2002
- Teacher at Victoria Middle School and High School, Kent Since 2012





## Course Management | 17 tech

#### Mr. Fernández Cebrián, José María

- Degree in Teaching Complutense University of Madrid (2017-2010)
- Master's Degree in Education Center Management Antonio de Nebrija University (2012)
- Online Master's Degree in Secondary Teacher Training. Cardenal Herrera University (2018-2019)
- Online Trainer in Education Center Management CIESE-Comillas Foundation Since June 2019

#### Mr. Visconti Ibarra, Martin Edgardo

- PhD in Education and Behavioral Sciences Vigo University Since 2015
- Degree in Elementary Education Teaching Faculty of Social Sciences, Education and Sports of Pontevedra (2009-2014)
- Master's Degree in Learning and Cognitive Processes Faculty of Social Sciences, Education and History of Ourense (2014-2015)
- Master's Degree in Education Center Management Cardenal Herrera University (Since May 2019)
- Director of European Bilingual Academy School (El Salvador) Since 2018





## tech 20 | Structure and Content

### Module 1. Educational Research Methodology

- 1.1. Basic Notions of Investigation: Science and the Scientific Method
  - 1.1.1. Definition of the Scientific Method
  - 1.1.2. Analytical Method
  - 1.1.3. Synthetic Method
  - 1.1.4. Inductive Method
  - 1.1.5. Cartesian Thought
  - 1.1.6. Rules of the Cartesian Method
  - 1.1.7. Methodical Doubt
  - 1.1.8. The First Cartesian Principle
  - 1.1.9. Induction Procedures According to J. Mill Stuart
- 1.2. The General Process of Research: Quantitative and Qualitative Focus
  - 1.2.1. Epistemological Assumptions
  - 1.2.2. Approach to Reality and the Object of Study
  - 1.2.3. Subject-Object Relationship
  - 1.2.4. Objectivity
  - 1.2.5. Methodological Processes
  - 1.2.6. Integration of Methods
- 1.3. Research Paradigms and Methods Derived from These
  - 1.3.1. How do Research Ideas Arise?
  - 1.3.2. What is there to Research in Education?
  - 1.3.3. Research Problem Statement
  - 1.3.4. Background, Justification and Research Objectives
  - 1.3.5. Theoretical Foundation
  - 1.3.6. Hypotheses, Variables and Definition of Operational Concepts
  - 1.3.7. Choosing a Research Design
  - 1.3.8. Sampling in Quantitative and Qualitative Studies



## Structure and Content | 21 tech

- 1.4. Phases and Stages of Qualitative Research
  - 1.4.1. Phase 1 Conceptual Phase
  - 1.4.2. Phase 2 Planning and Design Phase
  - 1.4.3. Phase 3 Empirical Phase
  - 1.4.4. Phase 4 Analytical Phase
  - 1.4.5. Phase 5 Diffusion Phase
- 1.5. Types of Quantitative Research
  - 1.5.1. Historical Research
  - 1.5.2. Correlation Research
  - 1.5.3. Case Studies
  - 1.5.4. "Ex Post Facto" Research of Completed Events
  - 1.5.5. Quasi-Experimental Research
  - 1.5.6. Experimental Research
- 1.6. Phases and Stages of Qualitative Research
  - 1.6.1. Phase 1 Preparation Phase
  - 1.6.2. Phase 2 Field Phase
  - 1.6.3. Phase 3 Analytical Phase
  - 1.6.4. Phase 4 Informative Phase
- 1.7. Types of Qualitative Research
  - 1.7.1. Ethnography
  - 1.7.2. Grounded Theory
  - 1.7.3. Phenomenology
  - 1.7.4. The Biographical Method and Life History
  - 1.7.5. The Case Study
  - 1.7.6. Content Analysis
  - 1.7.7. Examining the Discourse
  - 1.7.8. Participatory Action Research

- 1.8. Techniques and Instruments for Collecting Quantitative Data
  - 1.8.1. The Structured Interview
  - 1.8.2. The Structured Questionnaire
  - 1.8.3. Systematic Observation
  - 1.8.4. Attitude Scales
  - 1.8.5. Statistics
  - 1.8.6. Secondary Sources of Information
- 1.9. Techniques and Instruments for Collecting Qualitative Data
  - 1.9.1. Unstructured Interviews
  - 1.9.2. In-Depth Interviews
  - 1.9.3. Focus Groups
  - 1.9.4. Simple, Unregulated and Participant Observation
  - 1.9.5. Vidal Stories
  - 1.9.6. Diaries
  - 1.9.7. Content Analysis
  - 1.9.8. The Ethnographic Method
- 1.10. Data Quality Control
  - 1.10.1. Requirements for a Measuring Instrument
  - 1.10.2. Processing and Analysis of Quantitative Data
    - 1.10.2.1. Validation of Ouantitative Data
    - 1.10.2.2. Statistics for Data Analysis
    - 1.10.2.3. Descriptive Statistics
    - 1.10.2.4. Inferential Statistics
  - 1.10.3. Processing and Analysis of Qualitative Data
    - 1.10.3.1. Reduction and Characterization
    - 1.10.3.2. Clarify, Refine and Compare
    - 1.10.3.3. Programs for Qualitative Analysis of Textual Data





## tech 24 | Methodology

#### 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:

- 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.



## tech 26 | Methodology

### Relearning Methodology

TECH effectively combines the Case Study methodology with a 100% online learning system based on repetition, which combines 8 different teaching elements in each lesson.

We enhance the Case Study with the best 100% online teaching method: Relearning.

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.



## Methodology | 27 tech

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.

## tech 28 | Methodology

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 adapted in 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**

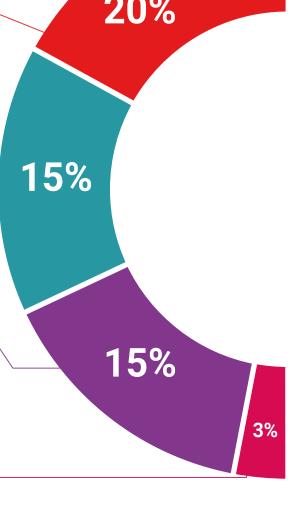
TECH introduces students to the latest techniques, with the latest educational advances, and to the forefront of Education. All this, first-hand, with the maximum rigor, explained and detailed for your assimilation and understanding. And best of all, students can watch them as many times as they want.



#### **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 educational system for presenting multimedia content 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

**Testing & Retesting** 

the expert will guide students, focusing on and solving the different situations: a clear and direct way to achieve the highest degree of understanding.

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 their goals.

#### Classes



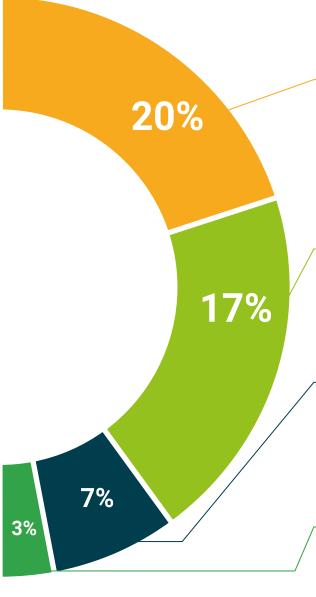
There is scientific evidence suggesting that observing third-party experts can be useful.

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.







## tech 32 | Certificate

This **Postgraduate Certificate in Educational Research Methodology** 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 certificate 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 Research Methodology Educational Official N° of hours: 150 h.



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

technological university Postgraduate Certificate

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