Postgraduate Diploma
Experimental Research in Education

tech *technological university*

Postgraduate Diploma
Experimental Research in Education

Course Modality: **Online**

Duration: **6 months**

Certificate: **TECH Technological University**

Official N° of Hours: **450 h.**

Website: **www.techtitute.com/education/postgraduate-diploma/postgraduate-diploma-experimental-research-education**

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01

Introduction

This program is designed to provide students with specific knowledge of Experimental Research in Education in an intensive, practical and rigorous manner. Great value for any teacher who wants to incorporate these techniques in the classroom.

"
In-depth knowledge of Experimental Research in Education and its numerous implications, in a comprehensive Postgraduate Diploma created to propel you to another professional level"

This Postgraduate Diploma provides the necessary knowledge to train professionals in educational research. It delves into methodological reflection and practices, with emphasis on the latest developments in applied research in teaching.

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

Throughout this program, the students will go through all the current approaches in Experimental Research in Education in the different challenges that their profession as teachers poses.

Computer resources for research and instruments for data collection will be the topics of work and study that the students will be able to integrate in their specialization. A high-level step that will represent a process of improvement, not only on a professional level, but also on a personal level.

This challenge is one that TECH Technological University takes on as a social commitment: to help prepare highly qualified professionals and develop their personal, social and professional skills throughout the course of their studies..

Not only does it lead students through the theoretical knowledge offered, 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 help you develop a passion for learning. And it will push you to think and develop critical thinking abilities.

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

This **Postgraduate Diploma in Experimental Research in Education** 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 are permanently available, even after the course

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

"A deep and comprehensive dive into strategies and approaches in Experimental Research in Education"

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, TECH ensure that we provide you with the up-to-date training we are aiming for. A multidisciplinary team of specialists trained and experienced in different environments, who will develop the theoretical knowledge in an efficient way, 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 Diploma.

This mastery of the subject is complemented by the effectiveness of the methodological design of this Postgraduate Diploma. 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 set of comfortable and versatile multimedia tools that will give you the operability you need for 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 experience. 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 high intensity and precision 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 exercise of Experimental Research in Education
- Learn how to carry out specific programs to improve school performance
- Access to the forms and processes of Experimental Research in Education in the school environment
- Analyze and integrate the knowledge necessary to foster student's school and social development

Make the most of this opportunity and take the step to get up to date on the latest developments in Experimental Research in Education"

Specific objectives

Module 1. Fundamentals, Processes and Methods in Research

- 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

Module 2. Experimental Research: Design as a Model

- Know and be able to apply experimental scientific methodology in research
- Know how to carry out an experimental investigation, following the phases and the approach of the same one
- Differentiate the different experimental designs and be able to apply them correctly
- Experimental rigor
- Apply the correct statistical analysis for each type of design
- Analyze and contrast the data obtained in the empirical setting correctly

Module 3. Techniques and Instruments for Data Collection in Qualitative Research

- Know the techniques for categorizing, analyzing and summarizing qualitative information
- Knowing the quality of the instruments
- Identify and properly use the instruments used to collect information
- Adequately record the information obtained through the observation technique
- Know the ethics of qualitative information

03
Structure and Content

The contents of this training 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 skills necessary to become true experts in this field.

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

Through a complete but very well compartmentalized development, you will be able to access the most advanced knowledge at the moment in Experimental Research in Education"

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
        1.1.3.6. 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.   Model Goodness-of-fitIndex
    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

Module 2. Experimental Research: Design as a Model

Module 3. Techniques and Instruments for Data Collection in Qualitative Research

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.

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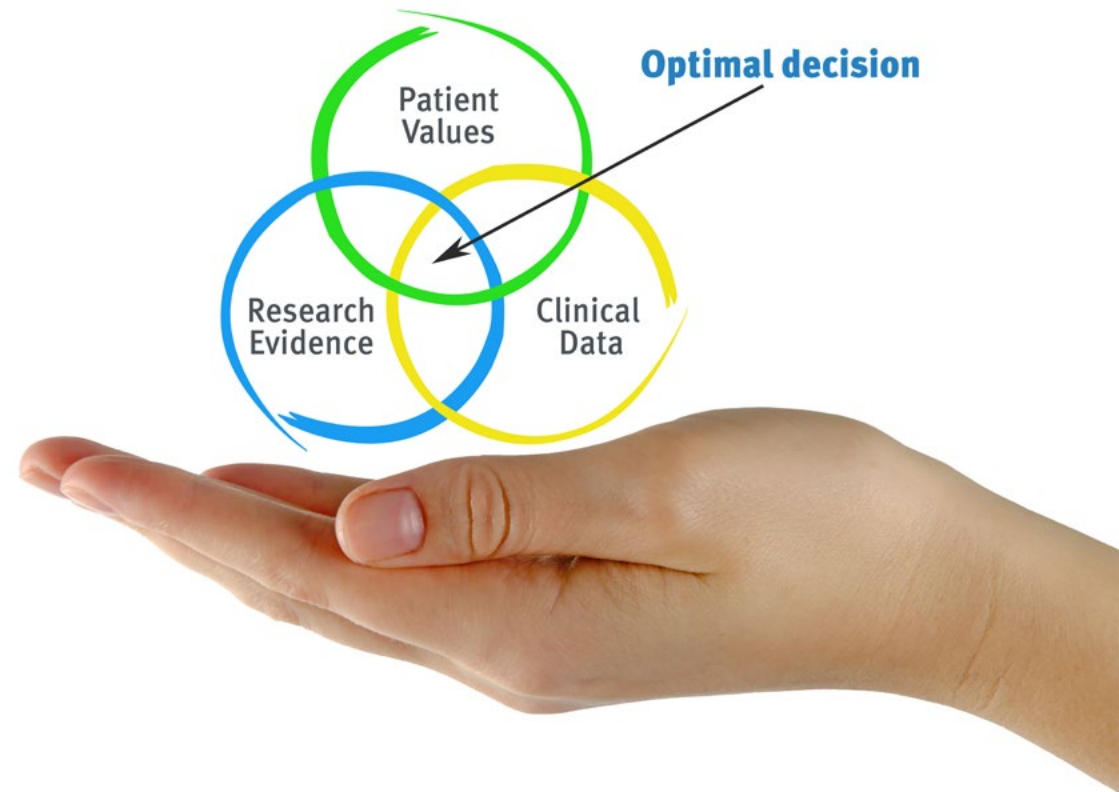
It is a technique that develops critical skills and prepares educators to make decisions, defend their arguments, and contrast opinions.

"

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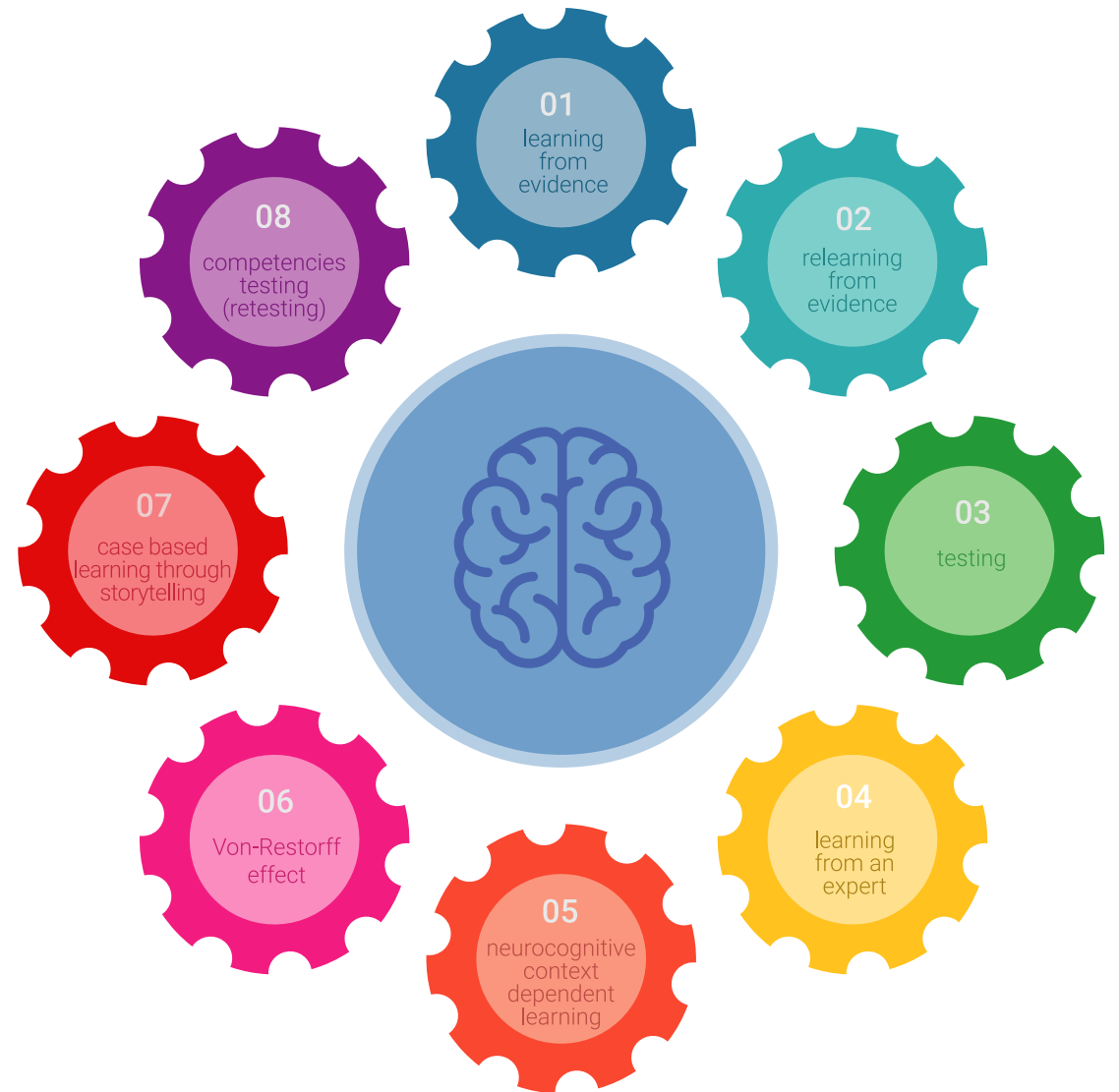
Educators will learn through real cases and by solving complex situations in simulated learning environments. These simulations are developed using state-of-the-art software to facilitate immersive learning.

01
learning from evidence

02
relearning from evidence

03
testing

04
learning from an expert

05
neurocognitive context dependent learning

06
Von-Restorff effect

07
case based learning through storytelling

08
competencies testing (retesting)

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.

20%

15%

15%

3%

20%

17%

7%

3%
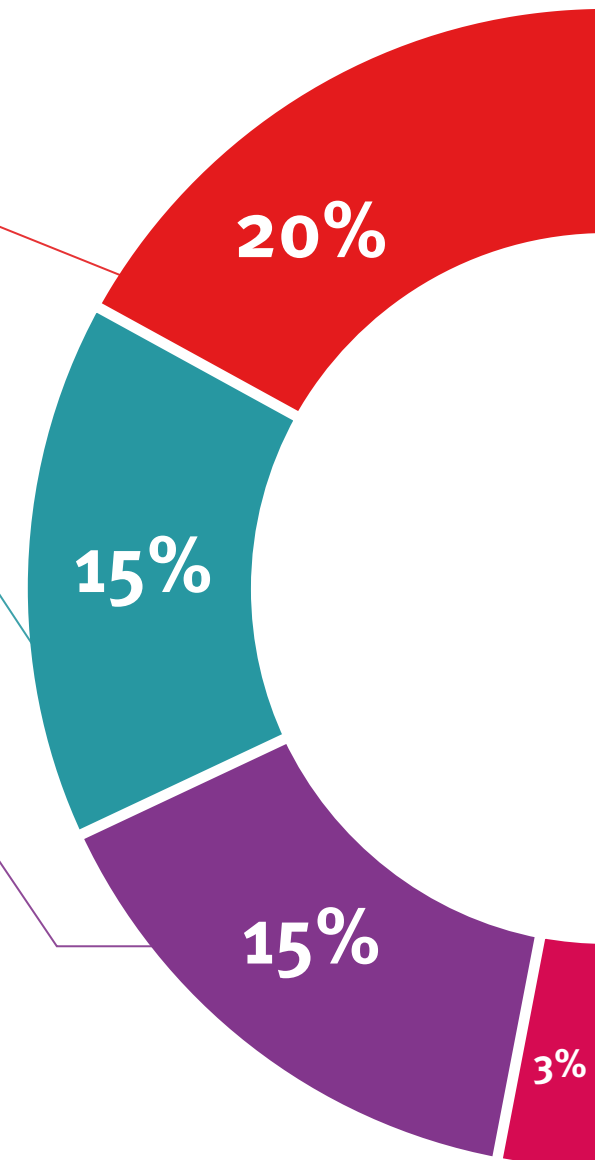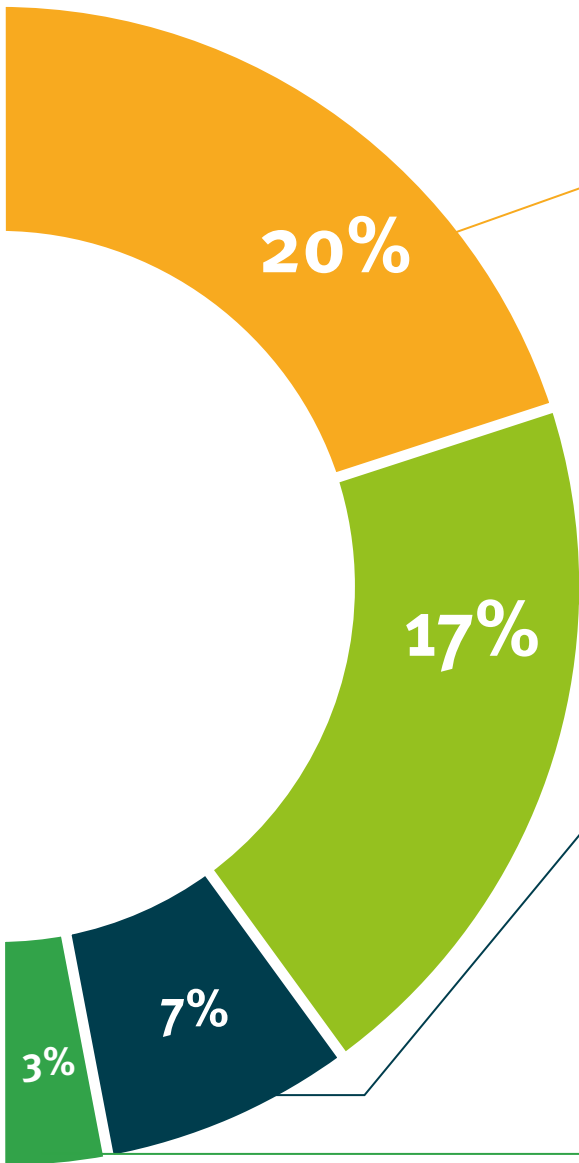
Expert-Led Case Studies and Case Analysis

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

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.

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 Diploma in Experimental Research in Education guarantees students, in addition to the most rigorous and up-to-date education, access to a Postgraduate Diploma 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 Diploma in Experimental Research in Education** contains the most complete and up-to-date educational program on the market.

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

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

Title: **Postgraduate Diploma in Experimental Research in Education**

Official Nº of Hours: **450 h.**

tech technological
university

Awards the following
DIPLOMA
to
Mr./Ms. _____, with identification number _____.
For having passed and accredited the following program

POSTGRADUATE DIPLOMA
in

Experimental Research in Education

This is a qualification awarded by this University, equivalent to 450 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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