Professional Master's Degree

Educational Research

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Professional Master's Degree
Educational Research

- Modality: **Online**
- Duration: **12 months.**
- Certificate: **TECH Global University**
- Accreditation: **60 ECTS**
- Schedule: **at your own pace**
- Exams: **online**

Website: www.techtitute.com/us/education/professional-master-degree/master-research-education

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01

Introduction to the Program

Educational Research is the key to transforming teaching and addressing the challenges of modern education. In a world where pedagogical innovation is advancing rapidly, mastering analysis and evaluation methodologies is essential for making a real impact in the classroom. According to the Ministry of Education and Vocational Training, the promotion of teaching research has been a priority in strategies to improve the educational system. For this reason, TECH offers a cutting-edge academic program designed for professionals seeking to refine their research competencies. A 100% online, flexible, and rigorous curriculum, with access to the most innovative methodologies and guidance from experts in the field, enabling educators to develop pioneering projects.

With this 100% online university degree, you will acquire advanced competencies in educational research, using innovative analytical tools"

Educational Research is the driving force behind pedagogical evolution, enabling the design of evidence-based strategies to optimize learning and teaching. Currently, the rise of digitalization and data analysis has transformed the way educational processes are evaluated, increasing the demand for professionals with advanced research skills. In fact, the Ministry of Education and Vocational Training has emphasized the importance of strengthening teaching research as a key avenue to improve the educational system.

In this context, educators and education professionals face the challenge of enhancing their analytical and methodological skills to meet the sector's demands. For this reason, TECH has developed this Professional Master's Degree in Educational Research, a rigorous and updated academic experience that delves into the most innovative trends in the research field.

Throughout this academic journey, graduates will explore qualitative and quantitative methodologies applied to education, as well as advanced data analysis techniques and pedagogical evaluation. The most commonly used digital tools in educational research will also be addressed, allowing educators and professionals to design projects with a real impact on teaching. In this way, graduates will be prepared to lead studies in academic institutions, develop effective evaluation models, and contribute to educational innovation with an evidence-based approach.

At the same time, this degree is offered with a 100% online methodology, allowing educators and professionals to balance their learning with their professional and personal responsibilities. All content is available 24/7, accessible from any device and downloadable for reference. Additionally, this university program includes the Relearning learning system, which guarantees effective assimilation of concepts through the strategic repetition of key knowledge.

This **Professional Master's Degree in Educational Research** contains the most complete and up-to-date educational program on the market. Its most notable features are:

- The development of practical cases presented by experts in Educational Research
- 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
- Practical exercises where the self-assessment process can be carried out to improve learning
- Special emphasis on innovative methodologies in Educational Research
- 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

Develop advanced competencies in Educational Research, applying cutting-edge analytical models and guiding future researchers in the academic field"

You will reach your full potential in educational research with the help of multimedia resources such as interactive summaries, explanatory videos, and specialized readings"

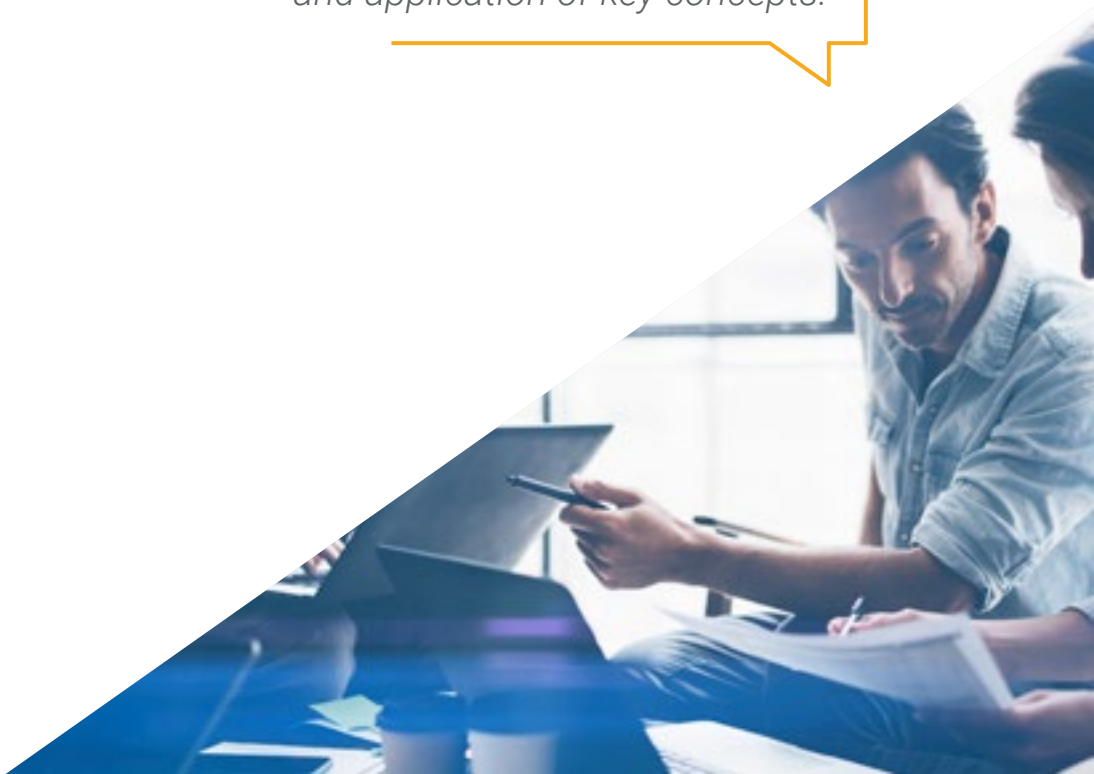
You will efficiently explore educational analysis models, allowing you to foresee and address various current pedagogical challenges.

You will have access to a learning system based on repetition, with natural and progressive teaching throughout the curriculum, optimizing your understanding and application of key concepts.

The faculty includes professionals from the field of Educational Research, who bring their work experience into the program, alongside recognized specialists from leading organizations 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 an immersive learning experience designed to prepare for real-life situations.

This program is designed around Problem-Based Learning, whereby the student must try to solve the different professional practice situations that arise throughout the program. For this purpose, the professional will be assisted by an innovative interactive video system created by renowned and experienced experts.



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Why Study at TECH?

TECH is the world's largest online university. With an impressive catalog of more than 14,000 university programs, available in 11 languages, it is positioned as a leader in employability, with a 99% job placement rate. In addition, it has a huge faculty of more than 6,000 professors of the highest international prestige.

Study at the largest online university in the world and ensure your professional success. The future begins at TECH”

The world's best online university, according to FORBES

The prestigious Forbes magazine, specialized in business and finance, has highlighted TECH as "the best online university in the world" This is what they have recently stated in an article in their digital edition in which they echo the success story of this institution, "thanks to the academic offer it provides, the selection of its teaching staff, and an innovative learning method oriented to form the professionals of the future".

The best top international faculty

TECH's faculty is made up of more than 6,000 professors of the highest international prestige. Professors, researchers and top executives of multinational companies, including Isaiah Covington, performance coach of the Boston Celtics; Magda Romanska, principal investigator at Harvard MetaLAB; Ignacio Wistumba, chairman of the department of translational molecular pathology at MD Anderson Cancer Center; and D.W. Pine, creative director of TIME magazine, among others.

The world's largest online university

TECH is the world's largest online university. We are the largest educational institution, with the best and widest digital educational catalog, one hundred percent online and covering most areas of knowledge. We offer the largest selection of our own degrees and accredited online undergraduate and postgraduate degrees. In total, more than 14,000 university programs, in ten different languages, making us the largest educational institution in the world.

The most complete syllabuses on the university scene

TECH offers the most complete syllabuses on the university scene, with programs that cover fundamental concepts and, at the same time, the main scientific advances in their specific scientific areas. In addition, these programs are continuously updated to guarantee students the academic vanguard and the most demanded professional skills. and the most in-demand professional competencies. In this way, the university's qualifications provide its graduates with a significant advantage to propel their careers to success.

A unique learning method

TECH is the first university to use Relearning in all its programs. This is the best online learning methodology, accredited with international teaching quality certifications, provided by prestigious educational agencies. In addition, this innovative academic model is complemented by the "Case Method", thereby configuring a unique online teaching strategy. Innovative teaching resources are also implemented, including detailed videos, infographics and interactive summaries.

The official online university of the NBA

TECH is the official online university of the NBA. Thanks to our agreement with the biggest league in basketball, we offer our students exclusive university programs, as well as a wide variety of educational resources focused on the business of the league and other areas of the sports industry. Each program is made up of a uniquely designed syllabus and features exceptional guest hosts: professionals with a distinguished sports background who will offer their expertise on the most relevant topics.

Leaders in employability

TECH has become the leading university in employability. Ninety-nine percent of its students obtain jobs in the academic field they have studied within one year of completing any of the university's programs. A similar number achieve immediate career enhancement. All this thanks to a study methodology that bases its effectiveness on the acquisition of practical skills, which are absolutely necessary for professional development.

Google Premier Partner

The American technology giant has awarded TECH the Google Premier Partner badge. This award, which is only available to 3% of the world's companies, highlights the efficient, flexible and tailored experience that this university provides to students. The recognition not only accredits the maximum rigor, performance and investment in TECH's digital infrastructures, but also places this university as one of the world's leading technology companies.

The top-rated university by its students

Students have positioned TECH as the world's top-rated university on the main review websites, with a highest rating of 4.9 out of 5, obtained from more than 1,000 reviews. These results consolidate TECH as the benchmark university institution at an international level, reflecting the excellence and positive impact of its educational model.

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Syllabus

This university program from TECH aims to provide a comprehensive and advanced understanding of Educational Research. Throughout the program, professionals will develop skills in designing qualitative and quantitative studies, mastering data collection and analysis techniques. They will also acquire competencies in the use of specialized computer tools, applied to pedagogical evaluation and the improvement of educational processes. In this way, they will optimize teaching methodologies and promote inclusive, equitable, and creative models in diverse educational environments.

You will delve into research methodologies, using advanced computer tools for data analysis and interpretation in the educational field"

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 Process of Research: 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 (I): Frequency Distribution and Frequency Polygon
- 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 (II): Position Indexes and Dispersion Indicators
- 1.4.1. Introduction
- 1.4.2. Variables and Types
- 1.4.3. Position or Central Tendency Indices 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 Shape of Distribution Index
- 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 (EDA)
- 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

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 Hypothesis Testing
- 1.10.5. Type I and II Errors

Module 2. Experimental Research: Design as a Model

2.1. Experimental Method
- 2.1.1. Introduction
- 2.1.2. Approaches or Paradigms from Educational Research
- 2.1.3. Concept of Experimental Research
- 2.1.4. Types of Research
- 2.1.5. Research Approach
- 2.1.6. Quality of Research: Kerlinger Principle (Max-Min-Con)
- 2.1.7. Experimental Validity of an Investigation

2.2. Experimental Design in Research
- 2.2.1. Introduction
- 2.2.2. Types of Experimental Designs: Pre-experimental, Experimental, and Quasi-experimental
- 2.2.3. Experimental Control
  - 2.2.3.1. Controlling Variables
  - 2.2.3.2. Control Techniques
  - 2.2.3.3. Experimental Designs: Between-Group and within-Subject Design
  - 2.2.3.4. Analysis of Data: Statistical Techniques

2.3. Experimental Design with Different Groups of Subjects
- 2.3.1. Introduction
- 2.3.2. Approaches or Paradigms from Educational Research
- 2.3.3. Concept of Experimental Research
- 2.3.4. Types of Research
- 2.3.5. Research Approach
- 2.3.6. Quality of a Research, Kerlinger's Principle (Max-Min-Con)
- 2.3.7. The Validity of an Investigation

2.4. Experimental Design with the Same Subjects
- 2.4.1. Introduction
- 2.4.2. Student's T-test with the Same Subjects
- 2.4.3. Non-parametric Contrasts for Two Related Samples Wilcoxon Test
- 2.4.4. Non-parametric Contrasts for Two Related Samples: Friedman Test

2.5. One-factor Completely Randomized Experimental Design
- 2.5.1. Introduction
- 2.5.2. The general Linear Model
- 2.5.3. Anova Models
- 2.5.4. One-factor, Fixed-effects, Completely Randomized Anova (A-FE-CR)
  - 2.5.4.1. The Model
  - 2.5.4.2. The Assumptions
  - 2.5.4.3. The Contrast Statistic
- 2.5.5. Measures of Effect Size
- 2.5.6. Multiple Comparisons Between Measurements
  - 2.5.6.1. What are Multiple Comparisons?
  - 2.5.6.2. A Priori Planned Comparisons
  - 2.5.6.3. Ex-post Planned Comparisons

2.6. One-factor Experimental Design with Repeated Measures
- 2.6.1. Introduction
- 2.6.2. One-factor, Fixed-effects, Completely Randomized Anova (A-FE-CR)
- 2.6.3. Measures of Effect Size
- 2.6.4. Multiple Comparisons
  - 2.6.4.1. Planned Orthogonal Comparisons: Planned F Tests

2.7. Completely Randomized Two-Factor Experimental Design
- 2.7.1. Introduction
- 2.7.2. Two-factor, Fixed-effect, Completely Randomized Anova (AB-FE-CA)
- 2.7.3. Measures of Effect Size
- 2.7.4. Multiple Comparisons

2.8. One-factor Experimental Design with Repeated Measures
- 2.8.1. Introduction
- 2.8.2. Two-Factor ANOVA with Fixed Effects, with Repeated Measures in Both Factors
- 2.8.3. Multiple Comparisons
- 2.8.4. Two-factor, Fixed-effects, Anova with Repeated Measures on a Single Factor
- 2.8.5. Multiple Comparisons

2.9. Block Experimental Design
- 2.9.1. Introduction
- 2.9.2. Characteristics of Block Designs
- 2.9.3. Additional Variables to the Factor: Blocking Factor
- 2.9.4. One-factor Blocking Design: Completely Randomized Blocking
- 2.9.5. Two-factor Blocking Design: Latin Square Blocking

2.10. Experimental Design with Covariate Variables
- 2.10.1. Introduction
- 2.10.2. ANCOVA design
  - 2.10.2.1. Covariate Variables to Reduce the Error Term
  - 2.10.2.2. Covariate Variables to Control Extraneous Variables
- 2.10.3. Why Include a Covariate Variable in the Design?
- 2.10.4. Blocking and ANCOVA

2.11. Single Case Experimental Design (N=1)
- 2.11.1. Introduction
- 2.11.2. Basic Structure of Single-case Designs
  - 2.11.2.1. Elaboration of Multiple Items
  - 2.11.2.2. Difficulty Index, Discrimination Index, Validity Index
  - 2.11.2.3. Analysis of Distractor Items
- 2.11.3. Treatment Study in Single Case Design
  - 2.11.3.1. Visual Data Analysis
- 2.11.4. Basic Model: A-B
- 2.11.5. A-B-A Design
- 2.11.6. Criteria Change Design
- 2.11.7. Multiple Baseline Design

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

3.1. Introduction
- 3.1.1. Qualitative Research Methodology
- 3.1.2. Qualitative Research Techniques
- 3.1.3. Phases of Qualitative Research

3.2. Observation
- 3.2.1. Introduction
- 3.2.2. Observation Categories
- 3.2.3. Types of Observation: Ethnographic, Participant and Non-participant
- 3.2.4. What, How and When to Observe?
- 3.2.5. Ethical Considerations of Observation
- 3.2.6. Content Analysis

3.3. Interview Techniques
- 3.3.1. Introduction
- 3.3.2. Interview Concept
- 3.3.3. Interview Characteristics
- 3.3.4. The Purpose of the Interview
- 3.3.5. Types of Interviews
- 3.3.6. Advantages and Disadvantages of the Interview

3.4. Discussion Group and Focus Group Techniques
- 3.4.1. Introduction
- 3.4.2. Discussion Groups
- 3.4.3. Objectives that Can Be Considered: Advantages and Disadvantages
- 3.4.4. Issues for Discussion

3.5. SWOT and DELPHI Technique
- 3.5.1. Introduction
- 3.5.2. Characteristics of Both Techniques
- 3.5.3. SWOT Technique
- 3.5.4. The Delphi Technique.
  - 3.5.4.1. Preliminary Tasks Before Starting a DELPHI

3.6. Life History Method
- 3.6.1. Introduction
- 3.6.2. Life History
- 3.6.3. Method Characteristics
- 3.6.4. Types
- 3.6.5. Phases

3.7. The Field Diary Method
- 3.7.1. Introduction
- 3.7.2. Concept of Field Diary
- 3.7.3. Field Diary Characteristics
- 3.7.4. Structure of the Field Diary

3.8. Discourse and Image Analysis Technique
- 3.8.1. Introduction
- 3.8.2. Characteristics
- 3.8.3. Discourse Analysis Concept
- 3.8.4. Discourse Analysis Types
- 3.8.5. Levels of Discourse
- 3.8.6. Image Analysis

3.9. The Case Study Method
- 3.9.1. Introduction
- 3.9.2. Concept of Case Studies
- 3.9.3. Types of Cases Study
- 3.9.4. Design of the Cases Study

3.10. Classification and Analysis of Qualitative Data
- 3.10.1. Introduction
- 3.10.2. Categorization of Data
- 3.10.3. Data Coding
- 3.10.4. Theorizing Data
- 3.10.5. Data Triangulation
- 3.10.6. Exposure of Data
- 3.10.7. Writing Analytical Reflections. *Memoing*

Module 4. Computational Resources for Educational Research

4.1. Documentary Resources in Educational Research
- 4.1.1. Introduction
- 4.1.2. Introduction of Documentary Resources in Educational Research
- 4.1.3. Dissemination and Communication of Scientific-Academic Information
- 4.1.4. Academic Scientific Language
- 4.1.5. Access to Information: Bibliographic Databases

4.2. Information Search and Retrieval
- 4.2.1. Introduction
- 4.2.2. Search for Information
- 4.2.3. Information Search Strategies: Interfaces
- 4.2.4. Search for Electronic Journals
- 4.2.5. Bibliographic Databases

4.3. Access to Information Sources
- 4.3.1. Introduction
- 4.3.2. Databases
- 4.3.3. Electronic Magazines
- 4.3.4. Institutional Repositories
- 4.3.5. Scientific Social Networks
- 4.3.6. Information Managers

4.4. Thesauri
- 4.4.1. Introduction
- 4.4.2. Concept of Thesaurus
- 4.4.3. Characteristics of Thesaurus
- 4.4.4. Terminology of Thesaurus

4.5. Thesauri: Use of the Database
- 4.5.1. Introduction
- 4.5.2. Thesaurus Nomenclature
- 4.5.3. Thesaurus Hierarchy
- 4.5.4. Database

4.6. Information Evaluation Criteria
- 4.6.1. Introduction
- 4.6.2. Criteria for Evaluating Bibliographic Sources
- 4.6.3. Bibliometric Indicators
- 4.6.4. Book Evaluation and Publisher Ranking

4.7. Communication of Information
- 4.7.1. Introduction
- 4.7.2. Academic Scientific Language
- 4.7.3. Communication of Information
- 4.7.4. The Scientific Publication Process

4.8. SPSS (I)-Statistical Computing Tool Quantitative Data
- 4.8.1. Introduction
- 4.8.2. Introduction to SPSS
- 4.8.3. Structure of SPSS
- 4.8.4. How to Handle Data Files?

4.9. SPSS (II)- Descriptive Analysis of Variables
- 4.9.1. Introduction
- 4.9.2. Menu Bar and SPSS tools
- 4.9.3. Create New Files
- 4.9.4. How to Define a Variable?

4.10. Computer Resources, Qualitative Data
- 4.10.1. Introduction
- 4.10.2. Programs and Resources for Qualitative Data Collection
- 4.10.3. Computer Resources for Analyzing Qualitative Data
- 4.10.4. Other Programs for Information Analysis

Module 5. Data Collection Techniques and Instruments and Measurement

5.1. Measurement in Research
- 5.1.1. Introduction
- 5.1.2. What do we Want to Measure?
- 5.1.3. Subject Measurement Process
- 5.1.4. Psychometry

5.2. Collection of Information using Quantitative Techniques: Observation and Surveys
- 5.2.1. Introduction
- 5.2.2. Observation
  - 5.2.2.1. Theoretical Framework and Categories of Observation
- 5.2.3. The Survey
  - 5.2.3.1. Material for Conducting a Survey
  - 5.2.3.2. Survey Research Design

5.3. Collection of Information with Quantitative Techniques: The Tests
- 5.3.1. Introduction
- 5.3.2. Test Concept
- 5.3.3. Item Generation Process
- 5.3.4. Testing by Area: Performance; Intelligence and Aptitude; Personality, Attitudes and Interests

5.4. Collection of Information with Quantitative Techniques: Scaling Methods
- 5.4.1. Introduction
- 5.4.2. Concept of Attitude Scales
- 5.4.3. Thurstone Method
  - 5.4.3.1. Method of Paired Comparisons
- 5.4.4. Likert Scale
- 5.4.5. Guttman Scale

5.5. Test Construction Process
- 5.5.1. Introduction
- 5.5.2. Item Scaling Process
  - 5.5.2.1. Item Generation Process
  - 5.5.2.2. Information Gathering Process
  - 5.5.2.3. Scaling Process in the Strict Sense
- 5.5.3. Scale Evaluation Process
  - 5.5.3.1. Item Analysis
  - 5.5.3.2. Scale Dimension
  - 5.5.3.3. Scale Reliability
  - 5.5.3.4. Scale Validity
- 5.5.4. Subjects' Scores on the Scale

5.6. Analysis of Test Items
- 5.6.1. Introduction
- 5.6.2. Classical Test Theory (Spearman, 1904)
- 5.6.3. Test Reliability
- 5.6.4. The Concept of Validity
- 5.6.5. Evidence of Validity

5.7. Reliability of the Instrument
- 5.7.1. Introduction
- 5.7.2. Definition of Reliability
- 5.7.3. Reliability by Test-Retest or Repeatability Method
- 5.7.4. Reliability by the Alternate or Parallel Shape Method
- 5.7.5. Reliability Through Internal Consistency Coefficients
  - 5.7.5.1. Coeficiente de Kuder-Richardson
  - 5.7.5.2. Cronbach's Alpha Coefficient

5.8. Validity of the Instrument
- 5.8.1. Introduction
- 5.8.2. Definition of Validity
- 5.8.3. Validity of the Instruments
  - 5.8.3.1. Immediate Validity
  - 5.8.3.2. Content Validity
  - 5.8.3.3. Construct Validity
  - 5.8.3.4. Contrast Validity
- 5.8.4. Validity Strategies

5.9. Item Analysis
- 5.9.1. Introduction
- 5.9.2. Item Analysis
- 5.9.3. Difficulty and Validity Indexes
- 5.9.4. Correction of Random Effects

5.10. Interpretation of Test Scores
- 5.10.1. Introduction
- 5.10.2. Interpretation of Scores
- 5.10.3. Normative Test Scales
- 5.10.4. Typical Derived Baremos
- 5.10.5. Interpretations Referring to the Criterion

Module 6. Item Response Theory (IRT)

6.1. Item Response Theory (IRT)
- 6.1.1. Introduction
- 6.1.2. Measurement Models
- 6.1.3. Fundamental Concepts of IRT
- 6.1.4. Basic Postulates of IRT

6.2. Generalizability Theory (GT)
- 6.2.1. Introduction
- 6.2.2. Generalizability Theory (GT)
- 6.2.3. Facets of Generalizability Theory
- 6.2.4. Interpretation of Results in a Study

6.3. Characteristics of IRT (I)
- 6.3.1. Introduction
- 6.3.2. Historical Introduction of TRI
- 6.3.3. IRT Assumptions
- 6.3.4. IRT models

6.4. Characteristics of IRT (II)
- 6.4.1. Introduction
- 6.4.2. TRI Results
  - 6.4.2.1. Parameters
  - 6.4.2.2. Item Characteristic Curve
  - 6.4.2.3. True Score
  - 6.4.2.4. Test Characteristic Curve
  - 6.4.2.5. Level of Information
- 6.4.3. Response Models: the Item Characteristic Curve
- 6.4.4. Question Selection Methods

6.5. Response Models for Dichotomous Items: the Rasch Contribution
- 6.5.1. Introduction
- 6.5.2. The Rasch Model
- 6.5.3. Characteristics of the Rasch Model
- 6.5.4. Example (Rasch Model)

6.6. Response Models for Dichotomous Items: the Rasch Contribution
- 6.6.1. Introduction
- 6.6.2. Birnbaum's Logistic Model (1968)
- 6.6.3. Model Parameters
  - 6.6.3.1. 2-parameter Logistic Model
  - 6.6.3.2. 3-parameter Logistic Model
  - 6.6.3.3. 4-parameter Logistic Model

6.7. Response Models for Polytomous Items: Nominal Item Models (Block, 1972)
- 6.7.1. Introduction
- 6.7.2. Polytomous Items
- 6.7.3. Nominal Response Models (Block, 1972)
- 6.7.4. Political Item Parameters

6.8. Response Models for Polytomous Items: Ordinal Item Models
- 6.8.1. Introduction
- 6.8.2. Ordinal Item Models
- 6.8.3. Ordinal Cumulative Model
  - 6.8.3.1. Samejima's Graded Response Model (GRM) (1969)
  - 6.8.3.2. Modified Graded Response Model (M-GRM) of Muraki (1990)
- 6.8.4. Continuous Ordinal Models
  - 6.8.4.1. Sequential Model (Tutz, 1990)
- 6.8.5. Adjacent Ordinal Models
  - 6.8.5.1. Partial Credit Model (Masters, 1982)

6.9. Response Model for Polytomous Items: Samejima's Graded Response Model (1969)
- 6.9.1. Introduction
- 6.9.2. Normal Graded Response Model
- 6.9.3. Graded Response Logistic Model
- 6.9.4. Example (Graded Response Model)

6.10. Differential Item Functioning (DIF)
- 6.10.1. Introduction
- 6.10.2. Concept of Differential Item Functioning (DIF)
- 6.10.3. Types of DIF
- 6.10.4. Methods for Detecting DIF
- 6.10.5. Purification Methods

Module 7. Multivariate Analysis

7.1. Multivariate Analysis
- 7.1.1. Introduction
- 7.1.2. What is Multivariate Analysis?
- 7.1.3. The objectives of Multivariate Analysis
- 7.1.4. Classification of Multivariate Techniques

7.2. Multiple Linear Regression
- 7.2.1. Introduction
- 7.2.2. Concept of Multiple Linear Regression
- 7.2.3. Conditions for Multiple Linear Regression
- 7.2.4. Predictors to Generate the Best Model

7.3. Binary Logistic Regression
- 7.3.1. Introduction
- 7.3.2. Binary Logistic Regression Concept
- 7.3.3. Model adjustment
  - 7.3.3.1. Model fitting in R
- 7.3.4. Stages of the R
- 7.3.5. Example (Binary Logistic Regression)

7.4. Nominal and Ordinal Logistic Regression
- 7.4.1. Introduction
- 7.4.2. General review of Nominal Logistic Regression
- 7.4.3. Example (Nominal Logistic Regression)
- 7.4.4. General review of Ordinal Logistic Regression
- 7.4.5. Example (Ordinal Logistic Regression)

7.5. Poisson Regression
- 7.5.1. Introduction
- 7.5.2. Poisson Concept
- 7.5.3. Distribution Functions
- 7.5.4. Poisson Regression with Counts

7.6. Log-Linear Models
- 7.6.1. Introduction
- 7.6.2. Log-Linear Models for Contingency Tables
- 7.6.3. Log-Linear Models for Contingency Tables
- 7.6.4. Example (Log-Linear Models for Contingency Tables)

7.7. Discriminant Analysis
- 7.7.1. Introduction
- 7.7.2. Concept of Discriminant Analysis
- 7.7.3. Classification with Two Groups
  - 7.7.3.1. Fisher Discriminant Function
- 7.7.4. Example (Discriminant Analysis)

7.8. Cluster Analysis
- 7.8.1. Introduction
- 7.8.2. Concept of K-means Clusters
- 7.8.3. Hierarchical Cluster Analysis Concept
- 7.8.4. Example (Hierarchical Cluster Analysis)

7.9. Multidimensional scaling
- 7.9.1. Introduction
- 7.9.2. Multidimensional Scaling: Basic Concepts
- 7.9.3. The Similarity Matrix
- 7.9.4. Classification of Scaling Techniques

7.10. Factor Analysis
- 7.10.1. Introduction
- 7.10.2. When is Factor Analysis Used?
- 7.10.3. Factor Analysis Methodology
- 7.10.4. Applications of Factor Analysis

Module 8. Thesis and Scientific Research Project Supervision, University Student Guidance

8.1. Motivating University Students to Get Involved in Research
- 8.1.1. Introduction to Investigative Practice
- 8.1.2. Gnoseology or Theory of Knowledge
- 8.1.3. Scientific Research and its Foundations
- 8.1.4. Research-Oriented Motivation

8.2. Basic Student Training for Research Activity
- 8.2.1. Initiation in Research Methods and Techniques
- 8.2.2. Elaboration of Quotes and Bibliographic References
- 8.2.3. The Use of New Technologies in Information Searching and Management
- 8.2.4. The research report: structure, characteristics and preparation standards

8.3. Requirements for the Management of Research Projects
- 8.3.1. Initial Guidance for Research Practice
- 8.3.2. Responsibilities in the Supervision of Theses and Research Projects
- 8.3.3. Introduction to Scientific Literature

8.4. The Approach to the Topic and the Study of the Theoretical Framework
- 8.4.1. The Research Topic
- 8.4.2. Objectives of the Research
- 8.4.3. Document Sources and Research Techniques
- 8.4.4. Structure and Boundaries of the Theoretical Framework

8.5. Research Designs and the Hypothesis System
- 8.5.1. Types of Studies in Research
- 8.5.2. Research Designs
- 8.5.3. Hypothesis: Types and Characteristics
- 8.5.4. Variables in Research

8.6. Research Methods, Techniques and Instruments
- 8.6.1. Population and Sample
- 8.6.2. Sampling
- 8.6.3. Methods, Techniques and Instruments

8.7. Planning and Supervision of Student Activity
- 8.7.1. Research Plan Development
- 8.7.2. Research Activity Document
- 8.7.3. Schedule of Activities
- 8.7.4. Tracking and Monitoring of Students

8.8. Supervision of Scientific Research Projects
- 8.8.1. Promoting Research Activity
- 8.8.2. Encouragement and Creation of Opportunities for Enrichment
- 8.8.3. Resources and Presentation Techniques

8.9. The Management of Master's Theses and Doctoral Dissertations
- 8.9.1. Supervision of Master's Theses and Doctoral Dissertations as a Pedagogical Practice
- 8.9.2. Mentoring and Career Planning
- 8.9.3. Characteristics and Structures of Master's Theses
- 8.9.4. Characteristics and Structure of Doctoral Dissertations

8.10. Commitment to the Dissemination of Research Results: The True Impact of Scientific Research
- 8.10.1. Instrumentalization of Research Work
- 8.10.2. Toward a Meaningful Impact of Research Activity
- 8.10.3. Byproducts of Research Projects
- 8.10.4. Dissemination and Communication of Knowledge

Module 9. Innovation, Diversity and Equity in Education

9.1. What Do We Mean by Educational Innovation?
- 9.1.1. Definition
- 9.1.2. Why is Educational Innovation Important?
- 9.1.3. How Can We Be Innovative?
- 9.1.4. Should We Be Innovative?

9.2. Diversity, Equity and Equal Opportunity
- 9.2.1. Definition of Concepts
- 9.2.2. Three Essential Elements in Education

9.3. Innovation and Educational Improvement
- 9.3.1. Innovation Process
- 9.3.2. Efficiency and Educational Improvement

9.4. Innovation for Achieving Equality in Education
- 9.4.1. How to Explain Equality
- 9.4.2. Equality in Education: A Persistent Problem
- 9.4.3. Factors for Achieving Equality in the Classroom: Examples in the Classroom

9.5. Non-Sexist Teaching and Language
- 9.5.1. What is Non-Sexist Language?
- 9.5.2. What is Sexism in Language?
- 9.5.3. What is Inclusive Language?
- 9.5.4. Examples of Sexist and Non-Sexist Language in Education

9.6. Factors that Favor and Hinder Innovation
- 9.6.1. Factors that Favor Innovation
- 9.6.2. Factors that Hinder Innovation

9.7. Characteristics of Innovative Schools
- 9.7.1. What is an Innovative School?
- 9.7.2. Innovative Schools, a Different Education
- 9.7.3. Elements of an Innovative School
- 9.7.4. The Keys to an Innovative Classroom

9.8. Process of Educational Innovation
- 9.8.1. The 21st Century School

9.9. Resources and Innovation Teaching Programs
- 9.9.1. Distinct Innovation Programs Which Can Be Used in the Classroom
- 9.9.2. Teaching Resources for an Innovative Classroom

9.10. Emerging Fields in the Teaching
- 9.10.1. Emerging Pedagogies
- 9.10.2. Emerging Needs of Students
- 9.10.3. ICT as an Emerging Resource in Teaching
- 9.10.4. Different ICT Tools to Use in the Classroom

Module 10. Talent, Vocation, and Creativity

10.1. Talent and its Educational Importance
- 10.1.1. Talent
- 10.1.2. Components
- 10.1.3. Talent is Diverse
- 10.1.4. Measuring and Discovering Talent
- 10.1.5. Gallup Test
- 10.1.6. GARP Test
- 10.1.7. CareerScope
- 10.1.8. MBTI
- 10.1.9. Success DNA

10.2. Talent and Key Competencies
- 10.2.1. Key Competencies Paradigm
- 10.2.2. Key Competencies
- 10.2.3. The Role of the Intelligences
- 10.2.4. Knowledge: Uses and Abuses in Education
- 10.2.5. The importance of Skills
- 10.2.6. The Differentiating Factor of Attitude
- 10.2.7. Relationship between Talent and Key Competencies

10.3. Talent Development
- 10.3.1. Learning Modalities. Richard Felder
- 10.3.2. The Element
- 10.3.3. Talent Development Procedures
- 10.3.4. Mentor Dynamics
- 10.3.5. Talent and Educational Approach

10.4. Motivation Mechanisms
- 10.4.1. Needs, Desires and Motivations
- 10.4.2. Decision Making
- 10.4.3. Executive Capabilities
- 10.4.4. Procrastination
- 10.4.5. Duty, Love and Pleasure in Education
- 10.4.6. Emotional Habits for Motivation
- 10.4.7. Motivational Beliefs
- 10.4.8. Values for Motivation

10.5. Vocation, Meaning and Purpose
- 10.5.1. The Importance of Vocation
- 10.5.2. Meaning and Purpose
- 10.5.3. Vision, Mission, Commitment
- 10.5.4. Exploring Vocation
- 10.5.5. Teaching Vocation
- 10.5.6. Educating for Vocation

10.6. Towards a Definition of Creativity
- 10.6.1. Creativity
- 10.6.2. Brain Functioning and Creativity
- 10.6.3. Intelligences, Talents and Creativity
- 10.6.4. Emotions and Creativity
- 10.6.5. Beliefs and Creativity
- 10.6.6. Divergent Thinking
- 10.6.7. Convergent Thinking
- 10.6.8. The Creative Process and Its Phases
- 10.6.9. Disney Dynamics

10.7. Why Creativity?

10.7.1. Arguments in Favor of Creativity Today
10.7.2. Personal Creativity for Life
10.7.3. Creativity in Art
10.7.4. Creativity for Problem Solving
10.7.5. Creativity for Professional Development
10.7.6. Creativity in the Coaching Process

10.8. Creativity Development
10.8.1. Conditions for Creativity
10.8.2. Artistic Disciplines as Precursors of Creativity
10.8.3. The Art Therapy Approach
10.8.4. Creativity Applied to Challenges and Problem Solving
10.8.5. Relational Thinking
10.8.6. Edward de Bono's Hats

10.9. Creativity as a Value in Education
10.9.1. The Need to Encourage Creativity in Education
10.9.2. Active Methodologies and Novelty
10.9.3. Educational Models that Value Creativity
10.9.4. Means, Times and Spaces to Apply Creativity in the Classroom
10.9.5. Disruptive Education
10.9.6. Visual Thinking
10.9.7. Design Thinking

10.10. Creative Techniques
10.10.1. Relational Thinking Techniques
10.10.2. Techniques for Generating Ideas
10.10.3. Techniques for Evaluating Ideas
10.10.4. Exercises of Ingenuity
10.10.5. Artistic Disciplines for Creative Development
10.10.6. RCS Method
10.10.7. Other Techniques and Methods

04

Teaching Objectives

The goal of this high-level university degree is to equip education professionals with the skills to develop rigorous research applied to the pedagogical field. Graduates will acquire advanced skills in designing and conducting educational studies, mastering both qualitative and quantitative methodologies. Additionally, they will develop competencies in using specialized computer tools for data analysis, evaluating pedagogical models, and measuring educational impact. With a focus on innovation and equity, they will be prepared to lead research projects that contribute to improving the educational system.

You will develop competencies by applying advanced methodologies to measure the impact of teaching strategies and promote continuous improvement in education"

General Objectives

- Enable professionals to practice Educational Research
- Learn to implement specific programs for improving school performance
- Access the methods and processes of research in Education within the school environment
- Analyze and integrate the necessary knowledge to promote the academic and social development of students

You will delve into specialized techniques in Item Response Theory and Multivariate Analysis to accurately assess academic performance"

Specific Objectives

Module 1. Fundamentals, Processes and Methods in Research

- Determine the elements and sequence to follow in the methodological design of educational research to frame it within the scientific procedure
- Understand and work with basic concepts in descriptive statistics
- Acquire skills to interpret a frequency table, bar chart, and some descriptive indices
- Acquire skills to interpret contingency tables as a tool for descriptive analysis of the relationship between variables

Module 2. Experimental Research: Design as a Model

- Understand and apply scientific experimental methodology in research
- Know how to carry out an experimental research study, following its phases and approach
- Differentiate between various experimental designs and apply them correctly
- Analyze and contrast the data obtained in the empirical domain accurately

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

- Understand techniques for categorizing, analyzing, and summarizing qualitative information
- Understand the quality of the instruments used
- Appropriately record information obtained through observation techniques
- Understand the ethics of qualitative information

Module 4. Computational Resources for Educational Research

- Apply criteria for evaluating information
- Understand the process of scientific publication
- Communicate and disseminate information
- Manage computational resources for quantitative data
- Manage computational resources for qualitative data

Module 5. Data Collection Techniques and Instruments and Measurement

- Learn basic psychometric concepts
- Understand the research process
- Acquire skills for collecting information using quantitative techniques
- Acquire knowledge for the process of creating instruments

Module 6. Item Response Theory (IRT)

- Understand IRT for creating and studying the data collection instrument
- Introduce students to the basic concepts of IRT
- Understand the different models for item analysis
- Know how to apply the different models for item analysis
- Analyze the quality of measurement instruments using IRT assumptions
- Apply this theory to other educational measurement processes

Module 7. Multivariate Analysis

- Familiarize yourself with Multivariate Analysis
- Understand the models, techniques, and procedures that study the interrelationships between variables
- Be able to describe the behavior pattern of the observed variables
- Study the differences between groups
- Interpret contingency tables
- Know how to apply techniques that encompass multivariate interdependence models

Module 8. Thesis and Scientific Research Project Supervision, University Student Guidance

- Acquire the resources to carry out effective, engaging, and motivating guidance work
- Discover the importance of motivation and guidance for students interested in research

Module 9. Innovation, Diversity and Equity in Education

- Focus on knowledge in innovation, diversity, and equity in education
- Learn how to implement educational innovation plans in your respective schools and classrooms

Module 10. Talent, Vocation, and Creativity

- Identify what talent is
- List the characteristics of talent

05

Career Opportunities

Upon completing this unique academic opportunity, graduates will stand out for their solid understanding of the fundamentals of Educational Research. Graduates will incorporate the most sophisticated techniques into their daily practice to design academic projects with scientific rigor. In this way, professionals will generate relevant knowledge to continually improve the educational system. As such, experts will contribute to the development of evidence-based educational policies, optimizing pedagogical practices and promoting a lasting impact on student learning.

You will lead rigorous Educational Research processes that contribute to the creation of new methodological approaches"

Graduate Profile

Professionals who complete this university program will acquire advanced skills in data analysis and the evaluation of pedagogical models. They will also gain competencies in designing innovative studies, applying cutting-edge qualitative and quantitative methodologies. Moreover, they will excel in interpreting educational trends and generating evidence-based strategies to optimize classroom learning. Their versatile profile will enable them to lead research projects, advise academic institutions, and participate in developing policies that promote quality, equity, and innovation in the educational system.

You will handle the most modern tools to apply qualitative approaches in Educational Research, adapting to different contexts and study needs.

- **Educational Research Design:** Ability to develop advanced scientific research using qualitative and quantitative methods to address educational challenges
- **Educational Data Analysis:** Skill in using data analysis tools and techniques to evaluate the impact of pedagogical strategies
- **Development of Innovative Pedagogical Models:** Ability to design evidence-based educational models, driving continuous improvement in teaching and learning processes
- **Educational Policy Evaluation:** Ability to analyze and propose improvements in educational policies at the institutional, national, or international levels, based on data analysis and environmental needs.

After completing the university program, you will be able to perform your knowledge and skills in the following positions:

1. **Consultant in Educational Strategies:** Expert advisor in implementing research-based educational models, optimizing academic performance and pedagogical practices in educational institutions.
2. **Educational Policy Specialist:** Responsible for designing and evaluating educational policies that promote the improvement of quality and equity in the educational system, both locally and internationally.
3. **Educational Evaluation Coordinator:** In charge of leading teams to create and execute educational evaluation plans, improving decision-making in academic institutions.
4. **Advisor in Pedagogical Innovation:** Specialist in integrating technologies and innovative pedagogical methodologies to optimize teaching and learning processes at different educational levels.

Do you want to deepen your knowledge in educational research? Master the most effective data analysis techniques with this Professional Master's Degree from TECH"

06

Study Methodology

TECH is the world's first university to combine the **case study** methodology with **Relearning**, a 100% online learning system based on guided repetition.

This disruptive pedagogical strategy has been conceived to offer professionals the opportunity to update their knowledge and develop their skills in an intensive and rigorous way. A learning model that places students at the center of the educational process giving them the leading role, adapting to their needs and leaving aside more conventional methodologies.

TECH will prepare you to face new challenges in uncertain environments and achieve success in your career"

The student: the priority of all TECH programs

In TECH's study methodology, the student is the main protagonist.
The teaching tools of each program have been selected taking into account the demands of time, availability and academic rigor that, today, not only students demand but also the most competitive positions in the market.

With TECH's asynchronous educational model, it is students who choose the time they dedicate to study, how they decide to establish their routines, and all this from the comfort of the electronic device of their choice. The student will not have to participate in live classes, which in many cases they will not be able to attend. The learning activities will be done when it is convenient for them. They can always decide when and from where they want to study.

"At TECH you will NOT have live classes (which you might not be able to attend)"

The most comprehensive study plans at the international level

TECH is distinguished by offering the most complete academic itineraries on the university scene. This comprehensiveness is achieved through the creation of syllabi that not only cover the essential knowledge, but also the most recent innovations in each area.

By being constantly up to date, these programs allow students to keep up with market changes and acquire the skills most valued by employers. In this way, those who complete their studies at TECH receive a comprehensive education that provides them with a notable competitive advantage to further their careers.

And what's more, they will be able to do so from any device, pc, tablet or smartphone.

> *TECH's model is asynchronous, so it allows you to study with your pc, tablet or your smartphone wherever you want, whenever you want and for as long as you want"*

Case Studies and Case Method

The case method has been the learning system most used by the world's best business schools. Developed in 1912 so that law students would not only learn the law based on theoretical content, its function was also to present them with real complex situations. In this way, they could make informed decisions and value judgments about how to resolve them. In 1924, Harvard adopted it as a standard teaching method.

With this teaching model, it is students themselves who build their professional competence through strategies such as Learning by Doing or Design Thinking, used by other renowned institutions such as Yale or Stanford.

This action-oriented method will be applied throughout the entire academic itinerary that the student undertakes with TECH. Students will be confronted with multiple real-life situations and will have to integrate knowledge, research, discuss and defend their ideas and decisions. All this with the premise of answering the question of how they would act when facing specific events of complexity in their daily work.

Relearning Methodology

At TECH, case studies are enhanced with the best 100% online teaching method: Relearning.

This method breaks with traditional teaching techniques to put the student at the center of the equation, providing the best content in different formats. In this way, it manages to review and reiterate the key concepts of each subject and learn to apply them in a real context.

In the same line, and according to multiple scientific researches, reiteration is the best way to learn. For this reason, TECH offers between 8 and 16 repetitions of each key concept within the same lesson, presented in a different way, with the objective of ensuring that the knowledge is completely consolidated during the study process.

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.

A 100% online Virtual Campus with the best teaching resources

In order to apply its methodology effectively, TECH focuses on providing graduates with teaching materials in different formats: texts, interactive videos, illustrations and knowledge maps, among others. All of them are designed by qualified teachers who focus their work on combining real cases with the resolution of complex situations through simulation, the study of contexts applied to each professional career and learning based on repetition, through audios, presentations, animations, images, etc.

The latest scientific evidence in the field of Neuroscience points to the importance of taking into account the place and context where the content is accessed before starting a new learning process. Being able to adjust these variables in a personalized way helps people to remember and store knowledge in the hippocampus to retain it in the long term. This is a model called Neurocognitive context-dependent e-learning that is consciously applied in this university qualification.

In order to facilitate tutor-student contact as much as possible, you will have a wide range of communication possibilities, both in real time and delayed (internal messaging, telephone answering service, email contact with the technical secretary, chat and videoconferences).

Likewise, this very complete Virtual Campus will allow TECH students to organize their study schedules according to their personal availability or work obligations. In this way, they will have global control of the academic content and teaching tools, based on their fast-paced professional update.

"The online study mode of this program will allow you to organize your time and learning pace, adapting it to your schedule"

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

1. Students who follow this method not only achieve the assimilation of concepts, but also a development of their mental capacity, through exercises that assess real situations and the application of knowledge.
2. Learning is solidly translated into practical skills that allow the student to better integrate into the real world.
3. Ideas and concepts are understood more efficiently, given that the example situations are based on real-life.
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.

The university methodology top-rated by its students

The results of this innovative teaching model can be seen in the overall satisfaction levels of TECH graduates.

The students' assessment of the teaching quality, the quality of the materials, the structure of the program and its objectives is excellent. Not surprisingly, the institution became the top-rated university by its students according to the global score index, obtaining a 4.9 out of 5.

Access the study contents from any device with an Internet connection (computer, tablet, smartphone) thanks to the fact that TECH is at the forefront of technology and teaching.

You will be able to learn with the advantages that come with having access to simulated learning environments and the learning by observation approach, that is, Learning from an expert.

As such, the best educational materials, thoroughly prepared, will be available in this program:

Study Material

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

This content is then adapted in an audiovisual format that will create our way of working online, with the latest techniques that allow us to offer you high quality in all of the material that we provide you with.

Practicing Skills and Abilities

You will carry out activities to develop specific competencies and skills in each thematic field. Exercises and activities to acquire and develop the skills and abilities that a specialist needs to develop within the framework of the globalization we live in.

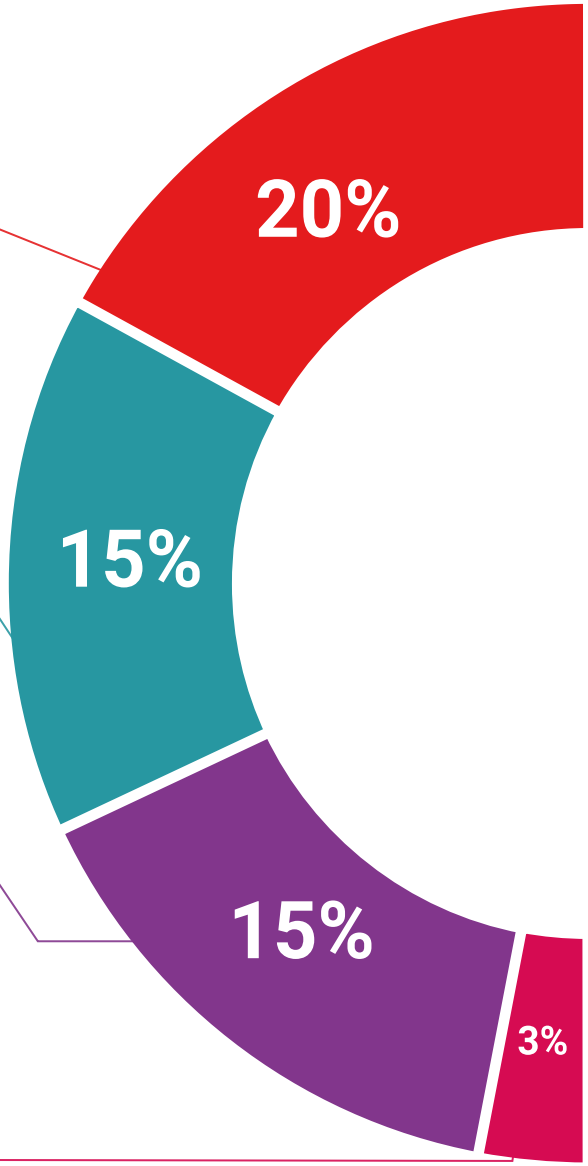
Interactive Summaries

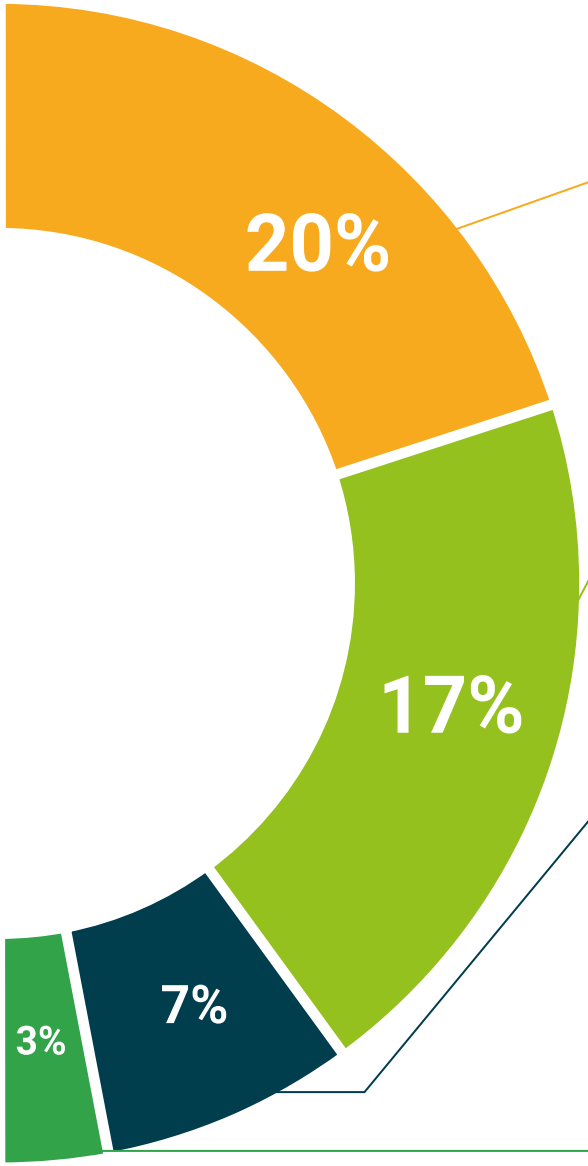
We present the contents attractively and dynamically in multimedia lessons that include audio, videos, images, diagrams, and concept maps in order to reinforce knowledge.

This exclusive educational system for presenting multimedia content was awarded by Microsoft as a "European Success Story".

Additional Reading

Recent articles, consensus documents, international guides... In our virtual library you will have access to everything you need to complete your education.





Case Studies

Students will complete a selection of the best case studies in the field. Cases that are presented, analyzed, and supervised by the best specialists in the world.

Testing & Retesting

We periodically assess and re-assess your knowledge throughout the program. We do this on 3 of the 4 levels of Miller's Pyramid.

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 for 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.

07

Certificate

The Professional Master's Degree in Educational Research guarantees students, in addition to the most rigorous and up-to-date education, access to a diploma for the Professional Master's Degree issued by TECH Global University.

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

This private qualification will allow you to obtain a **Professional Master's Degree in Educational Research** endorsed by **TECH Global University**, the world's largest online university.

TECH Global University is an official European University publicly recognized by the Government of Andorra (***official bulletin***). Andorra is part of the European Higher Education Area (EHEA) since 2003. The EHEA is an initiative promoted by the European Union that aims to organize the international training framework and harmonize the higher education systems of the member countries of this space. The project promotes common values, the implementation of collaborative tools and strengthening its quality assurance mechanisms to enhance collaboration and mobility among students, researchers and academics.

This **TECH Global University** private qualification is a European program of continuing education and professional updating that guarantees the acquisition of competencies in its area of knowledge, providing a high curricular value to the student who completes the program.

Title: **Professional Master's Degree in Educational Research**

Modality: **online**

Duration: **12 months.**

Accreditation: **60 ECTS**


tech global university

Mr./Ms. _____ with identification document _____
has successfully passed and obtained the title of:

Professional Master's Degree in Educational Research

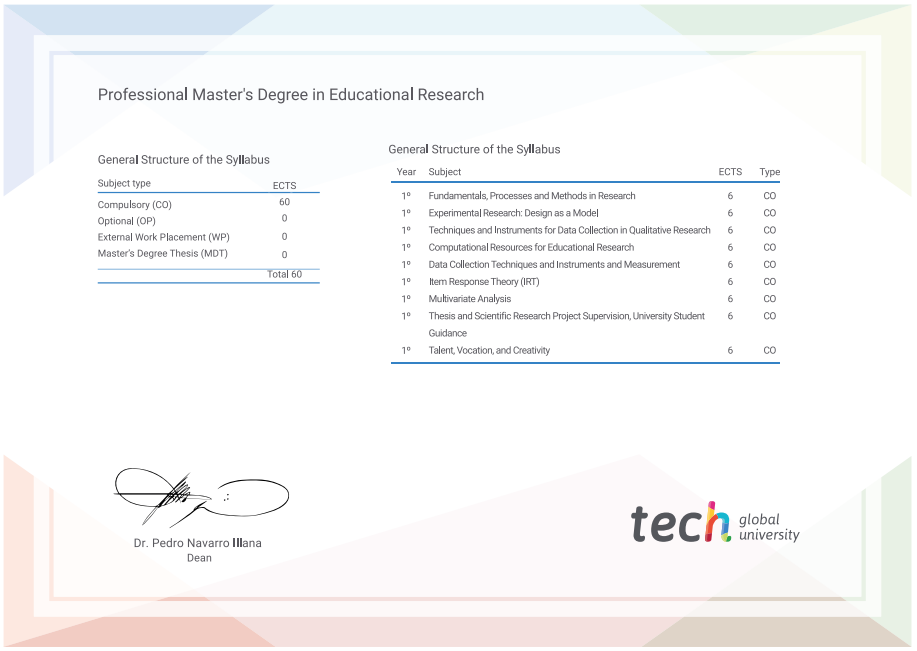
This is a private qualification of 1,800 hours of duration equivalent to 60 ECTS, with a start date of dd/mm/yyyy and an end date of dd/mm/yyyy.

TECH Global University is a university officially recognized by the Government of Andorra on the 31st of January of 2024, which belongs to the European Higher Education Area (EHEA).

In Andorra la Vella, on the 28th of February of 2024

Dr. Pedro Navarro Illana
Dean

Unique TECH Code: AFWORD23S techtitute.com/certificates


Professional Master's Degree in Educational Research

General Structure of the Syllabus

Subject type	ECTS
Compulsory (CO)	60
Optional (OP)	0
External Work Placement (WP)	0
Master's Degree Thesis (MDT)	0
	Total 60

General Structure of the Syllabus

Year	Subject	ECTS	Type
1º	Fundamentals, Processes and Methods in Research	6	CO
1º	Experimental Research: Design as a Model	6	CO
1º	Techniques and Instruments for Data Collection in Qualitative Research	6	CO
1º	Computational Resources for Educational Research	6	CO
1º	Data Collection Techniques and Instruments and Measurement	6	CO
1º	Item Response Theory (IRT)	6	CO
1º	Multivariate Analysis	6	CO
1º	Thesis and Scientific Research Project Supervision, University Student Guidance	6	CO
1º	Talent, Vocation, and Creativity	6	CO

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

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Professional Master's Degree
Educational Research

- Modality: **Online**
- Duration: **12 months.**
- Certificate: **TECH Global University**
- Accreditation: **60 ECTS**
- Schedule: **at your own pace**
- Exams: **online**

Professional Master's Degree

Educational Research

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