

PROFILO 1 BUSTA 3

1. Cosa differenzia la metodologia controfattuale da altre metodologie quantitative utilizzate nella ricerca educativa.
2. Illustrare i principali tipi di domande nei questionari
3. Illustrare alcuni tipi di ricerca valutativa in campo educativo



PROFILO 1 – BUSTA 3

Climate change - can we stop it? (third part)

"Going green" will cost an enormous amount of money, and use some kinds of technology that do not yet exist. Also there are some people who believe that it will be too expensive.

Although most people care about our planet and know that we have to act now to avoid a climate catastrophe, there are other people who have different priorities. There are people who just don't care, and there are people who care more about themselves than about the world around them. There are people and big companies that just want to make money, and are not interested in anything that gets in their way. Most importantly, there are politicians who are frightened of doing anything that other people will not like; they make promises, but they do not keep them.

<https://linguapress.com/intermediate/climate-change.htm>



PROFILO 1 BUSTA 5

1. Pregi e difetti della scala Likert
2. Differenza tra approccio sperimentale e quasi sperimentale
3. Approccio qualitativo nella ricerca sociale: differenze rispetto al quantitativo



PROFILO 1 – BUSTA 5

The Commonwealth (second part)

In 1961, South Africa, one of the first members of the Commonwealth, decided to leave the organisation. Perhaps that was a good decision for South Africa at the time; if it had not left in 1961, it would probably have been expelled a few years later, because other Commonwealth countries condemned Apartheid.

The Commonwealth is an organisation which includes people of all races and religions. It has, in theory, no place for racism, for dictators or for repressive regimes. Before South Africa left the Commonwealth, other Commonwealth nations asked Pretoria to give up its policies of racial segregation.

After South Africa's departure, developing nations in the Commonwealth put strong pressure on the larger nations, particularly Britain and Australia, to cut cultural and sporting links with South Africa.

<https://linguapress.com/intermediate/commonwealth.htm>



PROFILO 1 BUSTA 4

1. Vantaggi e svantaggi del questionario rispetto all'intervista
2. Integrazione tra qualitativo e quantitativo nella ricerca educativa: con quali modalità e in quali occasioni?
3. Ricerca valutativa: gli strumenti di indagine più usati in una prospettiva di learning



PROFILO 1 – BUSTA 4

The Commonwealth (first part)

At the end of the Second World War, Britain was at the centre of a vast Empire that covered a large part of the world; but the age of empires was already ending. Countries like Canada and Australia had already become independent; and Gandhi's struggle led to Indian independence in 1948. After that, one by one, almost all Britain's "colonies" followed the same path, and in the space of about 20 years, the British Empire ceased to exist. However, most of the former colonies have chosen not to break all their links with Britain, but to join Britain in a new association of independent states, the Commonwealth.

Today, the Commonwealth is the biggest international grouping of states after the United Nations, and far from getting smaller, it has got bigger in recent years.

<https://linguapress.com/intermediate/commonwealth.htm>



PROFILO 1 BUSTA 1

1. Pregi e difetti di alcuni strumenti di indagine della ricerca valutativa.
2. Vantaggi e limiti dell'approccio sperimentale
3. Concetti, variabili, indicatori



PROFILO 1 – BUSTA 1

Climate change - can we stop it? (first part)

There are still some people who say that climate change is not real ! Others say that it is real, but we cannot do anything to stop it, so we need not try. A few people even say that climate change is not caused by human beings. But most people now understand that our world is getting hotter, and we have to do something about it. We only have one Earth, and we can't get another one.

Twenty years ago, people could perhaps imagine that climate change was not a real problem, because some scientists still had doubts. Today almost all the world's scientists agree: the world is getting hotter, and it is the fault of human beings. Our planet is going towards a climate catastrophe, but we can stop its worst effects. Indeed we must do everything possible to stop them.

<https://linguapress.com/intermediate/climate-change.htm>



PROFILO 1 – BUSTA 2

Climate change - can we stop it? (second part)

In November 2021, world leaders (or most of them) met in Glasgow, in Scotland, for the COP26 summit. They took quite a few decisions, to try and stop the Earth getting too warm. Many countries promised to become "carbon neutral" before 2050. Some have promised to become carbon-neutral even faster. World leaders agree that we have to stop using coal and oil to generate heat and electricity; we should use green energy sources instead, known as "renewables."

Before the year 2100, all the energy that we use may perhaps come from renewable sources; the sun, the sea, the wind and rivers can produce more than enough energy for everyone on our planet, but we still have a long way to go. The green energy revolution has already begun, but the challenges are still enormous.

<https://linguapress.com/intermediate/climate-change.htm>



PROFILO 1 BUSTA 2

1. Ricerca valutativa: citare gli strumenti di indagine più usati in una prospettiva di accountability
2. Dalla costruzione degli indicatori alla costruzione dell'indice
3. In quali circostanze utilizzerebbe una metodologia controfattuale di valutazione d'impatto e con quali vantaggi?



PROFILO 2 BUSTA 4

Personality and health (Third part)

Health information is usually available in various forms – printed, digital, audio, and so on – to be suitable and accessible for different users, such as the blind, the elderly, and people with reading difficulties. Research has also shown that, by identifying different patients' motivations for treatment and then corresponding with them in a way that reflects their motivations, patients will become more involved in their treatment, compared to when the same messages are sent to everyone. Correspondence could, therefore, be adapted to reflect patients' personality type, too. For example, less conscientious people could be sent phone reminders to attend appointments. So far, there has been very little research into the effectiveness of tailoring health guidance according to personality, so this area deserves further study.

<https://test-english.com/reading/b2/personality-and-health-reading-test/>



PROFILO 2 BUSTA 4

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PROFILO 2 BUSTA 7

1. Fattori che influenzano l'attendibilità di un test nella Teoria Classica dei Test.
2. Possibili elementi alla base della selezione del modello di *Item Response Theory* più adeguato rispetto ai dati, alle caratteristiche dello strumento e agli obiettivi della rilevazione.
3. *Computer Adaptive Testing*: possibili criteri per il termine della somministrazione degli item a ciascun rispondente (*stopping rules*).



PROFILO 2 BUSTA 7

The story of Silicon Valley

It is not made of silicon; and it is not a river valley; but forgetting that, Silicon Valley is probably the most famous valley in the world. Although it is not the place where the first computer was built (that was Manchester, England), Silicon Valley, near San Francisco, was the birthplace of the modern computer industry.

The high-technology industry was already present around San Francisco. INTEL had been founded in 1968, and in the same year the first computer mouse was built at Stamford University. In 1970, XEROX opened a research center in Palo Alto. There were also other electronics companies, like Hewlett Packard, and Fairchild, the world's first "semiconductor" company.

Today, Silicon Valley is still the home of the computer industry; it is still full of high technology, but it is not the only center for high-tech in the USA.

<https://linguapress.com/intermediate/silicon-valley.htm>



PROFILO 2 BUSTA 6

1. La valutazione della capacità discriminativa degli item dicotomici nella Teoria Classica dei Test.
2. Valutazione dell'item *fit* e del *person fit* nell'*Item Response Theory*: obiettivi e indici.
3. Possibili applicazioni del modello di Rasch (1960; 1980) allo studio della validità di test per la rilevazione di apprendimenti.



PROFILO 2 BUSTA 6

The History Of Time (second part)

The sun rises in the eastern sky, producing light. It moves across the sky and sinks in the west, causing darkness. The appearance and disappearance of the sun was even and unfailing. The periods of light and darkness it created were the first accepted periods of time. We have named each period of light and darkness: one day.

People saw the sun rise higher in the sky during the summer than in winter. They counted the days that passed from the sun's highest position until it returned to that position. They counted three hundred and sixty-five days. We now know that is the time Earth takes to move once around the sun. We call this period of time a year.

Early humans studied the sky. They gathered enough information so they could know when the seasons would change.

<https://www.esl-lounge.com/student/first-certificate/fce-101-reading-multiple-choice-the-history-of-time.php>



PROFILO 2 – BUSTA 5

1. Il processo di costruzione di strumenti per la rilevazione di variabili latenti (costrutti) nella cornice della Teoria Classica dei Test: le principali fasi.
2. Il modello logistico di *Item Response Theory* per item dicotomici a due parametri.
3. Metodi empirici per la valutazione dell'invarianza del funzionamento degli item per la rilevazione di una variabile latente nel corso del tempo.



PROFILO 2 BUSTA 5

The History Of Time (first part)

If you can read a clock, you can know the time of day. But no one knows what time itself is. We cannot see it. We cannot touch it. We cannot hear it. We know it only by the way we mark its passing. For all our success in measuring the smallest parts of time, time remains one of the great mysteries of the universe. One way to think about time is to imagine a world without time. There could be no movement, because time and movement cannot be separated. A world without time could exist only as long as there were no changes. For time and change are linked. We know that time has passed when something changes. In the real world, the world with time, changes never stop. Some changes happen only once in a while, like an eclipse of the moon. Others happen repeatedly, like the rising and setting of the sun.

<https://www.esl-lounge.com/student/first-certificate/fce-101-reading-multiple-choice-the-history-of-time.php>



PROFILO 2 BUSTA 2

1. La validità di criterio (predittiva e concorrente): definizione e strategie di verifica empirica.
2. Le funzioni informative dell'item (*item Information function*) e del test (*test information function*): definizione e possibili applicazioni nel processo di costruzione di un test.
3. Possibili disegni di ancoraggio implementabili al fine di poter confrontare gli esiti di due diverse prove standardizzate pensate per rilevare lo stesso costrutto nella stessa fascia d'età.



PROFILO 2 BUSTA 2

Personality and health (first part)

There is increasing evidence that health is linked to personality. However, until now, the relationship has not affected the way health care is delivered. There are several reasons for this. Some health workers doubt whether there is a direct link between health and personality or whether it's just a coincidence. Some feel it is their professional duty to treat all patients in the same way. Others argue that delivering health services according to patients' personalities will have minimal impact and therefore isn't worth the effort. However, some psychologists believe that applying different procedures to people with different personalities could have a significant, positive effect on health.

Until now, the focus of personality-health research has been to explore the link between personality and health and has had very little practical application.

<https://test-english.com/reading/b2/personality-and-health-reading-test/>



PROFILO 2 - BUSTA 1

1. L'attendibilità nella Teoria Classica dei Test: definizione teorica e metodi di stima empirica.
2. Invarianza e oggettività specifica nel modello di Rasch.
3. *Computer Adaptive Testing*: possibili metodi per la selezione degli item da presentare a ciascun rispondente (*item selection rules*).



PROFILO 2 – BUSTA 1

IEA study on science

Science, technology, engineering and mathematics (STEM) fields are essential to addressing global challenges such as health technologies, climate change, and the scarcity of natural resources. Although a number of countries are investing a great deal of resources in the STEM fields, there are substantial gender disparities relating to both studies and employment in STEM fields. For example, in 2017 in OECD countries, only 30% of students starting bachelors programs in STEM were women. Further, in 2017, globally, the percentage of females studying engineering, manufacturing and construction or information and communication technology (ICT) was below 25% in over two-thirds of countries.

Clearly, factors other than science and mathematics knowledge and skills are at play.

<https://www.iea.nl/sites/default/files/2022-04/Compass%20Brief%2017%20Missing%20out%20on%20half%20of%20the%20worlds%20potential.pdf>



PROFILO 2 – BUSTA 3

1. Validità convergente e validità discriminante: definizione e strategie di verifica empirica.
2. Possibili applicazioni dei modelli e metodi dell'*Item Response Theory* alla costruzione di scale di competenza.
3. La costruzione di prove standardizzate con item a scelta multipla: caratteristiche desiderabili dei distrattori (alternative di risposta errate) e strategie per lo studio del funzionamento dei distrattori.



PROFILO 2 BUSTA 3

Personality and health (second part)

Research into personality has, in recent years, focused on the Big Five model of personality types. This model measures how neurotic, extrovert, open to experience, agreeable and conscientious a person is. Some of these personality types have been studied in relation to health. For example, conscientious people tend to be less likely to smoke, drink too much alcohol or be inactive. However, in other cases, the relationship is less clear. Neurotic behaviour, for instance, has been found in some studies to increase the risk of death, in others to protect people from illness and in others to have no link to health at all.

Even so, if health workers applied an understanding of personality to the services they provide, they could influence the extent to which patients act on advice and follow their treatment.

<https://test-english.com/reading/b2/personality-and-health-reading-test/>



PROFILO 3 - BUSTA 3

1. Scomposizione della varianza entro le scuole e tra scuole. Significato interpretativo.
2. Si consideri il seguente modello di regressione lineare OLS:

$$y_i = \beta_0 + \beta_1 X_1 + \dots + \beta_n X_n + \epsilon_i$$

Sia X_1 una variabile discreta dicotomica che indica il genere di un allievo (0=maschio; 1=femmina). Come si interpreta il valore di β_1 ?

3. Come si definisce e si costruisce un intervallo di confidenza?



PROFILO 3 – BUSTA 3

Home or homeless?

Every year, thousands of young people in Britain leave home in search of a better or more exciting life; many of them go to London, attracted by the bright lights, the night life and the hope of finding work.

16-year olds who leave school with few or no qualifications find it very hard to get jobs; indeed, in some British cities, particularly in the North, finding work is almost impossible for unqualified people, specially young people. London, however, has less unemployment and more jobs; and though no one imagines that the streets of the capital are "paved with gold" (as in the legend), many teenagers make their way to the capital, hoping to set up a new home of their own.

Though there are indeed more jobs in London than in most other cities, they are not always good jobs, and the the dream of leaving home and finding a job often turns out to be just that: a dream.

<https://linguapress.com/intermediate/leaving-home.htm>



PROFILO 3 - BUSTA 1

1. Si consideri il seguente modello di regressione lineare OLS:

$$y_i = \beta_0 + \beta_1 X_1 + \dots + \beta_n X_n + \epsilon_i$$

Sia X_1 una variabile discreta centrata rispetto alla propria media.
Come si interpreta il valore di β_1 ?

2. Che cosa significa standardizzare una variabile continua? Come e perché si fa.
3. Illustrare le determinanti per la scelta di un disegno di campionamento utilizzando opportuni esempi relativi al sistema scolastico.



PROFILO 3 – BUSTA 1

Racism

In most parts of today's Britain, racism is not part of ordinary life. Most people do not judge other people by the colour of their skin. Groups like the British National Party are very marginal, and do not usually win any elections. The most ugly forms of racism, at least, have been rejected; and while Britain's Blacks still have many forms of prejudice to fight against, vicious racism is not usually one of them. Nonetheless, although Black and White communities live side by side in most British cities, and there are not usually visible tensions between ordinary people, from time to time serious racist incidents take place.

Almost every week, racist incidents are reported in the media, somewhere in Britain.

Yet there are two sorts of racism: visible racism, and invisible racism.

<https://linguapress.com/intermediate/black-and-british.htm>



PROFILO 3 - BUSTA 2

1. Il p-value e il concetto di significatività statistica
2. La differenza tra il coefficiente di determinazione lineare (R^2) e il coefficiente di determinazione lineare aggiustato (R^2 -adjusted) in un modello di regressione lineare multivariata.
3. Si consideri il seguente modello di regressione lineare OLS:

$$y_i = \beta_0 + \beta_1 X_1 + \dots + \beta_n X_n + \epsilon_i$$

Sia X_1 una variabile standardizzata. Come si interpreta il valore di β_1 ?



PROFILO 3 – BUSTA 2

Equal opportunities?

In America in 2014, the President is black. Black policemen are fairly common: so are black politicians, black mayors, black Marines, and to a lesser extent black businessmen.

In Britain however, there are still many professions in which Blacks have not yet managed to make much progress.

Although Blacks and Asians make up over 14% of the population of London and about 8% of the total British population, you won't often see a black policeman, or a black Royal Marine. For many reasons, Blacks have found it hard to enter a number of professions; and once in these professions, they often find it harder to get promoted than white people.

In 1981 40% of Britain's Whites worked in professional, managerial or clerical jobs, only 13% of Blacks held similar jobs.

<https://linguapress.com/intermediate/black-and-british.htm>

