



PhD in INGEGNERIA GESTIONALE / MANAGEMENT ENGINEERING - 40th cycle

**THEMATIC Research Field: POLICIES AND MANAGEMENT PRACTICES FOR IMPROVING
EDUCATION**

Monthly net income of PhDscholarship (max 36 months)

€ 1500.0

In case of a change of the welfare rates during the three-year period, the amount could be modified.

Context of the research activity

Motivation and objectives of the research in this field

The present research aims at shedding some lights on some of these dynamics, by exploring the association between schools and universities' efficiency and the use of technology. Although detailed data about the use of technology in specific institutions is generally poor, some information is collected in the international surveys conducted for example within the framework of IEA's TIMSS and PIRLS and OECD's PISA. This research also has the ambition of proposing an approach to improve data collection in this field. Which are the key indicators that can be developed for measuring the degree and type of technology adoption by single schools and universities?

Methods and techniques that will be developed and used to carry out the research

The research will benefit from a variety of different empirical methods. The different phases of the research will use different methods, selecting the appropriate ones to answer the specific research questions that will be formulated.

Quantitative methods for estimating efficiency:

- Statistical methods- Data Envelopment Analysis (DEA), Full Disposal Hull (FDH) and conditional efficiency methods, belonging to the family of "statistical frontiers" methods. Part of the analysis will be conducted at country level (i.e. comparing aggregated, average data for educational systems), while another part will drill down the analysis at institution (school/university) level



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| | <p>the analysis.</p> <ul style="list-style-type: none"> •Econometric methods- Panel data will be employed for exploring the efficiency of educational systems over time (same European countries in different years, to detect time-varying efficiency scores and rankings of efficient countries). <p>Qualitative methods for interpreting the results about the efficiency of educational systems:</p> <ul style="list-style-type: none"> •Interviews with experts and policy makers. •Delphi studies. |
| Educational objectives | Training a professional in the field of educational policy and measurement, with a specific professionalism in the area of data collection and analysis. |
| Job opportunities | Academia, research institutes, institutions working in the policy domain. |
| Composition of the research group | 1 Full Professors 1 Associated Professors 1 Assistant Professors 3 PhD Students |
| Name of the research directors | Tommaso Agasisti |

| Contacts |
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| tommaso.agasisti@polimi.it |

| Additional support - Financial aid per PhD student per year (gross amount) | |
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| Housing - Foreign Students | -- |
| Housing - Out-of-town residents (more than 80Km out of Milano) | -- |

| Scholarship Increase for a period abroad | |
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| Amount monthly | 750.0 € |
| By number of months | 6 |

| Additional information: educational activity, teaching assistantship, computer availability, desk availability, any other information |
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| The research group will offer opportunities for attending specialized seminars, specialized training |



courses, seminar series. In addition, we provide a desk in the office of the PhD students involved in the research. A laptop and access to software is provided.

- Involvement in projects: "For the overall development of their capabilities, PhD candidates will work on synergical projects to favour empirical data collection and network development for their career. Projects will give candidates the opportunity to work in group (peers and other senior professors)".
- Teaching and tutoring: "If coherent with the development of their doctoral program, the PhD candidate will have the opportunity to be involved in: teaching activities, tutoring to master students, tutoring to PhD candidates for administrative processes".
- Italian knowledge (e.g. borsa co-finanziata da ente italiano): "The interaction with key stakeholders requires a fluent knowledge of the Italian language".

Funding for educational activities: 6.100,00 Euros for three years.