Open Educational Resources for an Evidence Based Inclusive Education
Evidence Based Education European Strategic Model for School Inclusion.

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Table of Contents

About EBE-EUSMOSI ........................................................................................................... 3

Introduction .......................................................................................................................... 4

How to use this OER ............................................................................................................ 5

The EBE-EUSMOSI Model for School Inclusion ................................................................. 6

The EBE-EUSMOSI Model for School Inclusion: Introduction ............................................ 7

Why a model for school inclusion? ...................................................................................... 11

What do we mean by "evidence-based education"? .............................................................. 11

Which experimental methodologies for the evidence-based model? ................................. 14

How was the EBE-EUSMOSI Model for Inclusion developed? ......................................... 16

Conclusions and Thank you ............................................................................................... 19

References ........................................................................................................................... 20

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About EBE-EUSMOSI

The New Initiative to Use Proven Evidence-based Education in School Inclusion:

EBE-EUSMOSI Aims to Support and Promote Inclusion Strategies in Europe through Interactive Portal, Dynamic Quality Framework, and Open Educational Resources

Which is the best way to assess the elements which compose inclusive and high-quality learning environments using evidence-based education (EBE)? The forward-thinking new Erasmus+ project “Evidence Based Education – European Strategic Model for School Inclusion” (EBE-EUSMOSI)” has set out to develop the great potential of EBE in inclusive educational approaches in schools across Europe.

Taking their cue from the recommendations made in many international studies supporting evidence-based policy-making, EBE-EUSMOSI addresses problems in assessing the effectiveness and efficiency of school inclusion practices. Furthermore, the project works to overcome the difficulties in promoting methodologies suitable for special education and inclusion.

As any good decision-making should be based on empirical research, EBE-EUSMOSI has integrated procedures based on such to develop a European reference model to evaluate the quality of school inclusion, especially regarding EBE. The project has also created and validated a tool to assess the quality of school inclusion in different organisational and cultural contexts.

In order to ensure the long-term impact of its efforts, EBE-EUSMOSI fosters a research network to integrate, define, and disseminate specific training models internationally, including open educational resources and practices.

Thus, EBE-EUSMOSI aims to identify and integrate, within a reference model, the research procedures which can contribute to an evidence-based validation of educational programs aimed at school inclusion for all pupils in whole Europe.

More information about EBE-EUSMOSI online:

http://www.inclusive-education.net/
Introduction

This document is the summary of three years’ work among five partners’ countries (Italy, Spain, Croatia, Slovenia and the Netherlands) and six different universities (University of Perugia, University of Udine, Autonomous University of Barcelona, University of Zagreb, University of Slovenia and the Open University of the Netherlands). The project EBE-EUSMOSI aims mainly at develop a European reference model able to assess the quality of school inclusion in an Evidence Based Education (EBE) perspective.

During these three years teachers were trained and guidelines for a more inclusive evidence based approach were developed for teachers and headmasters.

All experiences and recommendations deployed in the project for a more inclusive education are reported and published as Open Educational Resources (OER).

The document presents the EBE-EUSMOSI Model for Inclusion that aims to facilitate evidence-based education for school inclusion and to support all learners and to develop and build their social, emotional and prosocial skills.

This document introduces the EBE-EUSMOSI Model for Inclusion and analyses the needs for model for school inclusion.

It explains the meaning and methodology of evidence-based education that is the basis of the EBE-EUSMOSI Model for Inclusion.

Finally it explains the experimental methodologies that were used for the evidence-based model and how the EBE-EUSMOSI Model for Inclusion was developed.

In the end you can find further references for all sections.

We hope that this Open Educational Resource from the EBE-EUSMOSI consortium will help you and your colleagues to improve inclusive education in your school and region as well as in whole Europe: Please share it as it has got the open Creative Commons licence "BY-NC-SA" and is openly and freely available for all on our website:

www.inclusive-education.net
How to use this OER

This OER publication presents the EBE-EUSMOSI Model for Inclusion developed and applied by the EBE-EUSMOSI consortium as core result of the European collaboration.

It starts with an introduction of the EBE-EUSMOSI Model for Inclusion analysing the needs for such a model for school inclusion.

Then the meaning and the methodology of evidence-based education are provided as the basis of the EBE-EUSMOSI Model for Inclusion.

Finally the experimental methodologies used for the evidence-based model and the way how the EBE-EUSMOSI Model for Inclusion was developed are explained.

In each section you can find:

- theoretical background,
- core objectives as well as
- practical instruments.

Related resources are presented in the end and the references are provided in an annex.
EBE-EUSMOSI Model for Inclusion
The EBE-EUSMOSI Model for School Inclusion: Introduction

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The EBE-EUSMOSI Model for School Inclusion: Introduction

The UNESCO Policy Guidelines on Inclusion in Education (2009) describes Inclusive Education (IE) as a process aiming at strengthening the education system capacity so to reach all students.

An inclusive school system can only be created if regular schools become more inclusive, in other words, if they improve the education of all children within their community.

The concept of inclusion though, has been widened through relevant European and international decisions and research and has now come to consider not only the needs of students with disabilities, but also the needs of each student, who must see their differences, all differences welcomed by the school.
The Salamanca Conference, organized by UNESCO in 1994, the Luxembourg Declaration (European Union, 1996) the Convention on the Rights of Persons with Disabilities (United Nations, 2006) are some of the main documents that highlighted the great importance of education’s inclusive dimension.

This means that IE is for all individuals, whatever their condition, a right that cannot be questioned. Considered in these terms, the concept of IE sets new challenges to all European school systems, and invites them to reorganize themselves on different basis: organizational, structural and in innovating the teaching – learning approaches (considering also the differences between the educational systems in the various European countries).

IE differs from the concept of integration, as it conceives from the very beginning a project aimed at all students, taking into account the differences one can find in a single class nowadays, to promote the best opportunities for the personal growth of all learners.

The principle of “inclusion” is absolutely indisputable, as it relies on universal, theoretical grounds which consider each and every individual, regardless of their cultural and/or personal traits, as a fundamental entity of society who finds their reasons for being within the full respect and appreciation of all.

Moving from theory to practice in the school context, however, not always the set of organizational, methodological and educational procedures, as needed for a concrete realization of the principle and for the promotion of true inclusive practices, are implemented.

In the United States the No Child Left Behind Act of 2001 (later replaced by the Every Students Succeeds Act, 2015) and the Individuals With Disabilities Education Improvement Act (IDEA) of 2004 highlighted the use of research as the foundation for training and practice; the European Agency for Special Needs and Inclusive Education¹ has recently stressed the need to have reliable data for long-term development in the education system in terms of improving or implementing inclusiveness, as one of the five key message for a European inclusive education (Soriano, 2014).

Furthermore, the inclusive approach is often not adequately supported by an applied research that can validate its purposes, procedures and results.

¹ https://www.european-agency.org
The EBE-EUSMOSI European project aims at identifying and assessing which elements can really make the quality of school inclusion by using the principles of evidence-based education (EBE) and sees the participation of five European countries (Italy, Spain, Croatia, Slovenia and the Netherlands), which have different educational systems. This poses an interesting challenge to research.

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2 http://inclusive-education.net
Why a model for school inclusion?

A model is a scientific **paradigm**, made by the merging of different studies, research, contributions of one or more researchers that tries to explain and understand one or more phenomena and it is always open to modifications of its early statements.

The research developed within the EBE-EUSMOSI project allowed the outlining of an **evidence-based** research model, thus a research paradigm within which reading and investigating the complexity of the studied phenomenon – which is, indeed, inclusive education.

What do we mean by "evidence-based education"?

“[…] an approach which argues that policy and practice should be capable of being justified in terms of sound evidence about their likely effects” (Coe, 1999).

Such model can answer the need for building **shared and reliable** forms of knowledge, at a European level, on the **inclusive processes promoted by schools**, and to be really attainable in the different educational contexts without giving up – for the sake of research – the typical, distinctive aims of each educational institution.

As highlighted by an Italian study (Cottini & Morganti, 2015) on how to answer these needs, the key principles of the Evidence Based Education model applied to special education, can impact both on research and teaching – learning application, taking into account some crucial elements (Fig. 1).
What do we mean by "evidence-based education"?

Following, the detailed description of the three essential elements that make up the model:

1. **Efficacy research**: such element answers the question “What works for inclusive education?”. For example: amongst the intensive behavioral programs, the most studied is surely the *Applied Behavior Intervention* (ABA). Many are the studies that support its efficacy in improving a number of skills in children with autistic spectrum disorders, such intellectual, language skills and adaptive behaviors. Available evidences allow for suggesting the use of the ABA model with these children (Lovas 1987, 1993, Horner at al., 2002). Such element referred to the research on “what works” highlights also some limitations, as even when we know which methodologies are more effective, it is then not so easy to apply the educational intervention to the real world, particularly if this generalization concerns a very specific environment such as the school one.

2. **Effectiveness research**: this element assesses the effect produced by the interventions (recalling the previous example, it means to assess when and for who the ABA approach in school is working), and it answers the question “When does it work and for who?”. This second element of the model allows to pinpoint, through applied research, le minimum conditions for implementing successful educational actions while keeping in mind the characteristics of the...
What do we mean by "evidence-based education"?

learners, teachers, the organization of the environment, and the resources available. Applied research can indeed take into account a series of contextual variables that would otherwise interact uncontrollably and undermine the generalization of the results.

3. **Implementation**: the last element of the model takes into account the real implementation of the intervention during the daily teaching and answers questions such as “What can we do to make it work?” and “Is it working?” Slavin (2002) shows that educational research has been applied haphazardly in schools. As Bryan et al. declares “[...] the gap between research and practice is particularly problematic in special education, as learners with disabilities require highly effective instruction to reach their potential” (2014, 1).

So, keeping in mind the above listed features, we can say that the evidence-based model for inclusion achieved in the EBE-EUSMOSI project can impact both the research level and the teaching level, and it finds its validation in the precious contribution offered by applied research.
Which experimental methodologies for the evidence-based model?

Which experimental methodologies can answer the requirements of the evidence-based model for inclusion?

Starting from the three key principles that make up the model: *efficacy research*, *effectiveness research and implementation*, it is important, for special education, to share a less strict approach to evidence-based education for what concerns the kind of research to contemplate. Such approach, also defined as the golden standard of research (What Works Clearinghouse, 2010), is very rigorous and it is close to the one used in the medical field, based on the research design Randomized Controlled Trials (RCT); this approach can be very problematic for special education – think about the real difficulty in selecting homogeneous samples of subject with randomization procedures), and it could also hide, in group assessment, the effect of the intervention on the single individual and, as a consequence, it could bring only a partial contribution to the EBE-EUSMOSI model for inclusion in the domains of effectiveness and implementation.

Because of the difficulty in applying a strict evidence-based approach to special education, some authors (Biesta, 2007; Olson, 2004; Chatterji, 2004) indeed curbed the excessive enthusiasm in experimental quantitative methodologies, stressing their difficulty in being simply applied to education and the substantial difference from the medical field. These authors highlighted how the nature of educational research has also a qualitative character, enhancing the subjective dimensions of the actors involved that need to be taken into account; also, they stressed the complexity of the context itself which is made of a variety of factors that can be known only through participatory and descriptive approaches.

Another paper (Cottini & Morganti, 2013) showed that the two different approaches (qualitative and quantitative) can coexist within the Evidence-Based Education approach: the stricter one, similar to that adopted in medicine and based on the RCT research design, and a ‘softer’ approach still supported, though, by validation criteria leading to reliable and transferable knowledge systems.

In the EBE-EUSMOSI project we believe that in the field of special education the second orientation is to be preferred (Morganti, 2012a) and the EBE Model for Inclusion respects these criteria.
Which experimental methodologies for the evidence-based model?

In the light of all of this, we believe that further research models should be considered to assess intervention in the school context. In details:

1. group study, including both studies on differences and correlation;
2. single-subject research design;
3. qualitative designs;
4. mixed-methods.

Quality criteria shared by all research methodologies and those which are specific of each, have been described in detail for every one of these elements in a specific paper (see Cottini & Morganti, 2015).

On this basis, we believe that research aiming at validating interventions and strategies in special education could be categorized as those procedures that **fully** answer (*evidence-based* procedures) or **partially** answer (*potentially evidence-based* procedures) the criteria previously defined.

This way, the typical need of *evidence – based* research of anchoring the validation of knowledge to clear and repeatable procedures, can be fully satisfied.

Also the control of results, when the defined criteria are answered, implies methods that can ensure the reliability and validity of the groups for what concerns quantitative research or of the single subject, and credibility and authenticity for what concerns the conditions for qualitative research (Lincoln & Guba, 1985; Semeraro 2011).
How was the EBE-EUSMOSI Model for Inclusion developed?

In what way does EBE-EUSMOSI project answer to the EBE Model for Inclusion?

EBE-EUSMOSI project’s aim is to answer to three main questions which are pivotal for the definition of the EBE model for Inclusion:

1. How to assess the quality of inclusion in schools?
2. An inclusive school is also an efficient school?
3. How to improve the quality of inclusion?

1. For what concerns the first element, we created a specific tool named “Inclusive Process Assessment Scale” (Cottini et al. 2016). The Scale, which is the outcome of the joined work of the University of Udine and Perugia (Italy), sets itself both as an assessing and self-assessing tool, useful for allowing on one hand specific types of evaluation and, on the other, promoting thoughts on inclusive education’s quality indicators, thus contributing to the planning and ongoing adjustment of the educational project of the school and the class. The tool, in its computer version as well, allows for the planning of researches that can collect evidences supporting the full inclusion organization of schools. The Italian and English versions of the Inclusive Process Assessment Scale can be accessed through the University of Udine website: http://includere.uniud.it.

Fig. 2: Access Area “Ricerca Evidence Based” (Evidence-based research) of website http://includere.uniud.it

To answer the other two questions if an inclusive schools is also an effective school and how to improve the quality of school inclusion, we used both the quantitative approach (group research) and the qualitative approach (Fig.3). In details:
How was the EBE-EUSMOSI Model for Inclusion developed?

**EXPERIMENTAL PLAN NO. 1 – ITALIA-PERUGIA/SPAIN:**

The first experimental line was carried out by the Universities of Perugia (IT) and of Barcelona (ES) and sees a randomized design, with an intervention group and a control group, where the independent variable is represented by an intervention of *social emotional and prosocial learning*, while inclusion is the dependent variable. Each of the involved countries selected, following specific criteria, 10 intervention class of 4th grade, primary school (8-9 years of age) with which applying an intervention of social emotional and prosocial learning in the school year 2015/2016 using the PROSEL (Prosociality & Social Emotional Learning) Program, and 10 classes – always 4th grade, primary school – where no intervention was implemented.

**EXPERIMENTAL PLAN NO. 2 – ITALY-UDINE/CROATIA**

The second experimental line has been carried out by the Universities of Udine (IT) and Zagreb (HR) and sees a correlation design, through which verify whether or not there is a relation between high or low level of inclusiveness in a class and the outcomes achieved by learners on academic and social and emotional skills.

The two countries involved in this plan selected a wide sample of 4th grades (primary school) and administered to each of the selected classes the “Inclusive Process Assessment Scale” (see point 1).

The next step was assessing, through objective school tests, the reading comprehension, calculus, and mathematical problem-solving skills of the learners involved, as well as their emotional and social competences.

The purpose was to verify if the more inclusive classes were also the classes were more significant learning and achievement took place, both on a social emotional and academic level.
How was the EBE-EUSMOSI Model for Inclusion developed?

To answer the characteristics of the EBE-EUSMOSI Model for Inclusion previously describe, and proposed by the EBE-EUSMOSI project, the research approach that investigated the phenomenon of school inclusion, has been a mixed one (Fig. 4).
Conclusions and Thank you

Conclusions

Through the EBE-EUSMOSI project we outlined a model for studying school inclusion and we dearly wish it could and would be used by both researchers of this very wide and complex field for planning, carrying out and assessing their study, and by teachers to better orient and with more accuracy their daily practice as professionals. What the project wishes would be enhanced more and more, thanks indeed to the EBE model for Inclusion, is the always closer relation between the school world and the research world so that each would benefit from this exchange, with the aim of continuously improving school inclusion – which means a better school quality for all.

Thank you!

Thanks to the colleagues at University of Udine who shared and developed many aspects of the EBE model for Inclusion. Thanks to all the colleagues at the University of Perugia, the University of Udine, the Autonomous University of Barcelona, the Open University of the Netherlands, the University of Zagreb and the University of Slovenia who contributed, with their research, to feed and improve the model’s elements.

A heartfelt thank you to all the School Heads, teachers and learners who contributed to the validation of the model with their support, their helpfulness, their willingness to collaboration and sharing of ideas during the three years of the project. All of them have surely made a decisive contribution to the success of the research and the project itself.
References


References


