The DICE has been cast

A DICE resource
Research findings and recommendations
on educational theatre and drama

Palestinian Briefing Paper

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Theatre Day Productions

Education and Culture DG
Lifelong Learning Programme

Education and Training

Drama Improves Lisbon Key Competences in Education

dice

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DICE – Drama Improves Lisbon Key Competences in Education

dice

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This publication reflects the views of the authors only.

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In Brief

DICE ("Drama Improves Lisbon[1] Key Competences in Education") is an international EU[2]-supported project. This two-year project is a cross-cultural research study investigating the effects of educational theatre and drama on five of the eight Key Competences:

1. Communication in the mother tongue
2. Learning to learn
3. Interpersonal, intercultural and social competences, civic competence
4. Entrepreneurship
5. Cultural expression
6. Communication in the foreign languages.
7. Mathematical competence and basic competences in Science and Technology.
8. Digital competence.

The research was conducted by independent scientists, with the participation of four universities throughout Europe and twelve partners (leader: Hungary, partners: Czech Republic, Netherlands, Norway, Palestine, Poland, Portugal, Romania, Serbia, Slovenia, Sweden and United Kingdom). All members are highly regarded nationally and internationally and represent a wide variety of formal and non-formal practitioners of education. Educational theatre and drama practitioners and theoreticians believe in the efficacy of theatre and drama work for a long time, but until now it has rarely been measured with quantitative scientific tools. In the **DICE** project, several dozen educational theatre and drama practitioners, with the widest theoretical and professional background, have allied forces with academics (psychologists and sociologists), to measure the impact of educational theatre and drama.

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1 The Lisbon European Council in 2000 concluded that a European framework should define the new basic skills as a key measure in Europe's response to globalization and the shift to knowledge-based economies, and emphasized that people are Europe's main asset. Since then, these conclusions have been regularly restated including by the European Councils of March 2003, and of March 2005, and in the re-launched Lisbon Strategy which was approved in 2005.
2 Palestine TDP participation in the research was not funded by the European Commission.

Almost five thousand children were included, a sample size rarely seen in educational researches. The project, measured over one hundred different educational theatre and drama programmes, and involved the work of several hundred professionals.

The youngsters were selected from twelve different countries. There were equal numbers of boys and girls, some were well-off and others were living far below the poverty line, some were studying in elite schools of the capital of an EU12 country, others were refugees in the most disadvantaged village of the Gaza strip.

The only difference among them was that about half of the children *attended educational theatre and drama programmes for three-four months* (their scores are marked with **- - -**), while others did not (their scores are marked with ▬). As you will see, *children participating in educational theatre and drama activities changed in a significant way in many other respects as well.*

The following chart shows how the attitude of some five thousand youngsters changed towards the least accepted nationality / minority in their country, in a duration of three months, on a scale of five where one means complete hatred and five means complete acceptance. As you can see, there is a remarkable difference between how the two groups of youngsters have changed during these three months.
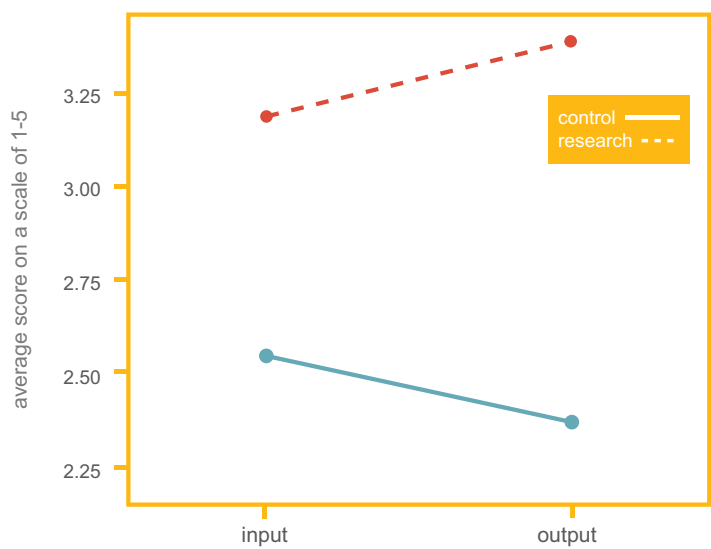

Chart 1. Differences between two groups of students in their attitudes towards their country's least accepted nationality / minority

What we found sometimes justifies what we have intuitively believed before and sometimes contradicts it; sometimes it is challenging or simply striking. We have several thousand charts like the one above, and we have selected the most revealing ones for this book. Our plan is to publish the complete set of results in detail in future years.

The Research findings

What does the research tell us about those students who regularly participate in educational theatre and drama activities compared with peers who had not been participating in any educational theatre and drama programmes?

 Theatre and drama participants:

1. are assessed more highly by their teachers in all aspects,
2. feel more confident in reading and understanding tasks,
3. feel more confident in communication,
4. are more likely to feel that they are creative,
5. like going to school more,
6. enjoy school activities more,
7. are better at problem solving,
8. are better at coping with stress,
9. are more tolerant towards both minorities and foreigners,
10. are more active citizens,
11. show more interest in voting at any level,
12. show more interest in participating in public issues,
13. are more empathic: they have concern for others,
14. are more able to change their perspective,
15. are more innovative and entrepreneurial,
16. show more dedication towards their future and have more plans,
17. are much more willing to participate in any genre of arts and culture, and not just performing arts, but also writing, making music, films, handicrafts, and attending all sorts of arts and cultural activities,
18. spend more time in school, more time reading, doing housework, playing, talking, and spend more time with family members and taking care of younger brothers and sisters. In contrast, they spend less time watching TV or playing computer games,
19. do more for their families, are more likely to have a part-time job and spend more time being creative either alone or in a group. They more frequently go to the theatre, exhibitions and museums, and the cinema, and go hiking and biking more often,
20. are more likely to be a central character in the class,
21. have a better sense of humour,
22. feel better at home.

Educational theatre and drama has a significant and objective measurable impact on the five key competences. Communication in the mother tongue; Learning to learn; Interpersonal, intercultural and social competences, civic competence; Entrepreneurship and Cultural expression. Raising citizens with educational theatre and drama in the curriculum will result in

- rise in the employment rate,
- reduction in the number of early school leavers,
- raise the overall quality of all levels of education and training,
- stronger synergy between culture and education,
- more active citizens,
- citizens being more sympathetic towards cultural diversity and intercultural dialogue,
- more innovative, creative and competitive citizens.

In contrast, however, in many countries educational theatre and drama

- has low funding and/or status,
- does not have a place in the national curriculum and/or the tertiary education system.

Recommendations

We hereby call on all responsible decision makers, to recognise the significance of educational theatre and drama:

- The school system: All children should have regular access to educational theatre and drama in their schooling, mandated throughout the national curriculum, and taught by well-trained theatre and drama specialists.
- Tertiary education: All teachers working in schools should have a basic knowledge of what educational theatre and drama is and how the subject areas can contribute to the enhancement of teaching and learning. Educational theatre and drama should be offered as in-depth studies in tertiary institutions. It is very important to emphasise that theatre and drama cannot be taught without proper training.
- Partner organisations: To establish a strong network of organisations dedicated to educational theatre and drama, regardless of whether these are private or public.
- National authorities (ministries) and local / regional authorities: To develop a conscious strategy on the application of educational theatre and drama. To support the expansion and improvement of educational theatre and drama by legal and financial means.

Hope you find inspiration in reading this book as we had in preparing it for you!

Ádám Cziboly
DICE project leader

A Relevance

A.1. What is DICE

DICE ("Drama Improves Lisbon Key Competences in Education") is an international EU-supported project. The two-year project is a cross-cultural research study investigating the effects of educational theatre and drama on five of the eight Lisbon Key Competences[3]. The research was conducted by twelve partners (leader: Hungary, partners: Czech Republic, Netherlands, Norway, Palestine, Poland, Portugal, Romania, Serbia, Slovenia, Sweden and United Kingdom). **All members** are highly regarded nationally and internationally and represent a wide variety of formal and non-formal sectors of education. Educational theatre and drama practitioners believe in the efficacy of their work for a long time, but until now it has rarely been measured with scientific tools. In the **DICE** project, several dozen educational theatre and drama practitioners, with the widest theoretical and professional background, have allied forces with academics (psychologists and sociologists), to measure the impact of educational theatre and drama.

3 In the document, we will sometimes refer to the "Lisbon Key Competences" as "Key Competences" only.

The objectives of the project are:

- To demonstrate with cross-cultural quantitative and qualitative research that educational theatre and drama is a powerful tool to improve the Key Competences. The research was conducted with almost five thousand young people aged 13-16 years.
- To publish a Policy Paper (the book you are reading), based on the research, and disseminate it among educational and cultural stakeholders at the European, Palestinian, national, and local levels worldwide.
- To create an Education Resource - a publication for schools, educators and arts practitioners about the different practices of educational theatre and drama. To disseminate this pack at the European, Palestinian, national, and local levels worldwide.
- To compare theatre and drama activities in education in different countries and help the transfer of know-how with the mobility of experts.
- To hold conferences in most of the partner countries in order to disseminate the results of the project, as well as a conference in Brussels to disseminate the first main results to key EU leaders in the relevant areas of arts, culture, education and youth.

Our hypothesis is that educational theatre and drama has an impact on five of the eight "Lisbon Key Competences."

We examined the **five Key Competences:**
1. Communication in the mother tongue
2. Learning to learn
3. Interpersonal, intercultural and social competences, civic competence
4. Entrepreneurship
5. Cultural expression

and believe that there is a competence not mentioned among the Key Competences, which is the universal competence of what it is to be human. We have called this competence "All this and more", and included it in the discussion of the research results. These six are life-long learning skills and competences necessary for the personal development of young people, their future employment, and active citizenship.

Pedagogical credo of DICE

Openness, empathy and responsibility are the fundamentals of active citizenship, pluralism, solidarity and civil dialogue.

To increase openness, empathy and responsibility in society, we need to target children and youth. Children are the members of tomorrow's society, capable of new ideas with a developing personality. We should empower more and more children to understand the values of democracy, be sensitive to social problems, have the ability to ask valid questions and examine answers from multiple points of view, so they will become open-minded, empathic and responsible.

To reach children, we need a tool that will deeply interest and engage them. We should teach them through the art form of theatre and drama, and through dramatic role-play and stories in which the pupils become actively engaged in exploratory investigation of moral, social or curriculum contents and what it means to be human in a contemporary world. In this way they become enabled and empowered – active and thinking citizens.

The key **outcomes** of the project are the Education Resource and the Policy Paper, www.dramanetwork.eu and hopefully also a long series of publications of the detailed research results in future years, beyond the scope of the project.

The **innovative aspect** of the project is that this is the first research to demonstrate connections between theatre and drama activities in education and the Key Competences, with the added value that the research results will be widely shared with the relevant communities and stakeholders. As many of the competences have rarely or never been examined before in cross-cultural studies, we also had to invent and develop new measurement tools that might be useful in the future for other educational areas as well. Besides some newly developed questionnaires for children, teachers, theatre and drama practitioners and external assessors, we devised a toolkit for the independent objective observation of educational theatre and drama classes. All materials used were identical in all twelve countries, and therefore are applicable in any culture.

The **ethos** underpinning the DICE project has been developed by the practice of the research project itself. It reflects our own learning, the spirit of our collaboration and the ongoing process we are engaged in through educational theatre and drama. We do not claim to be an absolute authority on the theory and practice of educational drama and theatre. We are a group of artist educators and arts education pedagogues who came together because we hold some fundamental values in common that underpin the work that we do. Principal among them is a commitment to nurture and develop the young; as drama educators and practitioners we work with young people and train others to do so. We proceed from the premise that children and young people are not undeveloped adults but human beings who have rights, should be treated justly and given equality of opportunity.

DICE is not only a two-year-long project, but rather a journey and an enterprise that has just started with this research. In the past two years several hundred people have been working with us, from peer volunteers to members of National Academies of Science. For some of us, this project has been one of the most challenging, if not the most challenging task of our professional career, something from which we could learn significantly.

A.2. What is Educational Theatre and Drama?

The children are watching a refugee girl, Amani, and a boy, George, interact in a disused railway station. Amani and George are played by two actors in role. The interaction is fraught with tension. Amani is frightened, George is aggressive - he is frightened too. They cannot speak to each other. One of the pupils, a girl aged seven, a girl who is often quiet, distant even, taps one of the adults working in the programme on the shoulder. "I know what the problem is", she says. The adult gets the attention of the actor facilitating the programme, indicating that the child is prepared to share her understanding with the rest of her peers. "His story is her story" she observes with quiet confidence, "and her story is his story, but they don't realise it." The significance was apparent to everyone in the room, it was held in a portentous silence. The task for everyone involved now was to deepen this understanding and share it with George and Amani. This was the stuff of real drama.

Suitcase – a Theatre In Education programme for children aged 6-7 years old

The drama of - *As if*

Let's begin with a broad definition of the meaning of drama, which derives from the Greek word Dran – to do. Drama is something of *significance* that is 'done' or enacted. In our work it is action explored in time and space in a fictional context.

Drama and theatre is a shared experience among those involved either as participant or audience where they suspend disbelief and imagine and behave as if they were other than themselves in some other place at another time. There are many aspects to the imagined experience of as if.

Drama is a framed activity where role-taking allows the participants to think or/and behave as if they were in a different context and to respond as if they were involved in a different set of historical, social and interpersonal relationships. This is the source of dramatic tension. In drama we imagine the real in order to explore the human condition.

Acting a role in a play, or taking a role in a drama, is a mental attitude, a way of holding two worlds in mind simultaneously: the real world and the world of the dramatic fiction. The meaning and value of the drama lies in the dialogue between these two worlds and the human subjects behind its representations: the real and the enacted; the spectator and the participant; the actor and the audience. Even in performance we are not simply showing to others but also seeing ourselves, and because of this, drama is an act of 'self' creation.

DICE – Educational Theatre and Drama

The range of work that has been the subject of this research project is both rich and diverse. It involves a variety of processes and performance elements in a variety of contexts using many different forms and different approaches to drama and theatre. We do however share a common concern for the needs of young people and view our work within an educational framework, whether this is in school or another learning context such as a theatre and drama group or club. We have therefore adopted the generic term of educational theatre and drama to describe the work that the partners in the DICE project do.

Why do we differentiate between theatre and drama?

The work explored in this publication, and we suspect the work of practitioners everywhere, functions along a continuum, with process at one end, moving on through exploring, sharing, crafting, presenting, and assessing, towards performance at the other. The fundamental difference between the two ends of the spectrum is the difference between process and product.

The creation and crafting of a piece of theatre has the audience as its focus. The process of making theatre can be educative in itself – we need to understand what we are performing to an audience, we learn skills in order to present a play text – but the function of theatre, irrespective of what an individual may get out of performing, is to show to others.

Performance however requires depth in order to be an event rather than an empty effect. Theatre cannot be theatre unless the actor is consciously divided within the aesthetic space, both self and not self – I and not I; unless there is a division between the aesthetic space and the audience; unless the dramatic event unlocks or accesses for the audience the most extreme situations, dilemmas and emotions concerning the gamut of human experience – be they spiritual, emotional, psychological, social, physical, etc.

To paraphrase Eric Bentley:

*In theatre, **A** (the actor/enactor) plays **B** (the role/performance) to **C** (the audience) who is the beneficiary.*

Drama, on the other hand, is not as concerned with the learning of theatre-skills, or production, as it is with the construction of imagined experience. Drama creates

dramatic situations to be explored by the participants, inviting them to find out more about the process of how the situation comes into being, to shift perspectives in the here and now, identify and sometimes solve problems and deepen our understanding of them. The focus is on process: it is a social activity that relies on many voices and perspectives, and on role-taking; that focuses on task rather than individual interests; and that enables participants to see with new eyes. This approach creates an opportunity to probe concepts, issues and problems central to the human condition, and builds space for reflection to gain new knowledge about the world. Drama is more concerned with providing the child with lived-through experience, with the enactive moment, rather than with performing the rehearsed moment. It moves along an educational continuum that embraces many forms, from simple role play that is very close to child's play to fully-structured sharing (including showing); but the focus remains on identifying opportunities for learning and how to organise these.

*In drama, **A** (the actor/enactor) is simultaneously **B** (role) and **C** (audience), through participation and observation, in a process of percipience (a process of both observing and participating).*

Educationally speaking, some of our work trains young people in theatre and drama skills in order that they can perform in theatre or pass those skills on to others through teaching. But there is also a deeper concern and a wider potential in educational theatre and drama: to use dramatic art to connect thought and feeling so that young people can explore and reflect subject matter, test and try out new ideas, acquire new knowledge, create new values, and build self-efficacy and self-esteem.

A.3. What are the Key Competences?

"Key competences in the shape of knowledge, skills and attitudes appropriate to each context are fundamental for each individual in a knowledge-based society. They provide added value for the labour market, social cohesion and active citizenship by offering flexibility and adaptability, satisfaction and motivation. Because they should be acquired by everyone, this Recommendation proposes a reference tool for all countries to ensure that these key competences are fully integrated into their strategies and infrastructures, particularly in the context of lifelong learning."

This quotation is derived from the Recommendation that first set out the Key Competences in 2006[4]. In the DICE project we investigated the effect of educational theatre and drama on five of the eight suggested competences, and in addition we ourselves suggested a sixth one.

A.4. The relevance of the DICE project for research in education and educational theatre and drama

Although the Lisbon Strategy has identified eight key competences as recommended objectives of education in Europe, the widely used and known large-scale student assessment target two of them almost exclusively: Communication in the mother tongue and Mathematical competence and basic competences in science and technology. Large-scale international student assessments are unfortunately limited not just in their focus but in their methodological approach as well. They use, almost exclusively, self-reporting questionnaires and individual paper and pencil tests to assess students' competences, and there are only very rare efforts to document not just the measuring of the students but the teaching process leading to the particular results.

In the DICE project we were experimenting with new approaches and tried to step over these barriers. We targeted competences usually forgotten by assessment programmes and tried to use wider methodological tools, including teacher reports, independent observations, self-reported programme descriptions. We collected data not just about the competence itself but also about the way the competence was developed. Instead of having a single point data entry, we had input and output data, and along with each target group we had a control group as well, in order to measure the effect as precisely as the present statistical and psychological tools would allow us to do.

DICE demonstrated that there are available, reliable and valid tools to assess some of those competences that have been forgotten by large-scale student assessment programmes. If other competences besides literacy, numeracy and digital competences are really valuable, then the assessment of these should be embedded into future student assessment programmes.
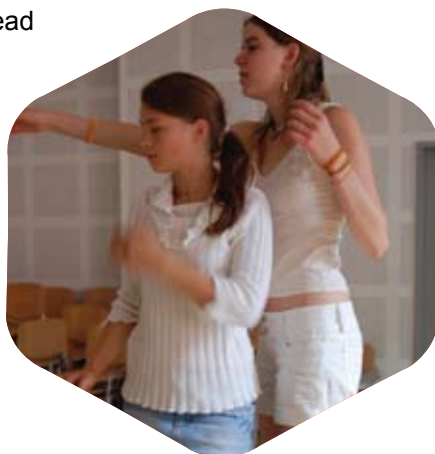
4 Recommendation of the European Parliament and of the Council, of 18 December 2006, on key competences for lifelong learning [Official Journal L 394 of 30.12.2006].

We do not think that the tools we are suggesting are the best or the perfect tools to assess students' competences, but on the other hand we are aware that the methods used in other assessment programmes are the subject of pedagogical critique[5]. *In sum, we believe that with the appropriate resources it should be possible to develop reliable and valid assessment tools for those competences which are nowadays forgotten by large-scale student assessment programmes.*

DICE has tried to complement not only the large-scale student assessment programmes but also previous research studies in the field of educational theatre and drama. The most prevalent feature of these research studies is their qualitative nature. On the one hand there is a philosophical basis to this: researchers in this field often state that the nature and real effect of educational theatre and drama cannot be caught by any hard data, because quantification inevitably means simplification, and certainly masks the most important features of theatre and drama. If you compare for example how broad is the definition of communication in the mother tongue (including reading, writing, oral comprehension and expression) and how narrow is the methodology usually used to assess it (paper and pencil test) you can understand the basis of this criticism.

On the other hand a qualitative approach cannot easily describe the effect of educational theatre and drama in a quantitative way, and this can lead to difficulty in communicating its value outside a narrow circle of specialists, keeping it marginalised and still largely undiscovered in mainstream education. That is why DICE tried to collect the available evidence from both qualitative research studies and some existing quantitative trials, and on the basis of these we tried to develop a methodology which could serve as a bridge between the qualitative and quantitative approaches, and use the advantages of both.

To our very best knowledge, DICE is the largest research study that has been conducted in the field of educational theatre and drama so far, with the largest population sample and the most complex design.

5 See e.g. Sjøberg, S. (2007): PISA and *"Real Life Challenges": Mission Impossible?* Contribution to Hopman (Ed): PISA according to PISA Revised Version Oct 8 2007 http://folk.uio.no/sveinsj/Sjoberg-PISA-book-2007.pdf

The power of educational theatre and drama

Educational theatre and drama can be a dynamic tool for achieving the fusion of logical - scientific thinking and narrative thinking in a holistic approach to the child that contextualises and grounds learning both socially and historically.

In educational theatre and drama our engagement is both intellectual and emotional, making learning affective. We cannot 'give' someone our understanding, real understanding is felt. Only if the understanding is felt can it be integrated into our minds and shape our values.

Educational theatre and drama is empowering and cultivates self-efficacy and builds self-confidence. In daily life, which proceeds at such a pace, it is hard to see our 'self' from within a situation and to exercise control over our thoughts and feelings. When we work in the drama mode we develop our 'self-spectator', an ability to be conscious of ourselves in a given situation. This helps us to take responsibility for ourselves; if we cannot do this we cannot take responsibility for others.

Rather than fear the 'other', which foments prejudice and hatred, educational theatre and drama encourage us to explore how others think and feel. Being able to 'step into the shoes' of others fosters empathy, without which tolerance and understanding is much harder to come by.

Educational theatre and drama cultivates the imagination, utilising our uniquely human capacity to imagine the real and envisage the possible. The former provides safety, the latter freedom. This dialectic liberates the mind from the tyranny of the present. Educational theatre and drama is the imagination in action.

Rational thought can be coldly functional, but infused by the imagination it changes the way we think: we can reason creatively, humanly. All fields of human thought and action need the creativity that the imagination brings, to go beyond facts and the information already given.

The imagination creates human values – and never before has society so needed to utilise it, to find creative solutions to human problems, to reflect on society and what makes it worth living in, while envisaging new possibilities with a better sense of where we are going and with deep convictions about what kind of people we want to be.

The imagination is a tool for learning involving higher thought processes that can bring about a meticulous comprehension of any subject matter under exploration, enriching the acquisition of new knowledge and concepts.

Democratic citizenship can be served well by participation in educational theatre and drama activity, which is by its very nature both social and collaborative. If our proposal on key competences for lifelong learning seeks to provide personal fulfilment and inclusion, our citizens need to broaden their perspectives into a worldview that asks fundamental questions about what it is to be human. If educational theatre and drama have an overarching subject; it is this. There is a symbiotic relationship between drama and democracy which began in ancient Greece. Antigone, Medea, Orestes, Oedipus et al dramatised human experience and shared the problems of being human. Drama gave voice to those - such as women and slaves or victims and the defeated - who largely went unheard in society. The theatre functioned as a truly democratic public space, a space for reflection that contested the ethos of Greek society. Educational theatre and drama has inherited this tradition and provides a safe public space (safe because it is fictional rather than actual) that is both enactive and reflective, for young people to learn and develop a sense of 'self', socially and psychologically.

The citizens of the future need to be citizens of the world rather than just of a nation state. Educational theatre and drama universalises human experience, transcending borders and nurturing interculturalism, and better equipping us to meet the challenges that globalisation has created. Educational theatre and drama focuses on responding to the changing needs of society; ethically, culturally and interculturally.

The paradigm of educational theatre and drama gives young people their individual and collective voice. There are no right or wrong answers to complex questions, to do with how we live our lives and understand the world. The world is an open question not a closed one with a ready-made answer. In the narrative mode of thinking learners are not imitative but are given the initiative whereby they become stewards of their own learning.

The work we do

The work of the partners of the DICE project uses educational theatre and drama to work alongside young people in order to help them make meaning of their lives and the world around them. In our daily work with children and young adults, educational theatre and drama is used as a means to finding a deeper understanding of many different

questions and complex problems. It creates social awareness and breaks taboos, it creates the space (through performance, participatory drama and workshop activity) to analyse social and moral problems.

Educational theatre and drama is such a powerful tool because it is based on text, image and action: an image lingers in the mind long after the words have been forgotten. We often learn best through doing, and educational theatre and drama is enactive – experienced in the moment. Our work often seeks, in time, to enable the participants themselves to become leaders of the artistic and educational process. We work with children and young people in state / public schools, special schools and in after-school activities. The participants have different social and economic backgrounds and different needs: some are deaf and hard of hearing, others have learning or emotional and behavioural difficulties, and some are often deemed to be 'less able' or academic failures. Daily we re-discover that our work empowers every child because it is inclusive, and that in educational theatre and drama young people stand 'a head taller than themselves'.

A. 5. Introduction to the research methodology

Our research applied a longitudinal cross-cultural design, which basically means that we have been measuring the effect of educational theatre and drama in different cultures (cross-cultural) over a period of time (longitudinal)[6]. We have four important research aspects to keep in mind when the effects on Key Competences are investigated:

1. *Culture:* data was collected from the 'educational fields' of twelve different nations (see Chart 1). North and South, East and West, EU and non-EU are represented in our rich sample.
2. *Type of theatre and drama activity in education:* Three different kinds of groups with different treatments have been examined in every culture (see Charts 1 and 3):
   a. Research groups with 'one-occasion' theatre and drama: in which the effects of theatre and drama as a special few-hours-long occasion (e.g. Theatre in Education programme) have been measured.

6 Please note: all research-related materials in this book, including the parts on methodology and the results, are written in a simplified and easily understandable style and not in the style of scientific publications. The reason for this is that this book is written for a wide group of educational and cultural stakeholders and not just for an academic audience. The results will be published in scientific peer-reviewed journals as well, using the appropriate language, format and mathematical statistical data. We have tried to use only the most necessary scientific terms here and to explain them in the text clearly.

    b. Research groups with 'continuous, regular theatre and drama activities': in which the effects of regular meetings in a 4-month-long period (e.g. youth groups preparing theatre performances) have been measured (a minimum was 10 occasions during the 4 months),

    c. Control groups for both research groups: in which there were no occurrences of theatre and drama activities in education. These groups attended the same school or belonged to a very similar environment as the research ones. When an experiment is conducted for the purpose of determining the effect of a single variable of interest, a control is used to minimise the unintended influence of other variables on the same system. In the DICE research, each research group of youngsters participating in an educational theatre and drama activity was matched with a control group that had as many identical characteristics as possible (in most cases from the same school and the same year), ideally the only difference being that they did not participate in any educational theatre and drama activities.

3. *Age of students:* (13-16) year-old youth were investigated in the research study. We chose an adolescent cohort to investigate because: (1) from the point of view of developmental psychology these are the formative years for attitudes (e.g. self-efficacy beliefs). Attitudes have been somewhat under-emphasised aspects of the key competences, yet adolescents depend on social interaction to form their identities. We were interested in how educational theatre and drama can help in this very sensitive period; (2) the definitions of the key competences are suggestions for "output" and therefore a "guide" for education: older children are closer to this output; (3) one of the aims of education is to prepare for life: this can be best measured among older children; (4) educational theatre and drama activities for this age group differ in European countries: while in some of the countries there is little on offer in the theatre and drama field to this age group (e.g. Norway), in other countries theatre and drama teachers believe that developing competences, attitudes and skills through educational theatre and drama activities is very effective in that age group (e.g. Hungary); (5) reliable measurement of attitudes is more possible in that age group (e.g. questionnaires are not reliable with very young children).

4. *Time:* Two longitudinal investigations were conducted in order to demonstrate some robust effects of educational theatre and drama activities on key competences: a 4-month-long design for continuous and a short-time (1-month-long) design for one-occasion activities **(see Chart 2)**.
Data collection points were as follows:

    a. For groups with one-occasion theatre and drama & their control groups (in the period between 1st October 2009 and 31st January 2010):

> • *Input questionnaires data:* two weeks before occasion,
> • *Observational data:* during occasion,
> • *Output questionnaires data:* two weeks after occasion.

b. For groups with regular theatre and drama activities & their control groups:

> • *Input questionnaires data:* between 21st September and 15th October 2009.
> • *Observational data:* during a theatre and drama activity in the period between 15th November and 15th December 2009,
> • *Output questionnaires data:* in January 2010 (for a few groups: in December 2009).

In summary: for *one-occasion research groups* the research period was four weeks, for *continuous ones* it was 3 to 4 months. Although the measured period was short, it was long enough to indicate if any change occurred, and to prognosticate what effect that specific programme would have on a long-term basis. (If there is a minor but significantly positive change within four months, we can expect that a major change in the same direction would be likely over several years.)

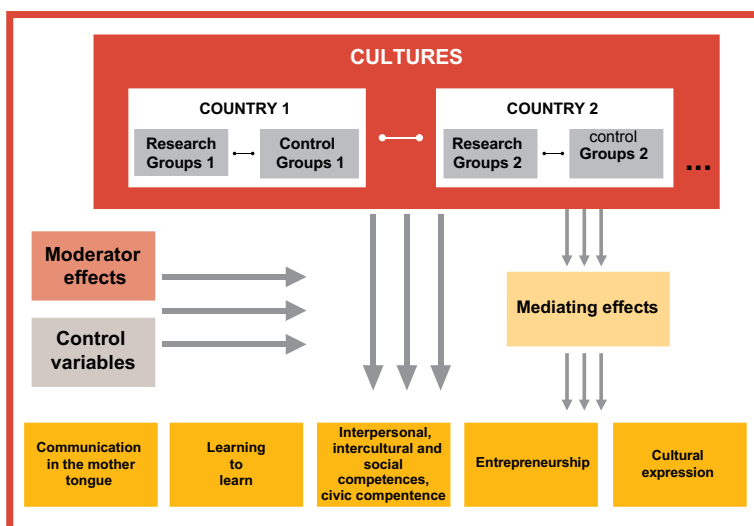Chart 2. Cross-cultural aspect of the research

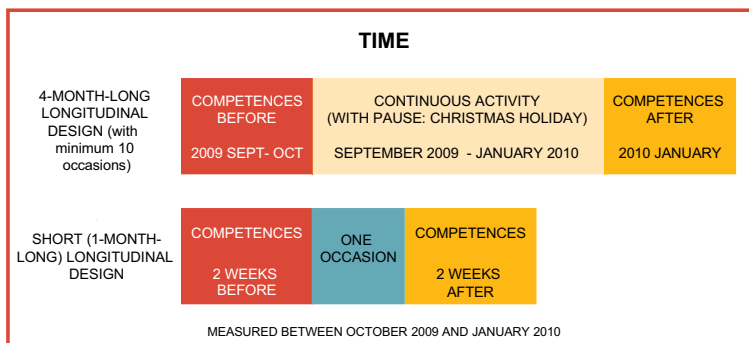Chart 3. Time aspect of the research (longitudinal design)

TIME			
4-MONTH-LONG LONGITUDINAL DESIGN (with minimum 10 occasions)	COMPETENCES BEFORE 2009 SEPT- OCT	CONTINUOUS ACTIVITY (WITH PAUSE: CHRISTMAS HOLIDAY) SEPTEMBER 2009 - JANUARY 2010	COMPETENCES AFTER 2010 JANUARY
SHORT (1-MONTH-LONG) LONGITUDINAL DESIGN	COMPETENCES 2 WEEKS BEFORE	ONE OCCASION	COMPETENCES 2 WEEKS AFTER
MEASURED BETWEEN OCTOBER 2009 AND JANUARY 2010			

Chart 4. Sample structure in a country

SAMPLE IN A COUNTRY

Research groups		Control groups	
Minimum N=160; from minimum 8 groups / classes		Minimum N=160; from minimum 8 groups / classes	
'One occasion' Minimum N=80; from minimum 4 groups/classes	'Continuous Activity' Minimum N=80; from minimum 4 groups/classes	'One occasion' Minimum N=80; from minimum 4 groups/classes	'Continuous Activity' Minimum N=80; from minimum 4 groups/classes

AGE: 13-16-year-old youth
Research and control group pairs from the same school or from similar environment

Chart 5. Sample structure in a country

MONITORING EDUCATIONAL THEATRE AND DRAMA

Unique qualitative studies by countries

Self-report

Programme leaders' description of theatre and drama activities

About Five Key Competences and other characteristics of children

About characteristics of theatre/drama activities

Teachers' perception

Objective observation

Professional judgement of drama descriptions

Surveys of European theatre and drama experts

B **Results**

B.0. Descriptive statistics

Number of students measured

In the DICE research, there is data from 4,475 students altogether, with almost equal numbers of boys and girls. 1,080 different variables were measured per student.[7]
  • 938 stated that they regularly participated in educational theatre or drama activities before the DICE project; most of these belonged to the research groups.

This means exactly **4,833,000** cells of unique data, several hundred thousands of connections, interactions and relationships to be examined among variables, a statistical output file of 1,23 GB (just the very first and basic analyses only), and the potential for several dozen publications in the coming years. What appear to be the most important findings are presented below for the first time.

7 Including originally measured variables and calculated ones, e.g. average scores of scales.

Main characteristics of the educational theatre and drama programmes measured

111 different educational theatre and drama programmes have been measured, of which

- 56 were continuous and 55 were one-occasion.
- 83 groups were homogeneous (students were from the same class) and 25 were heterogeneous (students were from different classes or schools) (data missing in 3 cases).
- The distribution of the drama programmes among the countries was the following: Czech Republic: 4, Hungary: 26, Netherlands: 6, Norway: 7, Palestine: 13, Poland: 10, Portugal: 6, Romania: 7, Serbia: 7, Slovenia: 12, Sweden: 7, United Kingdom: 6.

In summary, the sample is not only large but also very heterogeneous and therefore representative of today's educational theatre and drama activities in Europe and Palestine.

B.1. Effect of educational theatre and drama on key competence "Communication in the mother tongue"

Analysing the input measurement data, when those students who regularly participate in educational theatre and drama activities are compared with those who do not, significant differences are found on the following scales:

Please note: due to the vastness and complexity of the data, covering all the research results will take several hundred (or more likely several thousand) pages. The results shown here are a selection only; publishing all the results in a detailed form will be the task of the coming years.

Communication in the mother tongue

Communication in the mother tongue is the ability to express and interpret thoughts, feelings and facts in both oral and written form (listening, speaking, reading and writing), and to interact linguistically in an appropriate way in the full range of societal and cultural contexts — education and training, work, home and leisure, according to their specific needs and circumstances.

Recommendation of the European Parliament and of the Council, of 18 December 2006, on key competences for lifelong learning

Scale	Some typical questions from the scale	Mean score of those who participate in drama	Mean score of those who do NOT participate in drama	Difference	Significance
Reading and understanding (self assessment)	"I easily understand school textbooks." "I like reading." "I understand metaphors, symbols." "It is easy for me to read a newspaper."	3.8459	3.6352	4.21 %	p<0.000
Confidence in communication (self assessment)	"I am shy about speaking to a big audience" (score inversely counted) "I dare to express my opinion."	3.7929	3.5499	4.86 %	p<0.000
Humour (self-assessment)	"I have a sense of humour."	4.2508	4.0723	3.57 %	p<0.000

Table 1. Students who regularly participate in educational theatre and drama activities compared with those who do not, according to key competence "Communication in the mother tongue"

In summary, it seems that those students who practise educational theatre and drama activities regularly feel more confident in reading, understanding tasks, communication and humour.

Significance, p value:

in statistics, a result is called statistically significant if it is unlikely to have occurred by chance. The significance level is expressed by the p value, and the less it is, the more significant the result is. The p value should be multiplied by 100 and read as a percentage, e.g. when p = 0.02 it means that the possibility of the result having occurred by chance is 2%. In social science, a p < 0.05 is considered to be significant and p < 0.01 is considered to be strongly significant. When p<0.000, it is a very strong significance and it means that it is very unlikely that the result was caused by chance, and very likely that it was caused by the effect we were measuring. We will not repeat this point for each of the tables, but please note that such strong significance is very rare in social sciences, so most of the discussed results have an extremely high significance.

B.2. Effect of educational theatre and drama on key competence "Learning to learn"

Analysing the input measurement data, when those students who regularly participate in educational theatre and drama activities are compared with those who do not, significant differences are found on the following scales:

Learning to learn

'Learning to learn' is the ability to pursue and persist in learning. Individuals should be able to organise their own learning, including through effective management of time and information, both individually and in groups. Competence includes awareness of one's learning process and needs, identifying available opportunities, and the ability to handle obstacles in order to learn successfully. It means gaining, processing and assimilating new knowledge and skills as well as seeking and making use of guidance. Learning to learn engages learners to build on prior learning and life experiences in order to use and apply knowledge and skills in a variety of contexts – at home, at work, in education and training. Motivation and confidence are crucial to an individual's competence.

Recommendation of the European Parliament and of the Council, of 18 December 2006, on key competences for lifelong learning

Scale	Some typical questions from the scale	Mean score of those who participate in drama	Mean score of those who do NOT participate in drama	Difference	Significance
Creativity (self assessment)	"Using my imagination is important to me" "Being creative (e.g. experimenting, working in different ways) is important to me"	3.6045	3.2586	6.9 %	p<0.000
Enjoying school	"My lessons are interesting" "I enjoy coming to school" "My teachers know how to teach me best"	3.2968	3.1713	2.51 %	p<0.000
How they feel at school	A ladder of 1-10, where 10 is that they feel great at school most of the time, and 1 is that they feel terrible most of the time	7.21	6.91	6 %	p<0.000

Table 2. Students who regularly participate in educational theatre and drama activities compared with those who do not, according to key competence "Learning to learn"

In summary, it seems that those students who regularly participate in educational theatre and drama are more likely to feel that they are creative, like going to school more than their peers, and enjoy school activities more.
The effect of educational theatre and drama on creativity seems obvious and the research results support this hypothesis.

The following chart illustrates the changes in the input and output scores of the control and the research groups on a self-assessment scale of creativity among students who have not participated in educational theatre and drama before. Difference is significant ($p < 0.028$).
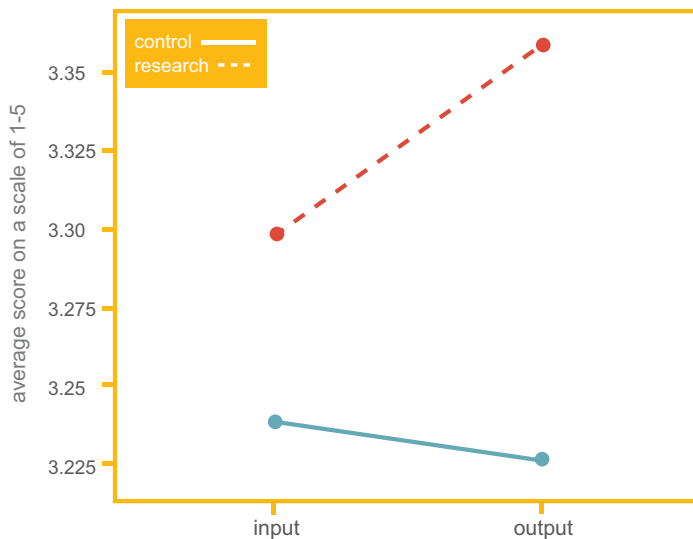
Chart 6 . Differences between the research group (who have participated in educational theatre and drama activities) and the control group (who have not) in the self-assessment of creativity among students who had not participated in educational theatre and drama before.

In a few cases theatre and drama activities can even have an effect on the average grades of students (including all grades and not just humanities). Such a case is seen in the continuous groups in Palestine, where grades are calculated in percentages. The following chart speaks for itself. Given that the time which elapsed between the input and output measurements was just about three months, we can imagine the long-term effect of educational theatre and drama activities on the school performance of students.
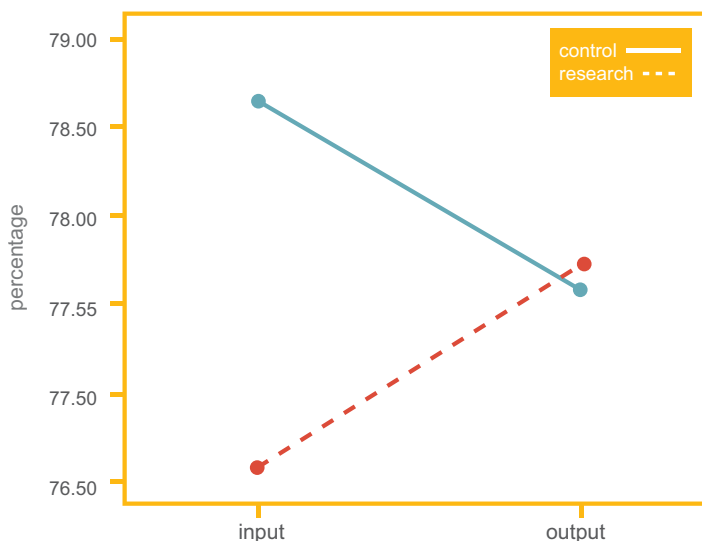

Chart 7. Differences between the Palestinian research group (who have participated in educational theatre and drama activities for three months) and the control group (who have not) in the average grades of students.

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B.3. Effect of educational theatre and drama on key competence "Interpersonal, intercultural and social competences and civic competence"

Analysing the input measurement data, when those students who regularly participate in educational theatre and drama activities are compared with those who do not, significant differences are found on the following scales:

Scale	Some typical questions from the scale	Mean score of those who participate in drama	Mean score of those who do NOT participate in drama	Difference	Significance
Empathic perspective-taking	"I sometimes try to understand my friends better by imagining how things look from their perspective." "I believe that there are two sides to every question and I try to look at them both."	3.7108	3.5845	2.53 %	p<0.000
Empathic concern	"I often have tender, concerned feelings for people less fortunate than me." "When I see someone being taken advantage of, I feel kind of protective towards them."	3.9145	3.7072	4.15 %	p<0.000
Problem-solving	"I resolve most everyday problems." "I resolve most emotional upsets that come up." "I try to think of different ways to solve problems."	3.7542	3.6419	2.25 %	p<0.000
Coping with stress	"I make a plan for action." "I try to analyse problems that happen so that I can understand them better."	3.6978	3.6420	1.12 %	p < 0.052

R E S U L T S

Scale	Some typical questions from the scale	Mean score of those who participate in drama	Mean score of those who do NOT participate in drama	Difference	Significance
Dominance in the class	"How do you judge your situation in the class? Choose the most appropriate description. 1. I'm a dominant person in a circle of pupils in the class. 2. I'm not a dominant person, but there's a circle of people I belong to. 3. I don't belong to any circles, but I do have friends. 4. I'm usually on my own."	2.17	2.11	1.2 %	p < 0.020
Social acceptance of out-group (most antipathic ethnicity, minority or nation)	"1. I'd have no problem living in the same country with them. 2. I'd have no problem if they were my neighbours. 3. I'd have no problem if they sat at the same desk as me in the class. 4. I'd have no problem helping them if they were in trouble in the street. 5. I'd have no problem being friends with them. 6. I'd have no problem having a girlfriend / boyfriend who is…"	3.1865	2.5051	13.63 %	p < 0.000
Social acceptance of an unknown nation		3.3333	2.7183	12.3 %	p < 0.000
Willingness to vote	"If you could take part in democratic decision making and had a chance to express your opinion; and could go and vote about certain issues, would you go and vote • in your school (e.g. Students' Union/school council election)? • in your town (e.g. the election of the local government)? • in your country (e.g. general elections)? • in the election of the Arab League Representatives?"	0.6611	0.5831	7.8 %	p < 0.000
Active participation	"Can you imagine yourself • campaigning or arguing for an important public issue • expressing your opinion in the papers, in the radio or on TV on a certain issue • campaigning as an activist for some humanitarian matter"	0.6420	0.5268	11.5 %	p < 0.000

Table 3. Students who regularly participate in educational theatre and drama activities compared with those who do not, according to key competence "Interpersonal, intercultural and social competences and civic competence"

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To sum up, students who regularly participate in educational theatre and drama activities are more empathic: they show concern for others and they are more able to change their perspective. They are better in problem-solving and coping with stress. They are more likely to be a central character in the class. They are very significantly more tolerant towards both minorities and foreigners, and they are much more active citizens: they show more interest in voting or participating in public matters.

The following chart is a vivid illustration of how the social acceptance of the out-group changes in the research group and in the control group.
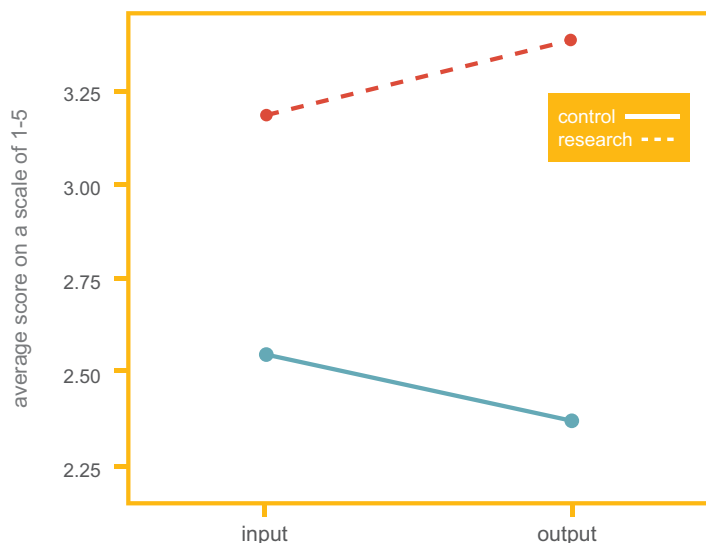

Chart 8. Differences between the continuous research group (who have participated in educational theatre and drama activities) and the control group (who have not) in the acceptance of the out-group (the least accepted nationality or minority in the country).

B.4. Effect of educational theatre and drama on key competence "Entrepreneurship"

We created two scales to measure this competence: one was a self assessment of entrepreneurship and innovation and the other was measuring the level of dedication to achieve broader goals in the future. Analysing the input measurement data, when those students

Entrepreneurship

Entrepreneurship refers to an individual's ability to turn ideas into action. It includes creativity, innovation and risk taking, as well as the ability to plan and manage projects in order to achieve objectives. This supports everyone in day to day life at home and in society, employees in being aware of the context of their work and being able to seize opportunities, and is a foundation for more specific skills and knowledge needed by entrepreneurs establishing social or commercial activity.

Recommendation of the European Parliament and of the Council, of 18 December 2006, on key competences for lifelong learning

who regularly participate in educational theatre and drama activities are compared with those who do not, significant differences are found on both of these scales:

Scale	Some typical questions from the scale	Mean score of those who participate in drama	Mean score of those who do NOT participate in drama	Difference	Significance
self-assessment of entrepreneurship and innovation	"I am able to see opportunities, or possibilities of changing things, where others can't or don't want to" "I am able to overcome my fear of danger if I see an opportunity"	3.7021	3.5393	3.26 %	p<0.000
level of dedication	"Do you think you have the talent for, and are you interested in doing, the following things when you are an adult, in the FUTURE? • running your own business • inventing new things	3.3624	3.2431	2.39 %	p<0.000

Table 4. Students who regularly participate in educational theatre and drama activities compared with those who do not, according to key competence "Entrepreneurship"

To sum up, students who regularly participate in educational theatre and drama activities are more innovative and entrepreneurial, and show more dedication towards their future and have more plans.

B.5. Effect of educational theatre and drama on key competence "Cultural expression"

Cultural expression

Appreciation of the importance of the creative expression of ideas, experiences and emotions in a range of media, including music, performing arts, literature, and the visual arts. Self-expression through the variety of media […]. Skills include also the ability to relate one's own creative and expressive points of view to the opinions of others. […] A strong sense of identity is the basis for respect and [an] open attitude to diversity of cultural expression.

Recommendation of the European Parliament and of the Council, of 18 December 2006, on key competences for lifelong learning

Analysing the input measurement data, when those students who regularly participate in educational theatre and drama activities are compared with those who do not, significant differences are found on the following scales:

Scale	Some typical questions from the scale	Mean score of those who participate in drama	Mean score of those who do NOT participate in drama	Difference	Significance
attending classic cultural events	"Watch/attend an exhibition" "Watch/attend a theatre performance" "Listen to a concert of traditional music"	3.4078	2.9535	9.09 %	p<0.000
going to cinema	"Watch films or video at a cultural center or organization"	4.4528	4.3727	1.6 %	p<0.014
attending popular cultural events	"Listen to a concert of popular music" "Watch/attend a dabkeh or other dance performance""	3.7875	3.4579	6.59 %	p<0.000
participation in arts activities	"attend a craft workshop?" "attend a film course?" "attend an orchestra?" "attend a youth theatre?" "create your own magazines?"	2.0668	1.4084	13.17 %	p < 0.000
participation in new media and music	"mix music?" "make your own videos?" "make music together?" "make songs?"	2.2200	1.8714	7.00 %	p < 0.000
writing	"write short stories/novels/ poems/plays?" "write your own diary (daily journal)?"	2.6119	1.7901	16.44 %	p < 0.000
participation in visual arts	"draw or paint?" "work with your hands (arts and crafts)?" "take photographs?" "make digital art?"	2.8861	2.4990	7.74 %	p < 0.000
participation in performing arts	"dance?" "attend dabkeh or dance group?" "put on plays?"	2.7005	1.9333	15.34 %	p < 0.000
importances	"how important is culture for you?"	7.93	7.21	7.2%	p < 0.000

Table 5. Students who regularly participate in educational theatre and drama activities compared with those who do not, according to key competence "Cultural expression"

These results can be easily summarised. Attending educational theatre and drama activities has a strong transfer effect to other genres of arts and culture, and not just performing arts, but also writing, making music, films, handicrafts, and attending all sorts of arts and cultural activities. It is important to note that these results also underline educational theatre and drama's community-building effect: some of the largest differences are measured on cultural activities that are done in a group.

B.6. Effect of educational theatre and drama on key competence "All this and more"

Let us take a look at whether participation in educational theatre and drama activities has an effect on the quality of life in general and on young people's engagement in a wide range of activities and social relations. The table below shows how much time on average students spend on various activities. We compared those students who stated that they participate regularly in theatre and drama activities with those who did not. Where the difference between the two groups is significant (p<0.05 or usually better), it clearly indicate which group had a higher mean.

Although some of the measured changes presented in this book are relatively slight (while some changes are remarkably large), it is important to consider that only 1-4 months have passed between input and output measurements. One can imagine the effects of continuous access to educational theatre and drama throughout the entire school system: if educational theatre and drama, as we show here, can influence all of the competences in a measurable way even within a few months, it can be assumed that its impact could be much greater in the long term.

Do you regularly participate in drama or theatre workshops or lessons? (input measurement)	NO		YES
IN A DAY / HOURS	**Hours**		**Hours**
sleeping	8.0083	>	7.9061
relaxing	1.712	>	1.704
eating	1.447	<	1.524
in school	6.317	<	6.403
learning outside of school	1.575	<	1.603
reading (not compulsory material)	0.760	<	0.971
watching TV	1.719	>	1.612
surfing the internet	1.797	>	1.770
playing computer games	0.898	>	0.773
doing housework	0.885	<	0.973
playing, talking, spending time with your family members	1.652	<	1.840
taking care of younger brother(s)/sister(s)	0.496	<	0.579
IN THE LAST WEEK / HOW MANY TIMES	**occasions**		**occasions**
meeting friends	4.34	<	4.48
doing sports	2.82	>	2.71
spending time with your hobby	3.35	<	3.40
watching , listening to or reading about the news	3.08	<	3.23
doing things for my family (e.g. the shopping, organising supplies, fixing things, making clothes)	2.48	<	2.70
doing a part-time job	0.28	<	0.39
being creative (e.g. making music, writing, acting, dancing etc)	1.95	<	3.00

IN THE LAST MONTH / HOW MANY TIMES	occasions		occasions
going to the cinema	1.01	<	1.26
going to the theatre, exhibitions or museums	0.50	<	0.96
visiting shopping centres/markets	4.59	<	5.06
going to pubs, discos, concerts	1.25	<	1.31
praying, going to church/mosque/synagogue	5.43	<	6.64
doing things on the street	6.61	<	6.62
hiking/ going for walks/biking	5.92	<	6.46

Table 6. Comparison of daily activities of students who regularly participate in educational theatre and drama programmes and students who do not

The most significant points to be drawn from these findings are that young people who regularly participate in theatre and drama activities spend more time in activities which have a social dimension – both at home (e.g. with their families, taking care of younger siblings) and in the wider community (e.g.they are more likely to have a part-time job, to spend time with friends, and more frequently go to arts venues and events). In contrast, they spend less time watching TV or playing computer games.

B.7. General results of Palestine

The effects of educational theatre and drama for Palestinian school children we have measured ensue the same pattern for the entire sample of the 12 participating countries. Most of the results published in the DICE research are based on the first (input) measurement of the children's questionnaire, comparing the self-assessment of children who regularly do educational theatre and drama with those who don't.

The complex research design of DICE offers educators and artists a treasure of information about our children and our education system. Surely, it will take time and further analysis before we have

External Experts Assesment
I found the material from Palestine extremely interesting. Descriptions of both TIE and drama lessons were quite extensive and it was possible to get a real sense of the quality of the work. There was an impression that the programmes were making a real impact on students' lives, as they grew up in challenging environments. The significant themes and ideas that were the focus of the drama clearly resonated with the real-life situations of the participants, but were sufficiently distanced to allow exploration of sensitive issues. The work was vividly described, and usually culminated in a presentation to parents. These presentations were clearly very important to give focus and affirmation to the groups' efforts and to raise awareness of the possibilities and function of drama. There were clear accounts of the achievements of the students and the effect of the work on the audience.
Ms. Cecily O'Neil (UK)

tangible comprehensive details of the results. Nonetheless, we will discuss the most obvious results as in the foregoing summary; they are striking results, collected from our Palestinian database. The compilation of these results is done in cooperation with the DICE research team, and then interpreted by TDP. At TDP, we are not socail researchers ourselves; more detailed results are to come in the coming years. Moreover, DICE wouldn't be a scientific and trustworthy study if it would not come across the special social and political situation in Palestine.

The children who regularly do drama show the same results in Palestine as their peers from abroad. That alone gives enough evidence for the importance of drama in education. Likewise it shows to all those educators who felt that drama and educational theatre are mere tools of entertainment and irrelevant to 'real' education that they were wrong and that time is imminent to give way to the interactive power drama imparts.

Palestine is a special place; the ongoing humanitarian and economic crises seems to be affecting our youth in key competences. We have found that during 3-month drama work and research in the autumn of 2009 in Gaza, the boys and girls in our control groups (the children who did not participate in drama but who were part of the research) lost some of their grip on basic skills, their motivation to be an active part of the community, their coping mechanisms for dealing with the many problems they encounter, and their perception of the future. Rather than increasing the grip on these skills, drama was able to stabilize further loss, and in some cases drama was not able to compensate for lost ground. A more integrated innovative approach to education is needed apart from the essential requisite to end the Israeli occupation.

It should be noted that the research covered a period of 3 months; the positive effects of drama might be multiplied if drama would really be a structural part of school life in Palestine. Drama might boost children's resilience, especially those who are losing their grip pending adequate time; better still, pending educational authorities' allocation of adequate time. Simply put, traditional education tools can't do the job.

On the whole, there are simply striking positive effects of drama that came out of our research. We will summarize some of the challenging results as well as the sheer positive effects of drama and educational theatre in Palestine.

We will concentrate on some striking results we could collect from our research database on this short notice based on three themes:
-competences related to individual growth of children and their social skills.
-competences related to school and family life.
-competences related to the community.

Competences of individual and social strength:

Positive results
Girls feel less lonely because of drama. In comparison, girls who didn't do drama feel more lonely after the same 3 months of the project. See chart 9.
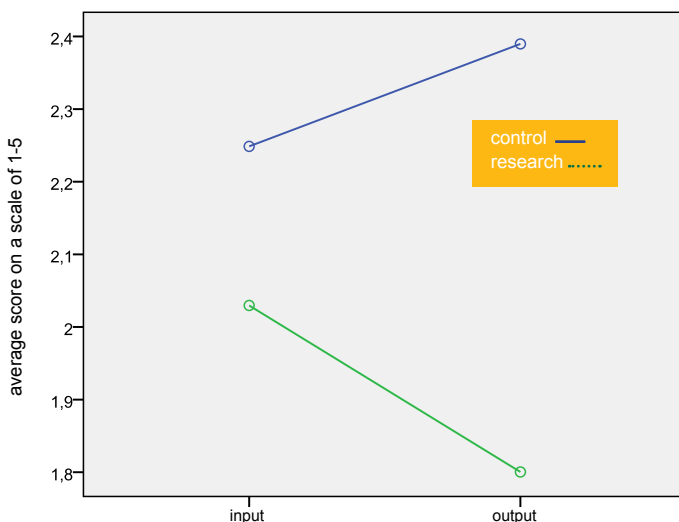
Chart 9. Difference between the research group (girls) who have participated in educational theatre and drama and control group (girls) who have not, in feeling lonely.

- Girls show signs of increasing independency because of drama, more than their non-drama peers; they increase time spent on doing things in the street. They have the tendency to read or watch the news more. And whilst they spend more time sleeping than before, they also go out more to the park or to music events; girls without drama do not increase their time spent on these activities.
- Boys are more inclined to look for part time jobs filling some of their free time. They spend less time in the street believing that they can use their time more efficiently. Boys also show the tendency to spend more time on creative cultural activities like writing, singing, and making theatrical scenes. Boys without drama show a decline in spending time on this.

- Both boys and girls are more aware of the danger of bullying among youngsters. Boys have developed a strong significant increase in sensitivity to bullying in comparison to their peers who didn't do drama. See chart 10
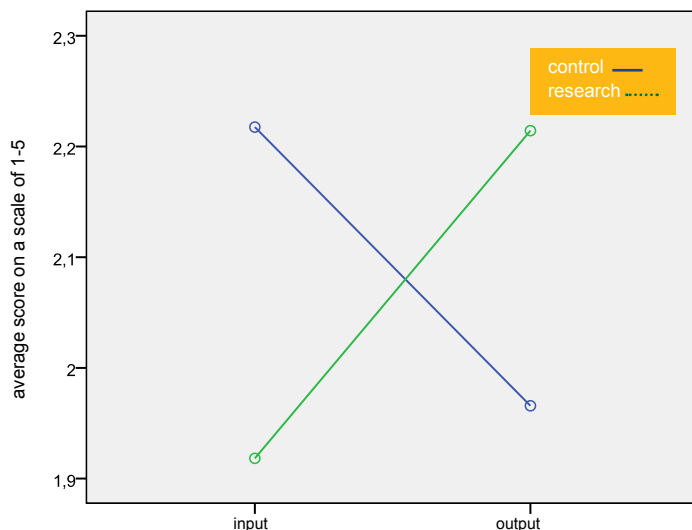

Chart 10. Difference between the research group (boys) who have participated in educational theatre & drama activities and control group (boys) who have not, in sensitivity to bullying.

- Boys show a strong tendency to feel more creative related to social and problem solving skills than the boys without drama, who also increased their creativity, but at a much lower level. See chart 11.
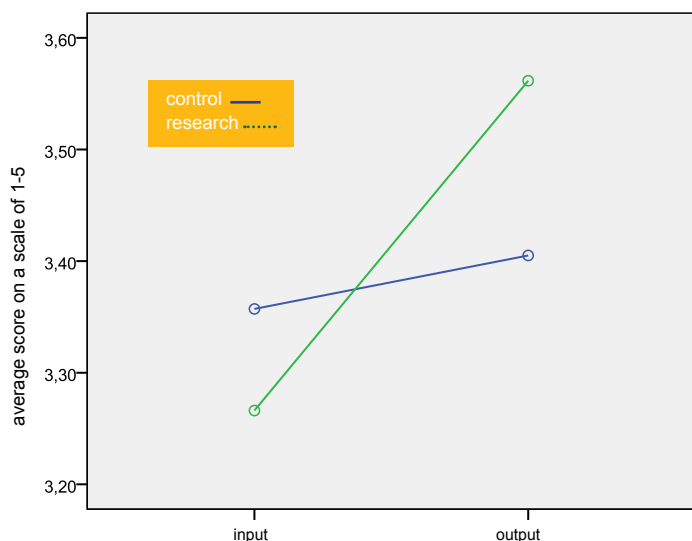

Chart 11. Difference between the research group (boys) who have participated in educational theatre & drama activities and control group (boys) who have not, in problem-solving skills and creativity.

Challenging results

- As opposed to girls, boys felt lonelier after the 3 months of our project. Drama was not able to change this fact. Boys in our control group said they spent considerably less time on praying than before. But for the boys in the drama classes this decline was minimal. Boys as well as girls felt less able to deal with situations of stress. Here, drama could not reverse the trend. One could say that children's feeling of losing strength in coping with stress illustrates the social and political context in which we are working.

Competences related to home and school:
Positive results

- Girls participating in the 3-month drama work share problems with their families more. Girls without drama don't. See chart 12.

Chart 12. Difference between the research group (girls) who have participated in educational theatre & drama activities and control group (girls) who have not, in sharing problems with their families.

- Girls are also increasingly willing to share problems with their teachers. The non-drama girls also show increased confidence in their teachers but to a much lesser degree. See chart 13.
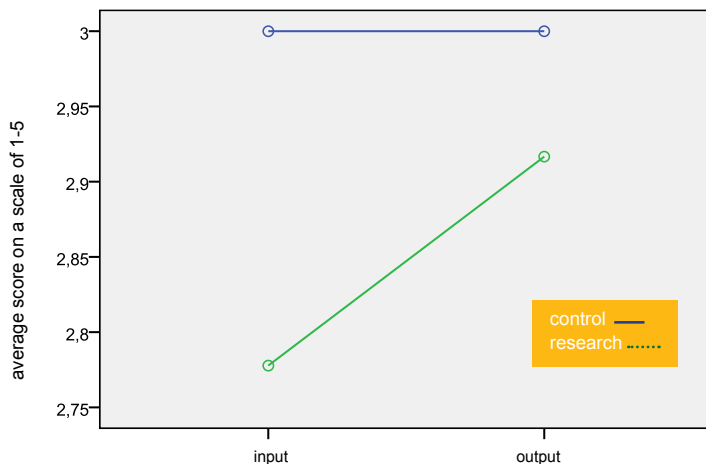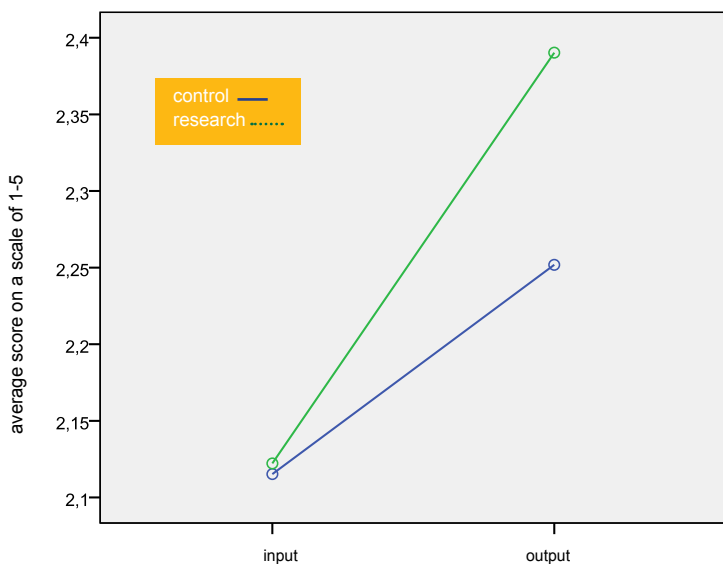

Chart 13. Difference between the research group (girls) who have participated in educational theatre & drama activities and control group (girls) who have not, in sharing problems with their teachers.

- Both boys and girls tend to feel better at school because of drama. Especially the girls following 3-months of drama show a strong, significant increase while boys and girls without drama tend to feel worse. See chart 14 about the girls' self assessment.
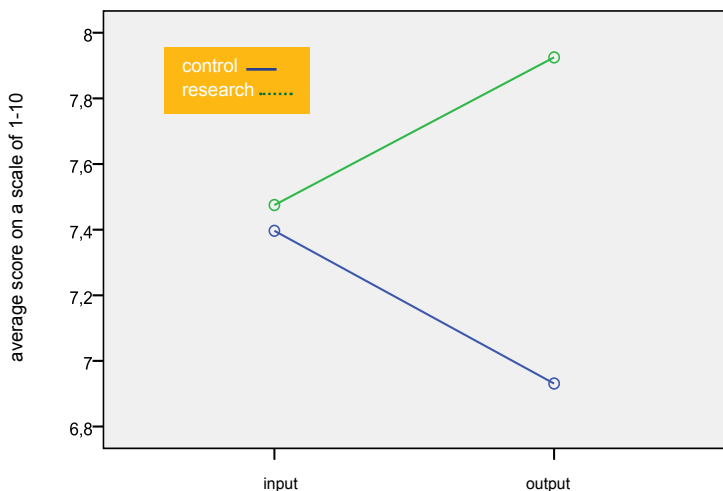

Chart 14. Difference between the continuous research group (girls) who have participated in educational theatre & drama activities and control group (girls) who have not, in feeding better at school.

R E S U L T S

- Both boys and girls get higher grades in school because of drama. Palestine is the only country from among the research partners where school grades showed increase because of drama as a statistically significant result. See chart 8 on page 26

Challenging results

- In line with a materializing trend, drama is able to slow the decline of children's loss of skills or hope and confidence. Answering the question "how do you judge your situation in class", boys show the tendency to feel worse. Boys who did drama sustained their confidence. See chart 15.
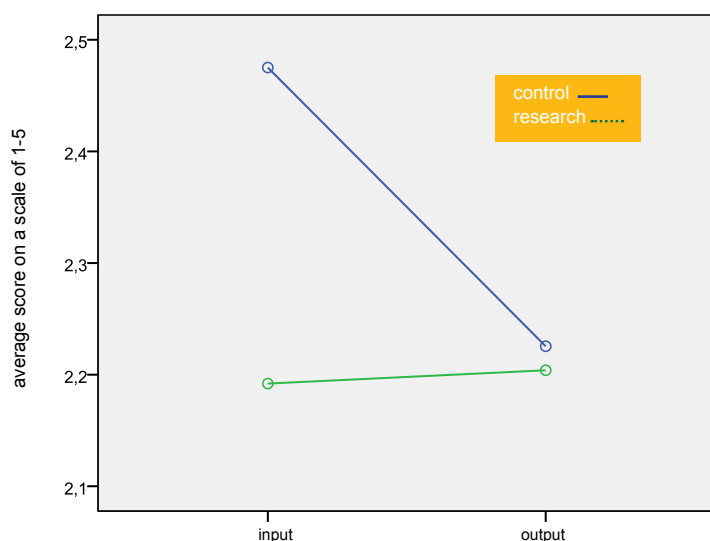
Chart 15. Difference between the research group (boys) who have participated in educational theatre & drama activities and control group (boys) who have not, in situation in class.

- Although boys as well as girls feel better at school and have higher grades after 3 months of drama, they enjoy their regular lessons less. One could say that this is the educational context in which we work.

Competences related to community participation

Positive results

- Palestinian children (boys and girls) who ever did drama are more likely to go voting than the children who never did drama.

- Children who regularly do drama have a stronger feeling of belonging to the community than their non-drama peers.

- Children who regularly do drama accept minorities more. Children who did drama for the first time, during the 3 months of our research, showed a tendency to accept minorities more, while children in the control group showed a challenging loss of tolerance to minorities. See chart 16 for the result of children doing drama for the first time and their acceptance of minorities:
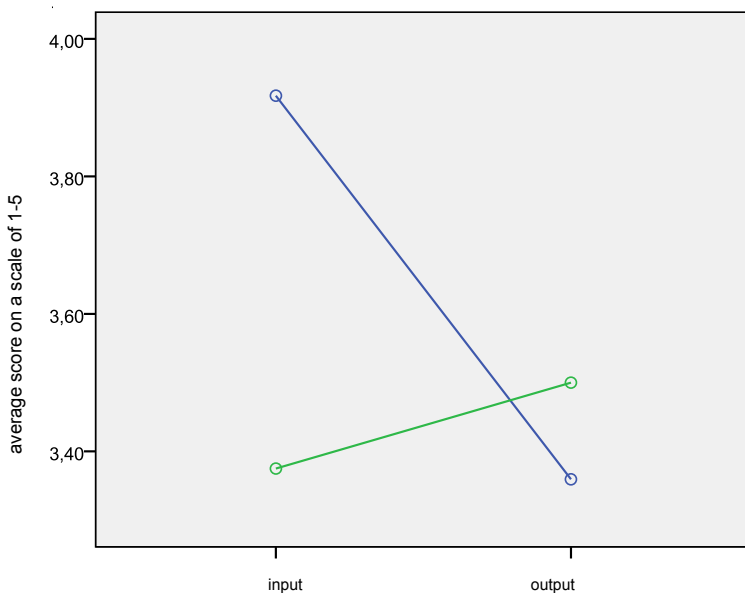
Chart 16. Difference between the research group who have participated in educational theatre & drama activities and control group who have not, about acceptance of minorities.

Challenging results

- Drama is able to slow the decline of children's loss of skills or hope and confidence. Where children lost part of their tolerance to accept people of unknown backgrounds as part of their community or personal life, the drama girls kept up their lenience. See chart 17.
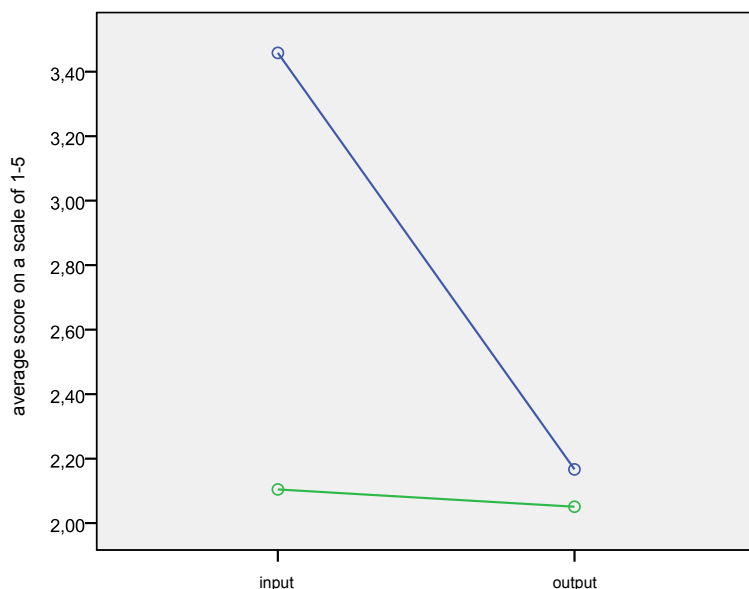
Chart 17. Difference between the research group (girls) who have participated in educational theatre & drama activities and control group (girls) who have not, about tolerance towards the "other".

- Also concerning children's wish to be involved in active community participation, drama was only able to slow the decline of girls' willingness to participation. For the boys, drama could not revoke the decline.
- For children's dedication to the future, there is a clear and challenging decline that drama couldn't reverse or stabilize, another indication of the context in which educators and artists are working in Palestine.

B.8. Teachers' assessments

Class teachers were requested to assess all students (research and control) along the five competences. Analysing the input measurement data, when the assessment of those students who regularly participate in educational theatre and drama activities are compared with those who do not, significant differences are found on the scales of all five competences: see table 7.

To put it simply: **teachers observe that those students who have participated in educational theatre and drama activities become significantly better in most competences than those students who have not.**

Although the measured changes are slight, it is important to remember that only 1-4 months have passed between input and output measurements. If there was continuous access to educational theatre and drama programmes and given the same tendency of impact, students' scores could be expected to improve considerably over a longer period.

Scale	Some typical questions from the scale	Mean score of those who participate in drama	Mean score of those who do NOT participate in drama	Difference	Significance
Communication	S/he always dares to express her/his opinion. S/he talks a lot. S/he is shy about speaking to a big audience. (interpreted inversely) S/he can express her/his opinion clearly.	3.5790	3.4018	3.54 %	p<0.000

Learning to learn	S/he easily understands school textbooks. Her/his long term memory is good. His/her overall academic achievements. S/he recognises correlations and can draw conclusions. S/he can observe carefully. S/he spends a lot of time studying because s/he likes to study. S/he tends to try out different solutions. S/he is motivated and enthusiastic when s/he is working. S/he has lots of ideas of her/his own. S/he knows her/his own strengths.	3.6702	3.4892	3.62 %	p < 0.000
Social and civic competence	S/he accepts others' opinions. S/he is co-operative with adults. S/he manages conflicts well. S/he is patient and has the capacity to wait for something. S/he is helpful. S/he co-operates well with her/his fellow students. S/he is able to ask for help if s/he has a problem, and can express her/his problem.	3.8534	3.7175	2.72 %	p<0.000
Entre-preneurship	S/he is interested in the world of business. S/he is able to spot opportunities that peers miss. S/he is able to have her/his own dreams about improving the world. S/he is able to refine her/his ideas if that helps to persuade more people to work with her/him.	3.4809	3.3279	3.06 %	p < 0.000
Cultural awareness	S/he likes to watch and participate in artistic activities. S/he likes to participate in drama activities. S/he is interested in visual culture and visual arts. S/he likes and enjoys music. Her/his way of self-expression is rich in emotion. S/he is open to personal, emotional, and aesthetic experiences. She expresses her/himself well non-verbally.	3.8580	3.4928	7.3 %	p < 0.000

Table 7. Students who regularly participate in educational theatre and drama activities compared with those who do not, according to the assessment of their teachers on five key competences

B.9. General results of the observations

As classroom observation studies show,[8] in spite of the fact that students are usually anxious if others see what they are doing, they want to share their experiences with each other. However, due to their anxiety, they rarely initiate such conversations and tend not to volunteer to speak during class discussions, talking only when called on by the teacher. According to E. C. Wragg's findings,[9] for the most part the teacher initiates all classroom procedures without being aware of the fact that only a small number of children take an active part in these procedures. Only the so called 'main core', the 7-8 children sitting in the centre of the classroom, respond.

Traditional teaching methods, using frontal teaching techniques, do not create interactive learning environments. In this type of situation the role of a student is of a passive participant, while the teacher has the role of an active instructor. As Novak explains,[10] traditional teaching is concerned with the teacher being the controller of the learning environment. Power and responsibility are held by the teacher who regards students as having 'knowledge holes' that need to be filled with information.

This traditional practice is in contrast to child-centred approaches, where the students are in control of their own learning and power and responsibility are the students' concern. Learning in this situation may be independent, collaborative, cooperative and competitive. Educational theatre and drama, as a pedagogical method, is at the heart of this child-centred tradition. Instead of looking at children as inactive entities, it tries to support their active creator role in the learning process. In order to achieve this goal during educational theatre and drama work the educators use various pedagogical-methodological tools and work forms such as teacher presentation, student presentation, theatre performance, class discussion-debate, class drama work, small group discussion-debate, small group drama work, pair work and individual work by students. Educators or drama pedagogues try to encourage discussion, and act as mediators of activities and processes in which the participating children play an active role.

8 See items in the attached bibliography
9 Wragg, E.C. (1994) *An introduction to classroom observation*, Routledge,. p. 113.
10 Novak, J. (1998) *Learning, Creating and Using Knowledge: Concept Maps as Facilitative Tools in Schools and Corporations*; Lawrence Erlbaum Associates, Inc; New Jersey, pp 24-25.

In the DICE project, 110 different educational theatre and drama programmes have been observed by two previously-trained, independent observers, with exactly the same observation sheets in all countries. Each one of these observations can and will be analysed independently.

B.10. Most important findings from the analysis of the drama descriptions

The leaders of each investigated educational theatre and drama programme were requested to fill in a self-assessment questionnaire, part of which was the following question:

"What kind of methods do you use during the drama activities? List them briefly. Please also describe briefly the pedagogical, educational, social and aesthetic goals of your work. (Max. 1 page)"

The answers to this question in all of the 111 investigated educational theatre and drama programmes have been analysed with both qualitative and semi-quantitative methods. In this way we could compare the differences and similarities of 111 different educational theatre and drama programmes from twelve different countries. Surprisingly, we found many more similarities than differences. This is in contrast with previous experiences[11] of the analysing researcher; in different educational fields many more inconsistencies, anomalies and misunderstandings can be found among the representatives of the field.

Previous research results	DICE description-analysis results
Misunderstanding of the main terms	Well-defined, common terms, agreement in their meaning
Lack of common objectives	Common objectives, clear goals
Pedagogical-methodological anomalies	Common knowledge of pedagogical-methodological tools
Lack of international experiences	Curiosity towards international best practice, networking

Table 8. Characteristics of previous research results vs. drama descriptions analysis in DICE

The analysis started with coding of thematic issues, common themes appearing in all texts (coding was supported by use of the scientific software, Atlas.ti). At the next level of analysis these thematic issues were narrowed down and channelled into ten main

11 Some examples: (1) *"Quality public education against segregation" REI-project, results of the first monitoring study*, Open Society Institute, Budapest, 2005. (2) *Integration in practice* (ed. Szilvia Németh), External evaluation of the work of National Integration Network. National Institute for Public Education, Budapest, 2006.; (3) *The model schools of inclusive education.* Qualitative research, 2009-2010. National Institute for Educational Research and Development. Manuscript.

categories. The frequency of appearance of these issues in the drama descriptions shows the overall "prestige" of the topics: the most frequent is considered to be the most important one, according to the authors of the original texts. So it can be stated that much more emphasis is put onto the theoretical issues of drama-work (aims, contents, results) than on such operational topics as evaluation of children's performance or dissemination of their experiences (national and international tours).

Main themes	Frequency of appearance
1. Aims of educational theatre and drama work	98
2. Focus of educational theatre and drama work	78
3. Methods used at educational theatre and drama work	80
4. Results of educational theatre and drama work	61
5. Content of educational theatre and drama work	54
6. Consequences of educational theatre and drama work	44
7. Characteristics of children participating	28
8. National tours	18
9. International tours	7
10. Evaluation of children	3

Table 9. Themes common in all drama descriptions

B.11. Most important findings from key experts' survey – linking Results to Recommendations

In 2009 we announced a call for educational theatre and drama experts from all around Europe to share their thoughts and assess the situation of educational theatre and drama in their countries. Participation was open to any such expert: an online survey was placed on the project's website with nineteen open questions, ranging from the prestige of drama teachers in schools to how authorities could improve the situation of educational theatre and drama.

Altogether **61** experts answered the call. Besides countries from the consortium, we were honoured that experts from Croatia, Finland and France also answered the call. The

distribution of the respondents according to their country was as follows: Croatia: 2, Czech Republic: 2, Finland: 2, France: 2, Hungary: 13, Netherlands: 2, Norway: 10, Palestine: 1, Poland: 1, Romania: 2, Serbia: 17, Slovenia: 1, Sweden: 2, United Kingdom: 4.

Summary of supportive and obstructive factors in the work and expansion of educational theatre and drama

Existing supportive factors – in general:

1. inner motivation, personal skills, conviction;
2. enthusiastic work, individual initiative;
3. supportive, experienced and dedicated teachers and senior management in schools,;
4. theatre and drama pedagogues, teachers and senior lecturers in higher education;
5. Master of Arts courses at recognised universities, regular courses in teachers' training, departments specialised in educational theatre and drama, quality teaching materials;
6. work of NGOs, civil associations, theatre companies, national theatre and drama associations;
7. supportive theatres, arts centres, arts councils;
8. state financial subsidies, private sponsorship, national/international project money;
9. annual educational theatre and drama festivals, expert workshops, special publications, presence in media (articles, interviews, films).

Existing obstructive factors – in general:

1. low motivation of decision-makers,
2. low motivation of teachers, lack of parental engagement with educational theatre and drama issues;
3. municipalities not taking drama seriously, not acknowledging its impact on children;
4. dominance of traditional teaching methods in schools, little re-thinking of pedagogy and methodology;
5. low prestige of theatre and drama as a mainstream school-subject;
6. lack of university courses focusing on educational theatre and drama, low quality of existing teachers' training courses;
7. poor financial support and subsidy of educational theatre and drama;
8. lack of systematic research, external evaluation and feedback.

𝒸 Recommendations

C.1. General recommendations for national and local authorities

Objective: to develop a conscious strategy on the application of educational theatre and drama. To support the expansion and improvement of educational theatre and drama by legal and financial means.

Descriptive statistics (chapter B.0.) showed that 84 % of the measured programmes were organised for students of public schools, whereas educational theatre and drama is part of the curriculum in only 19 % of all cases. This means that 65 % of the measured 111 educational theatre and drama programmes have been taking place in public schools, but as an extra-curricular activity, a result of the enthusiasm of educational theatre and drama experts, teachers and external grants in most cases.

Our recommendations for national / local authorities cover three areas: the school system, tertiary education and funding & legislation.

The school system

Objective: All children should have regular access to educational theatre and drama in their schooling, mandated throughout the national curriculum, and taught by well-trained theatre and drama specialists.

Tools:
- Primary school (age 4/6 - 11/14): educational theatre and drama should be realised in the national curriculum
  - as a learning medium across the curriculum
  - as an art form in its own right.
- Lower secondary school (age 11/14 - 16): educational theatre and drama should be realised in the national curriculum
  - as a subject in its own right (minimum of 2 hours per week)
  - as a learning medium across the curriculum.
- Upper secondary school (age 16-18/19): educational theatre and drama should be realised in the national curriculum
  - as a subject in its own right (minimum of 2 hours per week)
  - as a learning medium across the curriculum
  - as a university entrance qualification course.
- Supplementary to the subject area's mandatory place in national curricula, all children should have the opportunity to experience encounters with Theatre in Education programmes and visiting theatre artists, financially supported by local national authorities.
- Teachers already working in schools should have access to in-service training in educational theatre and drama. Teachers should become familiar with educational theatre and drama, in order to embed it into everyday school life, to be used and reflected on across the curriculum not just in specialised theatre and drama lessons.
- Kindergarten/nursery teachers/leaders should have a basic, mandatory training in educational theatre and drama.

It is interesting to note that in Canada drama is incorporated alongside the other arts in their schools, and in Finland (currently revising their national curriculum) it is recommended by the curriculum committee to implement a status for drama on a par with music and the visual arts. Also, in Australia, which is currently designing a new national curriculum, all the arts have the same status in the curriculum.

Tertiary education

Objective: All teachers working in European and Palestinian schools should have a basic knowledge of what educational theatre and drama is and how the subject area can contribute to the enhancement of teaching and learning. It is very important to emphasise that educational theatre and drama cannot be taught without proper training.

Tools:

- Student teachers should have an obligatory introductory course in educational theatre and drama as a tool for teaching and learning in their teacher training. The diverse applications of educational theatre and drama should be taught to all teachers.
- Competence in using educational theatre and drama as a method in teacher training should be integrated in the teaching of other subjects; for example in pedagogy, language studies, social science and history.
- Training of sufficient theatre and drama teachers to enable children and young people to have regular access to educational theatre and drama taught by specialists throughout their school education. Educational theatre and drama should be offered as in-depth studies in tertiary institutions, bachelor degree level, master degree level, doctoral degree level.
- Students and artists with a degree in theatre studies/performing arts studies should have a course component in educational theatre and drama in order to obtain an educational theatre and drama teacher's qualification
- Both qualitative and quantitative research investigating the effectiveness of educational theatre and drama should be conducted in order to help theatre and drama teachers and other practitioners to develop better and better programmes.

Funding, legislation, communication and partnerships

Objective: Sound financial and legal foundations for educational theatre and drama should be established. Strong and positive communications and partnerships are needed.

Tools:

- The legal basis for the above-mentioned ideal circumstances for the school system and tertiary education should be established.
- Sustainable cross-sector bridges should be built between the sectors of education and arts & culture, and not only on paper. Many countries have the two areas in the

same ministry, yet very little attention is paid to genres that link the two, such as educational theatre and drama.

- Raising the profile of, and financially supporting, educational theatre and drama within both the education and arts communities/sectors. Arts & culture activities should be a part of all children's education; therefore it should be based within schools and kindergartens/nurseries, not only outside them. Recognition of the value and effectiveness of educational theatre and drama for children and young people's personal and social skills and well-being, active citizenship, and the social and emotional aspects of learning.
- Encouraging the engagement of experts with scholarships and internships.
- Both qualitative and quantitative research investigating the effectiveness of educational theatre and drama should be supported in order to help theatre and drama teachers and other practitioners to develop better and better programmes.
- Establish strategic partnerships with the key networks, organisations, NGOs and professionals of the field.
- Give direct support from central budgets to the key organisations and networks, and give direct support to high-impact initiatives, such as annual festivals, workshops, conferences, research projects.
- Introduce "theatre and drama teacher" as a profession in its own right.

C.2. General recommendations for partner organisations

Objective: to establish a strong network of organisations dedicated to educational theatre and drama, regardless of whether they are private or public.

Tools:
- **School directors** should
    - employ teachers who are trained in educational theatre and drama and/or encourage staff members to learn the methodology through in-service training,
    - instead of applying theatre and drama separately as an "extra" subject, encourage teamwork between theatre and drama teachers and the teachers of other subjects in order to achieve maximum synergy,
    - establish lively contacts with Theatre in Education companies and/or theatres where theatre and drama pedagogues are working, and such NGOs that employ other areas of educational theatre and drama at a high level,
    - consider educational theatre and drama as a means of international co-operation between schools, e.g. in youth exchanges,
    - encourage the acknowledgement of those teachers who apply educational theatre and drama in their practice,

- provide and develop the necessary infrastructure within school buildings. Usually all that is needed for an educational theatre and drama session is a large empty room with no fixed chairs or tables. Groups preparing theatre performances will need stage, auditorium and proper technical equipment.
- **Arts schools** offering extra-curricular activities should include educational theatre and drama in their list of art courses.
- **Kindergarten/nursery teachers**/leaders should regularly involve children in drama playing.
- **Directors of schools for children with special needs** should seriously consider working with educational theatre and drama professionals.
- **Theatre institutions** should have an education section and a theatre /drama pedagogue, to
    - develop collaborations with schools and kindergartens/nurseries
    - prepare teaching materials for school and kindergarten/nursery visits (children visiting the theatre or theatre artists visiting schools/kindergartens/nurseries)
    - co-operate with NGOs and Drama / Theatre in Education companies.
- **Foundations and private funds** should consider supporting educational theatre and drama organisations and activities.
- **Profit-oriented companies** should consider working together with schools, tertiary educational theatre and drama institutions, theatres or NGOs on Corporate Social Responsibility projects with an affiliation to educational theatre and drama. Besides their high social value, such projects are visible and easy to communicate.
- **Media** should pay more attention to the issues of educational theatre and drama.

DICE ("Drama Improves Lisbon Key Competences in Education") was an international EU-supported cross-cultural research study investigating the effects of educational theatre and drama on five of the eight Key Competences. The research was conducted by twelve partners (leader: Hungary, partners: Czech Republic, Netherlands, Norway, Palestine, Poland, Portugal, Romania, Serbia, Slovenia, Sweden and United Kingdom).

This book has three sections:

Relevance (Section A) is an introduction to the broader concepts: it briefly describes what the DICE project is and what we mean by educational theatre and drama, followed by an assessment of the project in relation to other research studies, its significance in educational theatre and drama.

Results (Section B) thematically covers the key results of the research we conducted on the effect of educational theatre and drama on competences.

Recommendations (Section C) covers the educational theatre and drama practitioners' recommendations for key policy makers at all levels.