

Erasmus+ Programme
KA2 – Cooperation for Innovation and Exchange of Good Practices
KA201 - Strategic Partnership for school education

Project Number: 2018-1-IT02-KA201-048139
CUP: F29B18000170006

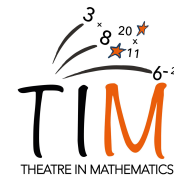
Second TIM Multiplier Event **National Conference in Portugal**

Proceedings

Deliverable DE2.1

Covilhã, Portugal, October 21st, 2021
ESCOLA SECUDÁRIA CAMPOS MELO

Hosting Institution: ASTA



1 INDEX OF CONTENT

1	INDEX OF CONTENT	1
2	PREFACE	2
3	ACKNOWLEDGEMENT	3
4	EVENT INTRODUCTION	4
5	SLIDES	6



2 PREFACE

The following presentation contains the contributions presented at the Second TIM Multiplier Event National Conference held on the 21 of October 2021 in Escola Secundária Campos Melo, Covilhã, Portugal and replied in Agrupamento de Escolas Pêro da Covilhã, Covilhã, Portugal in the 25 of October 2021.

The Event has been developed in the context of the activities of the TIM project "Theatre in Mathematics", funded with the support of the Erasmus+ programme of the European Commission, Key Action 2: Cooperation for innovation and exchange of good practices - Strategic Partnership for School Education.

This publication reflects the views only of the authors, and the Commission cannot be held responsible for any use which may be made of the information contained therein.

These proceedings are available on the TIM Platform.



3 ACKNOWLEDGEMENT

This report, deliverable E2.1: E2 Portugal Multiplier Events - Proceedings were prepared by ASTA to report on the Multiplier Event E2 – First National Event organized in Portugal, Covilhã, in the 21 of October 2021 at Escola Secundária Campos Melo – 21.30h, and a second one, replied on the 25 of October, 2021, at 15.00h in Agrupamento de Escolas Pêro da Covilhã.

The event consisted in a first part with the presentation of the project and a second one with the presentation of the output “theatrical conference” about the fears of mathematic, which consisted in a theatre play. After that, there was time to debate with the audience.

Since there was no possibility to have the project partners in presence or by video call, the presentation of each partner of the consortium was made by the project manager of ASTA, the Portuguese partner.



4 EVENT INTRODUCTION

This deliverable contains the presentations made during the E2 – First TIM National Event organized by ASTA in Covilhã, on October 21st and a replayed one on October 25th.

The date of the first event was decided by the team of ASTA, according with the direction of schools of Escola Secundária Campos Melo (the place where the first event took place – auditorium) and, the education's counsellor from the city hall. It was an event open to the all community and done at night. The second (replayed event in the 25) it was decided by the team of ASTA and the direction of schools of Agrupamento de Escolas Pêro da Covilhã and the education's counsellor from the city hall. This second event was made in the afternoon. The reason of making 2 events, it was because we (ASTA) and the education's counsellor from the city hall, agreed in the importance of separate the publics, for the limits of audience according with the Covid rules and for reasons of security (separate the teachers from normal audience).

The reason why the education's counsellor from the city hall participated in decisions was because when we present the TIM project to the responsible staff of the education in our municipality, the educational department of the city hall decided to insert the TIM project – directly - in the plan for school failure, developed by the education department among the schools of our county.

Regarding the events, they took place according with the planed and it started with the reception/welcome from the directors of the hosted schools, followed by an intervention from the city hall education department. It was then followed by the presentation of TIM project, by the

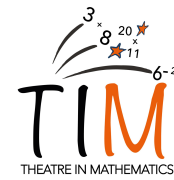


project manager of ASTA and included an introduction to the project, the aim and objectives, the consortium, the TIM methodology and the outputs /final results. After, it was presented one of the outputs – The Theatrical Conference “Os medos da matemática”, which consists in a theatre play about the fears of Mathematica. This play, as said before, it is inserted in the municipality plan to combat the failure in school, so, later it was presented and disseminated in schools of all county of Covilhã. After the play, it was time in the event to debate. In that aspect, an open discussion with the participating stakeholders and many teachers working in primary and secondary education was promoted.

From the part of ASTA, for the event, even whit all the constrictions whit the Covid situation, all contacts were made between representatives of local authorities and public authorities in education, decision makers, education managers, university professors, students of maths, primary and secondary mathematics teachers, press, and others. For the first event we had 27 participants and for the second 18 participants, which makes a total of 45. It’s our will to keep doing dissemination events for the next years, and extend them through all Portugal, and to spread the TIM methodology.

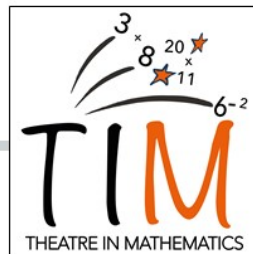
All participants received printed information about the project and its objectives.

The following sections contain the slides used by the presenters during the event.



5 SLIDES

Presentation made by Sérgio Novo – ASTA

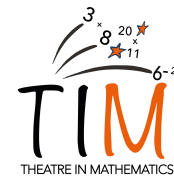


TIM – Theatre in Mathematics
Project Number: 2018-1-IT02-KA201-048139

PORTUGAL – EVENTO DISSEMINADOR
ASTA

Covilhã – 21 de outubro de 2021





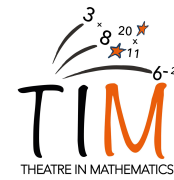
TIM – “THEATRE IN MATHEMATICS”



Co-funded by the
Erasmus+ Programme
of the European Union



- **As competências na matemática são abordadas como uma das questões mais importantes para a autorrealização, tanto a nível social como pessoal, e as competências numéricas são consideradas como uma das prioridades da cooperação educativa a nível da UE.**



TIM – “THEATRE IN MATHEMATICS”

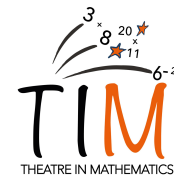
_OBJETIVO



Co-funded by the
Erasmus+ Programme
of the European Union



O objetivo do “TIM – Theatre in Mathematics” é fornecer uma nova metodologia para o ensino da matemática, com o uso de workshops teatrais e da representação, por forma a enfrentar os principais obstáculos do ensino e aprendizagem da matemática, na Europa.



TIM – “THEATRE IN MATHEMATICS”

_OBJETIVO



Co-funded by the
Erasmus+ Programme
of the European Union



Ambiciona melhorar o ensino e aprendizagem da matemática, em particular, fornecendo uma nova metodologia – a Metodologia TIM – para o ensino da matemática, através de workshops de teatro e representação.



TIM – “THEATRE IN MATHEMATICS”

_QUEM SOMOS?

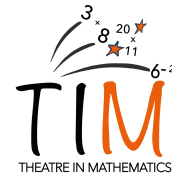


Co-funded by the
Erasmus+ Programme
of the European Union



Trata-se de um projeto fruto de uma parceria internacional na qual COREP é o *project leader*:

- **COREP – Centro de Teatro Social e Comunitário da Universidade de Turim (Itália) _**
<http://www.socialcommunitytheatre.com>



TIM – “THEATRE IN MATHEMATICS”

_QUEM SOMOS?



Co-funded by the Erasmus+ Programme of the European Union



www.socialcommunitytheatre.com/en/general-infos/sct-centre/

Homepage Contacts Newsletter Privacy GPLus English



SOCIAL COMMUNITY THEATRE CENTRE

Italian Cultural Heritage for Human Development



- Home
 - SCT Centre**
 - Culture & Communities
 - Education Training
 - Health Wellbeing
 - Emergency Contexts
- Videos Photos Publications Partners News

SCT > General Infos > SCT Centre

SCT CENTRE



The Social and Community Theatre Centre of the University of Turin (SCT Centre | UNITO) carries out the following activities: interdisciplinary and cross-sectoral scientific research, projects of cultural innovation and social impact, training and capacity building and assessment/supervision through the SCT methodology. The SCT Centre comes from the Italian cultural and artistic heritage, which is founded on creativity, research and relationships; by means of its methodology, the Centre guides it towards the development of inclusive societies and plural communities.

The innovative and multidisciplinary methodology of SCT was developed at the University of Turin at the beginning of the year 2000 by Alessandro Pontremoli and Alessandra Rossi Ghiglione. It is based on the efficacy of theatre and performing arts in the development of the human being and of the relationships created in any condition of personal, professional and community life. It is part of a process of innovation from the point of view of society, citizenry and health promotion.



TIM – “THEATRE IN MATHEMATICS”

_QUEM SOMOS?

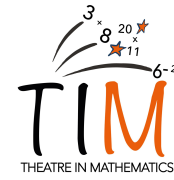


Co-funded by the
Erasmus+ Programme
of the European Union



E entre:

- **Universidade Ocidental da Noruega de Ciências Aplicadas – HVL (Noruega) _**
<https://www.hvl.no>



TIM – “THEATRE IN MATHEMATICS”

_QUEM SOMOS?



Co-funded by the Erasmus+ Programme of the European Union



https://www.hvl.no/en/

Western Norway University of Applied Sciences

Studies Research Collaboration

Home

We offer courses for exchange students, full degree master programmes and PhD opportunities given in English.

International Students >

Welcome to the Global Lounge

Global Lounge is a social meeting place on all our campuses where you can meet both international and Norwegian students and staff. We hope to see you there!

Global Lounge at HVL >



TIM – “THEATRE IN MATHEMATICS”

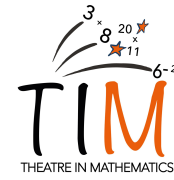
_QUEM SOMOS?



Co-funded by the
Erasmus+ Programme
of the European Union



- Universidade Técnica de Creta (Grécia) _ <http://www.music.tuc.gr>



TIM – “THEATRE IN MATHEMATICS”

_QUEM SOMOS?



Co-funded by the Erasmus+ Programme of the European Union



www.music.tuc.gr

38

Lab. Of Distributed Multimedia Information Systems And Applications | TUC/MUSIC
School of Electronic & Computer Engineering
Technical University of Crete

You are here: [Home](#) GR

Welcome to TUC/MUSIC

Dear Guest,
Welcome to the Laboratory of Distributed Multimedia Information Systems and Applications (TUC/MUSIC). The TUC/MUSIC Laboratory was established in 1990 in the School of Electronic and Computer Engineering of the Technical University of Crete which is located in Chania, Crete, Greece. The TUC/MUSIC Laboratory is a center of research, development and teaching in the areas of distributed information systems, application engineering, computer graphics, and simulation engineering. We hope that you find the information in this site useful, and remain at your disposal for any additional information that you may want. More information can be found by following the "About TUC/MUSIC" menu option. You can also find a short presentation about TUC/MUSIC here.

Athanasios Deligiannakis
Assoc. Professor, Director of TUC/MUSIC

Platforms & Tools

Selected software platforms and tools developed and supported by TUC/MUSIC

FRBR Digital Library Infrastructure
TUC/MUSIC has developed an FRBR-based Open Archival Information System (compatible with the OAIIS reference model) that implements the TUC's Institutional Repository. Key features of this system include: the FRBR based modeling archived content, the extensible vocabulary and authority-file integration for production of Linked-Data ready metadata, the OAI/OpenSearch, and SWORD Services for programmatic content access and submission, the interoperability with national and international



TIM – “THEATRE IN MATHEMATICS”

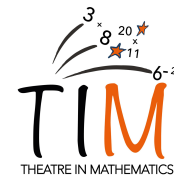
_QUEM SOMOS?



Co-funded by the
Erasmus+ Programme
of the European Union



- ASTA – companhia de Teatro (Portugal) _ <http://aasta.info>



TIM – “THEATRE IN MATHEMATICS”

_QUEM SOMOS?



Co-funded by the Erasmus+ Programme of the European Union

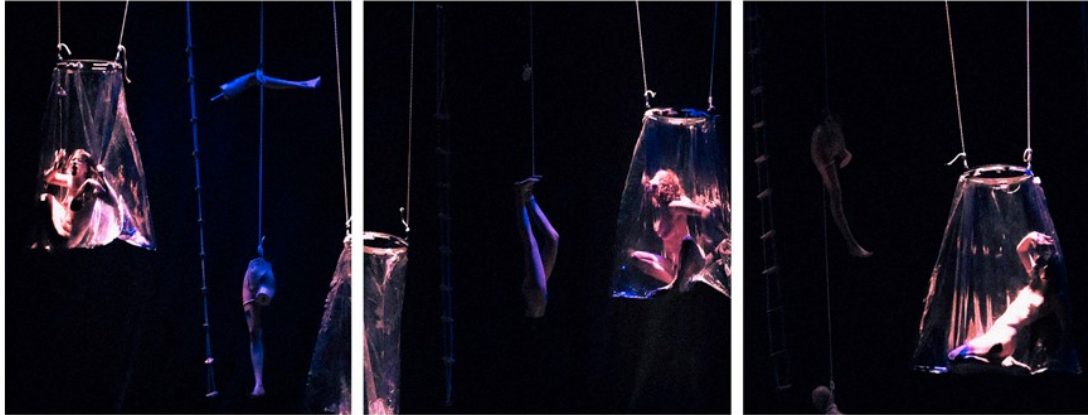


https://www.astainfo.pt/



A ASTA CRIAÇÕES FESTIVAIS SERVIÇO EDUCATIVO PROJETOS DE INVESTIGAÇÃO

f i VIMEO



SOBRE FINANCIAMENTO PRÉMIOS CONTACTOS

A ASTA é uma estrutura profissional de criação e programação fundada em 2000. A sua identidade está assente numa cultura transdisciplinar, tendo por base o teatro. Desde a sua origem procuramos a originalidade e a diferença, numa constante procura de novos métodos e linguagens, seja reinventando clássicos ou criando a partir do espaço vazio. O seu trabalho é bastante diversificado, centrando-se em cinco eixos principais: Criações, Circulação, Programação/Festivais, Serviço Educativo e Projetos de Investigação.



TIM – “THEATRE IN MATHEMATICS”

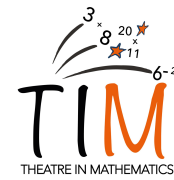
_QUEM SOMOS?



Co-funded by the
Erasmus+ Programme
of the European Union



- DORS – Centro de Documentação de Promoção de Saúde da Região de Piemonte (Itália) _ <https://www.dors.it>



TIM – “THEATRE IN MATHEMATICS”

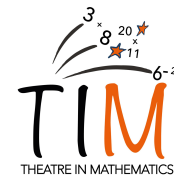
_QUEM SOMOS?



Co-funded by the Erasmus+ Programme of the European Union



The screenshot shows the homepage of the DORS website (www.dors.it). The header includes the DORS logo (Centro Regionale di Documentazione per la Promozione della Salute) and logos for Regione Piemonte and A.S.L. TO3. A navigation menu contains links for CHI SIAMO, TEMI, RISORSE, PUBBLICAZIONI, ATTIVITA' FORMATIVE, PRO.SA, and COVID19. The main content area features a news article titled "Coronavirus SARS-CoV-2: dove trovare informazioni attendibili" with a sub-headline "Aggiornamento al 29 novembre 2021". The article text discusses the importance of reliable information and provides a list of resources. To the right, there is a "Social" section with icons for Facebook, YouTube, Twitter, and LinkedIn, and a "PROGETTO TIM" section with a video interview link. At the bottom, there are two more news snippets: "Comunicazione e vaccino anti Covid-19" and "Essere preparati" in promotion of health for facing the crisis.



TIM – “THEATRE IN MATHEMATICS”

_UMA NOVA METODOLOGIA

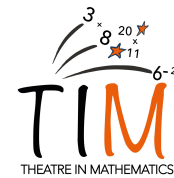


Co-funded by the
Erasmus+ Programme
of the European Union



O projeto desenvolverá a Metodologia TIM, através da combinação e aprofundamento de duas abordagens existentes:

- **“Mathemart”** _ Brincando com a matemática no workshop de teatro
- **“Process Drama”** _ mudança de papéis, perspectivas e aspetos do personagem no ensino da matemática



TIM – “THEATRE IN MATHEMATICS”

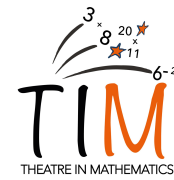
_UMA NOVA METODOLOGIA



Co-funded by the
Erasmus+ Programme
of the European Union



- **Mathemart** é uma nova abordagem que consiste em ensinar matemática através da metodologia do Teatro Social e Comunitário (SCT).
- **Mathemart** usa o SCT no envolvimento dos alunos nos jogos da matemática, através de jogos e atividades teatrais: uma abordagem geral que inclui corpo e mente, criatividade interior inata e empenho. Este cenário teatral transmite uma atmosfera confiante, criativa e divertida, permitindo que os alunos explorem livremente sem qualquer tipo de juízos de valor, o que estão a fazer, aprendendo através de tentativa e erro.



TIM – “THEATRE IN MATHEMATICS”

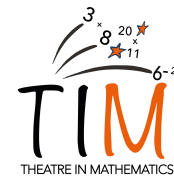
_UMA NOVA METODOLOGIA



Co-funded by the
Erasmus+ Programme
of the European Union



- **“Process Drama”** visa mudar o padrão de comunicação dominado pelo professor, introduzindo e explorando papéis e aspetos de personagens (o cético, o curioso, a autoridade, o mediador) com a finalidade de criar outros processos de aprendizagem ativa no aluno, enfatizando a capacidade de mudar de perspetivas e personagens, num processo de aprendizagem através de argumentos, mais do que por respostas.



TIM – “THEATRE IN MATHEMATICS”

_UMA NOVA METODOLOGIA



Co-funded by the
Erasmus+ Programme
of the European Union



A Metodologia TIM foi desenvolvida tendo em conta os 4 sistemas educativos dos países parceiros, por forma a ser uma ferramenta flexível e adaptável a cada contexto nacional e regional.

O manual irá conter descrito o seu potencial de adaptação a qualquer contexto ou nível de alfabetização, a alunos, dos 8 aos 14 anos de idade.

O manual será traduzido em 5 línguas: Português, Italiano, Inglês, Norueguês e Grego.



TIM – “THEATRE IN MATHEMATICS”

_RESULTADOS DO PROJETO



Co-funded by the
Erasmus+ Programme
of the European Union



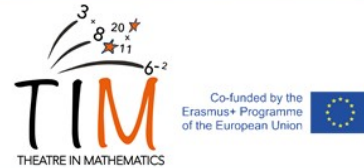
OUTPUTS:

- **Manual Metodológico TIM**
- **Plataforma de e-learning**
- **Conferências teatrais**
- **Artigos científicos**
- **Eventos disseminadores**



TIM – “THEATRE IN MATHEMATICS”

_RESULTADOS DO PROJETO



Manual Metodológico TIM

Tem como origem a análise, avaliação e combinação de duas metodologias complementares: *Mathemart* e *Process Drama* e a sua flexibilidade e a possibilidade de adaptação a cada contexto nacional e regional de cada País.

Irá conter os resultados metodológicos obtidos na realização do projeto.

Será dividido em 4 seções:

- Metodologia TIM; Formação TIM para professores; Atividades e exercícios; Kits de avaliação e competências para professores;

Será o guia de referência para professores, formadores e docentes envolvidos no ensino e estudo da matemática, e que aprendem/usam a metodologia TIM.

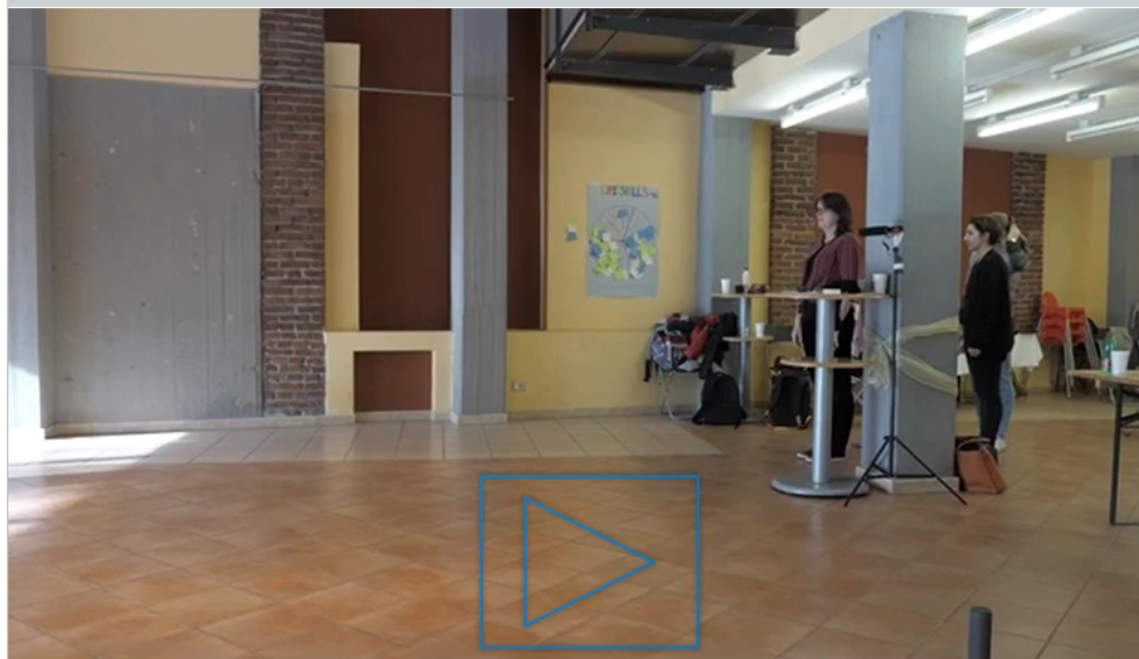


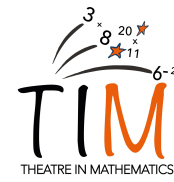
TIM – “THEATRE IN MATHEMATICS”

_RESULTADOS DO PROJETO



Co-funded by the Erasmus+ Programme of the European Union



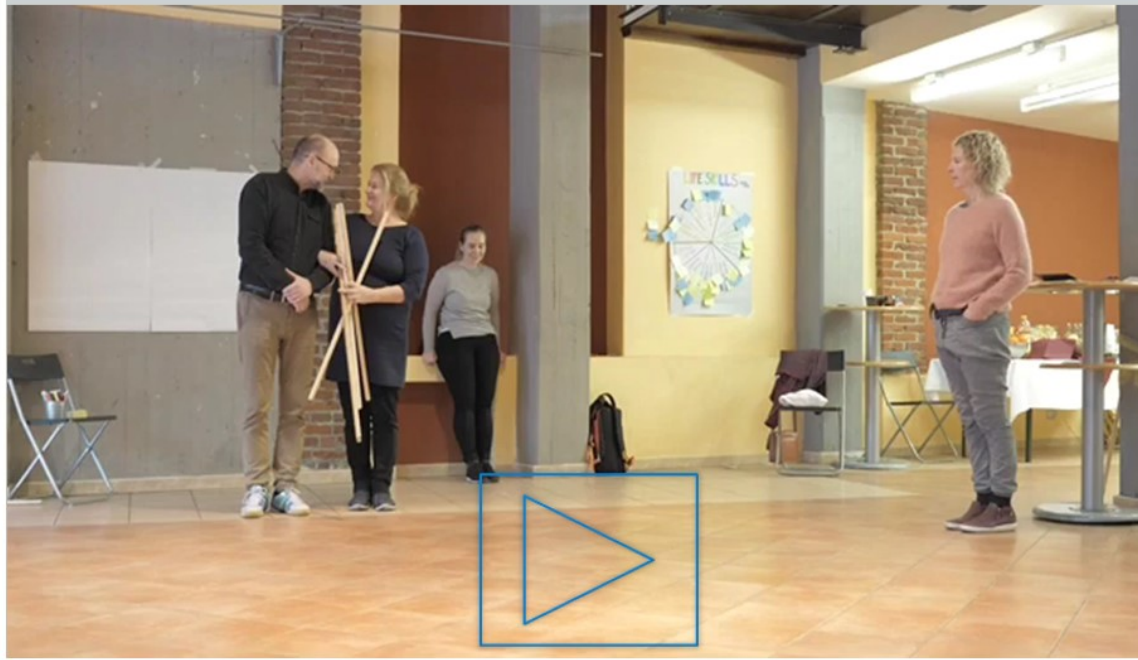


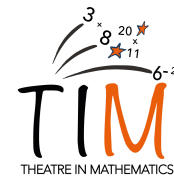
TIM – “THEATRE IN MATHEMATICS”

_RESULTADOS DO PROJETO



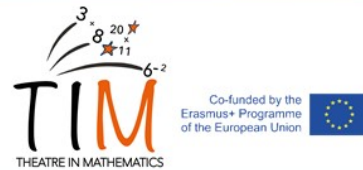
Co-funded by the Erasmus+ Programme of the European Union





TIM – “THEATRE IN MATHEMATICS”

_RESULTADOS DO PROJETO



Plataforma de e-learning

Criação de uma plataforma e-learning e repositório que hospedará recursos educacionais a serem usados por professores e formadores, ao colocarem a metodologia TIM em prática.

Recursos Educacionais Abertos, para que possam ser usados livremente em vários contextos.

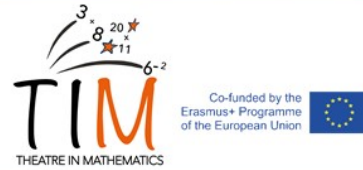
A plataforma e-Learning visa apoiar a criação de Comunidades de Práticas (CoPs) à volta da metodologia TIM, convertendo-se num ponto de referência na partilha e encontro de recursos educacionais, melhores práticas, ideias, etc...

<http://coursevo.com>



TIM – “THEATRE IN MATHEMATICS”

_ RESULTADOS DO PROJETO



Conferências teatrais

Conferência teatral, numa componente de espetáculo teatral - monólogo, sobre o “medo da matemática”, tendo como público-alvo estudantes e professores do 1º, 2º e 3º Ciclo.

Espetáculo criado com um método inovador, envolvendo pontos de vista plurais (dos 4 países envolvidos) e com a contribuição dos especialistas e participantes de todo o projeto.

Abordagem simples e eficaz sobre o papel do medo – e as emoções conectadas – na aprendizagem da matemática. Explora com o público, o obstáculo concreto que o medo introduz no processo de raciocínio matemático e nos seus procedimentos.



TIM – “THEATRE IN MATHEMATICS”

_RESULTADOS DO PROJETO

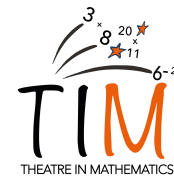


Co-funded by the
Erasmus+ Programme
of the European Union



Artigos científicos

Quatro artigos científicos que pretendem analisar e apresentar as questões centrais observadas no desenvolvimento da Metodologia TIM, investigando tópicos como a aprendizagem e ensino da matemática, o papel do teatro e da representação na aquisição de competências, o papel da emoção na aprendizagem, a pedagogia lúdica e muito mais...



TIM – “THEATRE IN MATHEMATICS”

_RESULTADOS DO PROJETO



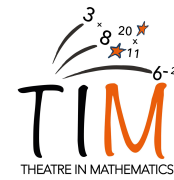
Co-funded by the
Erasmus+ Programme
of the European Union



Eventos disseminadores

Os eventos conduzirão à implementação dos resultados concretizados (Outputs) e permitirão a disseminação do projeto.

Ao longo dos Eventos, a Metodologia TIM será desenvolvida e o conhecimento sobre o TIM será divulgado.



TIM – “THEATRE IN MATHEMATICS”

_RESULTADOS DO PROJETO



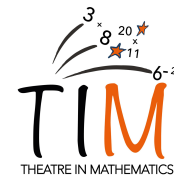
Co-funded by the
Erasmus+ Programme
of the European Union



Eventos disseminadores

Os eventos conduzirão à implementação dos resultados concretizados (Outputs) e permitirão a disseminação do projeto.

Ao longo dos Eventos, a Metodologia TIM será desenvolvida e o conhecimento sobre o TIM será divulgado.





TIM – “THEATRE IN MATHEMATICS”

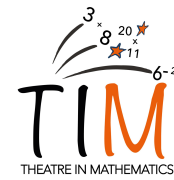


Co-funded by the
Erasmus+ Programme
of the European Union



<https://www.theatreinmath.eu>

<https://www.theatreinmath.eu/pt-pt>



TIM – “THEATRE IN MATHEMATICS”



Co-funded by the
Erasmus+ Programme
of the European Union



Apresentação da Conferência Teatral

“Os medos da matemática”