

VIII SEMINAR

"INVALSI DATA: A TOOL FOR TEACHING AND SCIENTIFIC RESEARCH" PROGRAMME

23rd November

9.30 - 10.30 a.m. **Registration and Welcome Coffee**

10.30 - 11.00 a.m. **Room 1**

Institutional Greetings

Patrizia Falzetti (Head of the Area of the Evaluation Research, INVALSI)

Roberto Ricci (President of INVALSI)

Renata Maria Viganò (Full Professor of Experimental Pedagogy at the

Catholic University, Vice-President of INVALSI)

11.00 a.m. - 12.00 p.m. **Room 1**

Plenary Session Organizer: INVALSI

Chair: Roberto Ricci (President of INVALSI)

Speaker: Aline Pennisi (Next generation EU, Ministry of Economy and Finance), *INVALSI: a mine of data for the Italian national recovery and*

resilience plan

12.00 - 1.00 p.m. **Room 1**

Plenary Session Organizer: INVALSI

Chair: Roberto Ricci (President of INVALSI)

Speaker: Francesco Profumo (President of the Compagnia di San Paolo

Foundation), "How to make data talk and why"

1.00 - 2.00 p.m. **Lunch**

2.00 - 4.00 p.m. **Parallel Sessions**

Room 1 – Research Session 1 Room 2 – Research Session 2 Room 3 – Research Session 3 Room 4 – Research Session 4

4.00 - 4.30 p.m. **Coffee Break**

4.30 - 6.30 p.m. **Parallel Sessions**

Room 1 – Research Session 5 Room 2 – Research Session 6 Room 3 – Research Session 7

24th November

9.30 - 11.30 a.m. **Parallel Sessions**

Room 1 – Research Session 8 Room 2 – Research Session 9 Room 3 – Research Session 10

11.30 a.m. - 12.00 p.m. **Coffee Break**

12.00 - 1.00 p.m. **Room 1**

Plenary Session Organizer: INVALSI

Chair: Patrizia Falzetti (Head of the Area of the Evaluation Research,

INVALSI)

Speaker: Enrico Rettore (Full Professor at the University of Padova), "The

challenge of measuring the causal effect of an intervention"

1.00 - 2.00 p.m. **Lunch**

2.00 - 4.00 p.m. **Parallel Sessions**

Room 1 – Research Session 11 Room 2 – Research Session 12 Room 4 – Research Session 13

4.00 - 4.30 p.m. **Coffee Break**

4.30 - 6.30 p.m. **Room 1**

Plenary Session

Panel Discussion - Research

Unlocking the Power of Large-Scale Assessments: Shaping Policies Beyond

Fundamental Skills

Chair: Daniele Vidoni (Policy Officer - European Commission, DG

Competition) **Speakers:**

Ellen Claes (KU Leuven)

Massimo Loi (Head of the of the National Assessment unit - primary

education, Head of the International Evaluations unit)

Roberto Ricci (President of INVALSI)

Andres Sandoval Hernandez (University of Bath)

Sylke Viola Schnepf (European Commission's Joint Research Centre)

8.00 p.m. **Social Dinner**

25th November

9.30 - 11.30 a.m. **Parallel Sessions**

Room 1 – Teaching Session 1 Room 2 – Teaching Session 2 Room 3 – Research Session 14

11.30 a.m. - 12.00 p.m. **Coffee Break**

12.00 - 1.00 p.m. **Room 1**

Plenary Session Organizer: INVALSI

Chair: Patrizia Falzetti (Head of the Area of the Evaluation Research,

INVALSI)

Speaker: Maria Teresa Siniscalco (President of ADI – Association of Italian Teachers and School Principals), *"Text comprehension as a*

competence to be built: data from research"

1.00 - 2.00 p.m. **Lunch**

2.00 – 3.30 p.m. **Parallel Sessions**

Room 1 – Authors Meet Critics - Presentation of the book by Orazio Giancola e Luca Salmieri: La povertà educativa in Italia, Carocci (2023)

Room 4 - Research Session 15

3.30 - 4.00 p.m. **Coffee Break**

4.00 - 6.30 p.m. **Parallel Sessions**

Room 1 – Teaching Session 3 Room 2 – Teaching Session 4 Room 3 – Research Session 16

26th November

9.30 - 11.30 a.m. Room 1 – Teaching Session 5

11.30 a.m. - 12.00 p.m. **Coffee Break**

12.00 - 1.00 p.m. **Room 1**

Plenary Session

Panel Discussion - Teaching

The most beautiful job in the world". What do we know about teacher

motivation?

Chair: Renata Maria Viganò (Full Professor of Experimental Pedagogy at

the Catholic University, Vice-President of INVALSI)

Speakers:

Ketty Savioli (Primary School Teacher, INVALSI Expert Collaborator) Sabrina Sironi (Secondary School Teacher, Tutor Trainee Teacher)

Gabriella Agrusti (Full Professor of Experimental Pedagogy at LUMSA

University)

1.00 - 2.00 p.m. **Lunch**

2.00 - 3.30 p.m. **Plenary Session**

Room 1 – Authors Meet Critics - Presentation of the book by Daniele Barca:

La scuola dell'età dello tsunami, Giunti (Firenze 2023)

3.30 – 4.00 p.m. **Coffee Break**

4.00 - 6.30 p.m. **Parallel Sessions**

Room 1 – Teaching Session 6

Room 2 – Teaching Session 7

Research Sessions will be held in English Teaching Sessions will be held in Italian

PARALLEL SESSIONS PROGRAMME

23rd November: 2.00 - 4.00 p.m.

Room 1- Research Session 1

Theme 1. A difficult education: challenges of the school system to ensure social integration, skills/knowledge

and social mobility

Organizer: INVALSI - ESPANET

Coordinator: Patrizia Falzetti (INVALSI)

Analysing INVALSI data to develop a simplified index of students' socioeconomic and cultural background

Clelia Cascella (INVALSI)

Resilient students: what factors behind the success of disadvantaged students?

Silvia Duranti (IRPET)

Francesco Bogazzi (University of Florence)

Implicit school drop-out: personal and contextual features of a complex phaenomenon

Lorenzo Maraviglia (INVALSI)

Ornella Papa (INVALSI)

Giuseppina Le Rose (INVALSI)

Teacher insecurity and inequalities in student learning. New evidence from INVALSI data, 2017-2022

Giovanni Antonini (Catholic University of Milano)

Gianluca Argentin (University of Milano Bicocca)

Room 2 - Research Session 2

Theme 2. Different data sources and their integration: policy indicators for the education and training system

Organizer: INVALSI - ISTAT

Coordinator: Barbara Baldazzi (ISTAT)

Measuring early school leaving: how to get institutional data and INVALSI data to talk to each other

Massimo Armenise (ISTAT)

Barbara Baldazzi (ISTAT)

Classroom rank in mathematics and career choices

Maddalena Davoli (University of Zurigo)

Maurizio Strazzeri (University of Berna)

Enzo Brox (University of St. Gallen)

The heuristic value of data for school evaluation as a data-driven decision-making process

Michela Freddano (INVALSI)

Miriam Mariani (INVALSI)

Tackling school dropout through the school climate: a proposal for a process indicator from the RAV Experimentation for Vocational Education and Training

Daniela Torti (INVALSI)

Michela Freddano (INVALSI)

Room 3 - Research Session 3

Theme 3. International large-scale assessments (ILSAs) methods and results

Organizer: INVALSI

Coordinator: Magdalena Isac (KU Leuven)

 $The\ relationship\ between\ school\ working\ conditions\ and\ teacher\ job\ satisfaction\ in\ Italy:\ Evidence\ from\ TIMSS\ 2019$

Nurullah Eryilmaz (IEA - International Association for the Evaluation of Educational Achievement)

School Belonging and (Forced) Migration

Daniel Shepard (University of Indiana)

Investigating the impact of inquiry-based teaching on science learning: a further analysis in Italy

Zhijun Chen (University of Bath)

Andres Sandoval Hernandez (University of Bath)

What makes a good reader? Evidence from PIRLS 2021 Paola Giangiacomo (INVALSI) Valeria F. Tortora (INVALSI) Michele Cardone (INVALSI)

Room 4 - Research Session 4

Theme 8. Learning to learn in schools, in adult education and in vocational education and training

Organizer: INVALSI

Coordinator: Cristina Stringher (INVALSI)

Learning to Learn: teachers' conceptions 'in medias res'
Lucia Scipione (University of Modena and Reggio Emilia)
Roberta Cardarello (University of Modena and Reggio Emilia)

Learning to Learn: training future teachers

Lucia Scipione (University of Modena and Reggio Emilia) Annamaria Gentile (University of Modena and Reggio Emilia) Agnese Vezzani (University of Modena and Reggio Emilia)

Pierina Giovanna Bertoglio (University of Modena and Reggio Emilia)

"Activities involving students" for Secondary School Teachers in Italy: noncognitive aspects related to L2L Hugo Armando Brito Rivera (Universidad Autónoma Metropolitana)

"Impossible pupils" in teachers' representations: educational challenges for Learning to Learn in an international qualitative study.

Cristina Stringher (INVALSI)

Salvatore Patera (University of the International Studies of Rome)

23rd November: 4.30 - 6.30 p.m.

Room 1 - Research Session 5

Theme 5. Education and Social Mobility

Organizer: INVALSI

Coordinator: Daniele Vidoni (Policy Officer - European Commission, DG Competition)

Born Different? Starting Differences and Academic Career Outcomes of Students through INVALSI Data

Gian Paolo Barbetta (Catholic University of Milan)

Luca Stella (Freie Universität Berlin)

Lorenzo Vaiani (Itinerari Previdenziali)

The social stratification of teachers' grading: How students' social background affect the way students are evaluated in school

Moris Triventi (University of Trento)

How are inequalities generated in schools? An attempt to construct research tools and data

Giovanni Abbiati (University of Brescia)

Giuseppina Le Rose (INVALSI)

Elisa Manzella (University of Brescia)

Emmanuele Pavolini (University of Macerata)

Room 2 - Research Session 6

Theme 2. Different data sources and their integration: policy indicators for the education and training system

Organizer: INVALSI - ISTAT

Coordinator: Barbara Baldazzi (ISTAT)

The Italian School System layer by layer

Lorenzo Maraviglia (INVALSI)

Emiliano Campodifiori (INVALSI)

Michele Marsili (INVALSI)

Where have they gone? Following a cohort of students through the intricacies of Italian contemporary society

Lorenzo Maraviglia (INVALSI)

Andrea Bendinelli (INVALSI)

Project «VALVAL»

Simonetta Radi (Unione Valdera)

Arianna Cecchini (President of the Educational Conference Unione Valdera and Major)

Cristina Cosci (Unione Valdera) Simone Mancini (Unione Valdera)

Digital skills and learning in Italian and Mathematics: a crossroads of inclusion, education and innovation.

Valeria F. Tortora (INVALSI)

Patrizia Falzetti (INVALSI)

Room 3 - Research Session 7

Theme 3. International large-scale assessments (ILSAs) methods and results

Organizer: INVALSI

Coordinator: Magdalena Isac (KU Leuven)

Exploring factors affecting Italian students' attainment in standardised EFL tests.

Clelia Cascella (INVALSI) Sara Giannone (INVALSI) Simona Incerto (INVALSI) Adriana Timpone (INVALSI)

Are older adolescents more rational in their trust assessment than young adolescents?

Linde Stals (KU Leuven) Ellen Claes (KU Leuven)

Maria Magdalena Isac (KU Leuven)

Comparative Analysis of Environmental Knowledge: A Focus on Italy

Yuan-Ling Liaw (IEA - International Association for the Evaluation of Educational Achievement)
Sabine Meinck (IEA - International Association for the Evaluation of Educational Achievement)

Andres Strello (IEA - International Association for the Evaluation of Educational Achievement)
Rolf Strietholt (IEA - International Association for the Evaluation of Educational Achievement)

Digital Citizen Participation in Chile and Italy: description of gaps and their relationship with other forms of participation Daniel Miranda (Pontificia Universidad Católica de Chile)

Juan Carlos Castillo (Pontificia Universidad Católica de Chile)

24th November: 9.30 - 11.30 a.m.

Room 1- Research Session 8

Theme 7. Fostering the Evaluation Capacity Building for School Improvement

Organizer: INVALSI

Coordinator: Donatella Poliandri (INVALSI)

Supporting teachers' self- evaluation and competence development for the use of artificial intelligence in the classroom:

the Erasmus AI4T project Sara Mori (INDIRE) Jessica Niewint (INDIRE)

Francesca Storai (INDIRE)

School principals' viewpoint on a training program for supporting school self-evaluation

Giuseppe Carmelo Pillera (INVALSI)

Letizia Giampietro (INVALSI)

Donatella Poliandri (INVALSI)

Study of teachers' beliefs and practices about formative assessment in Emergency Remote Teaching. The role of INVALSI data

Marco Giganti (Catholic University)

Emanuele Marcora (European Omnicomprehensive Institute of Arconate and Buscate)

Impact analysis of a professional development on self-evaluation: first results

Donatella Poliandri (INVALSI)

Sara Manganelli (INVALSI)

Letizia Giampietro (INVALSI)

Small schools for self-evaluation

Graziella Arazzi (Higher Education in Humanities and Artistic Sciences - Imperia)

Room 2 - Research Session 9

Theme 4. Gender Stereotypes

Organizer: INVALSI

Coordinator: Ellen Claes (KU Leuven)

Grade gender gap: evidence from RiminiInRete Beatrice Franzolini (University of Milan, Bocconi)

Filippo Albertini (RiminiInRete) Lorella Camporesi (RiminiInRete)

A new scale of Perceived Self-Efficacy in Management and Use of Digital Devices: psychometric structure and gender invariance

Rosalba Ceravolo (INVALSI)

Marta Desimoni (INVALSI)

Michela Milioni (INVALSI)

Gender differences in computer user-profiles and performance on mathematics computer-based tests: an application of latent class analysis

Marta Desimoni (INVALSI)

Donatella Papa (INVALSI)

Cristina Lasorsa (INVALSI)

Get off with a good start: predicting power of INVALSI mathematical test on STEM career at university according to gender

Patrizia Giannantoni (INVALSI)

Patrizia Falzetti (INVALSI)

Exploring the Influence of Maternal and Teacher Role Models on Gendered Differences in Mathematics

Alice Bertoletti (European Commission, Joint Research Centre)

Marta Cannistrà (Polytechnic University of Milan)

Mara Soncin (Polytechnic University of Milan)

Room 3 - Research Session 10

Theme 3. International large-scale assessments (ILSAs) methods and results

Organizer: INVALSI

Coordinator: Ernesto Trevino (Pontificia Universidad Católica de Chile)

When almost all items are endorsed: Extreme responses or substantive classes?

David Torres Irribarra (Pontificia Universidad Católica de Chile)

Diego Carrasco (Pontificia Universidad Católica de Chile)

Implications of ILSA Results for Citizenship Curriculum Reforms

Citlalli Sanchez-Alvarez (Autonomous University of Baja California, Mexico)

How motivational constructs interact to predict elementary students' reading performance

Beti Lameva (National Examination Centre, Macedonia)

Zaneta Chonteva (Bureau of Education Development, Ministry of Education and Science, Republic of North Macedonia)

Preparing Teachers for Assessment: Evidence from Three International Large-scale Assessment Programs

Serafina Pastore (University of Bari)

Davide Azzolini (FBK-IRVAPP Research Institute for the Evaluation of Public Policies)

Sonia Marzadro (FBK-IRVAPP Research Institute for the Evaluation of Public Policies)

24th November: 2.00 - 4.00 p.m.

Room 1 - Research Session 11

Theme 5. Education and Social Mobility

Organizer: INVALSI

Coordinator: Lorenzo Maraviglia (INVALSI)

The Impact of Primary School Math Skills on Academic Achievement in Lower Secondary School Chiara Masci (Polytechnic University of Milan)

Mara Soncin (Polytechnic University of Milan)

Tommaso Agasisti (Polytechnic University of Milan)

Melisa Diaz Lema (Polytechnic University of Milan)

Geographical cleavages in educational outcomes: Educational achievement and social inequalities in Inner and Central areas in Italy

Moris Triventi (University of Trento)

Nazareno Panichella (University of Milan)

Stefano Cantalini (University of Milan)

Andrea Pietrolucci (University of Trento)

The Voice of Students, Parents, Teachers and Principals: The Hermeneutics of Data for the Promotion of a Transformative Educational Alliance from the Bottom-Up — Towards the Reconciliation of the Modernity Fracture Starting from the School. The Philosophical and Political Foundations of Teach For Italy's MEL System.

Antonio Piscopo (Teach of Italy)

Students' outcomes in four-year courses: an analysis of data from State exams and INVALSI tests

Paolo Davoli (Regional School Office of Emilia Romagna)

Francesco Orlando (Regional School Office of Emilia Romagna)

Room 2 - Research Session 12

Theme 4. Gender Stereotypes

Organizer: INVALSI

Coordinator: Ellen Claes (KU Leuven)

The impact of anxiety on girls and boys differences at the INVALSI: A multilevel path analyses with meta-analysis study

David Giofrè (University of Genova)

Tommaso Feraco (University of Padova)

Enrico Toffalini (University of Padova)

Sara Caviola (University of Padova)

Gender stereotypes and children's performance in elementary schools

Federica Origo (University of Bergamo)

Piera Bello (University of Bergamo)

Annalisa Cristini (University of Bergamo)

Bridging the gender gap in mathematics: examining STEM enrolment rate by gender in Higher Education, in Italian

Provinces

Federica Ferretti (University of Ferrara)

Giorgio Bolondi (Libera University of Bolzano)

Clelia Cascella (INVALSI)

Ugo Rizzo (University of Ferrara)

Peer interaction and gender stereotypes in primary education: A literature review

Catalina Miranda (Pontificia Universidad Católica de Chile)

Room 4 - Research Session 13

Theme 6. The evaluation of public policies in the school system

Organizer: INVALSI

Coordinator: Andres Sandoval Hernandez (University of Bath)

Effects of Workload Allocation per Course on Students' Academic Outcomes: Evidence from STEM Degrees

Giorgia Casalone (University of Piemonte Orientale)

Carmen Aina (University of Piemonte Orientale)

Koray Aktas (University of Ca Foscari, Venice)

The Effect of School Closures on Students' Academic Performance in Italy

Josep Amer Mestre (European Commission, Joint Research Centre)

Sara Flisi (European Commission, Joint Research Centre)

Teachers and educational inequalities reproduction: how can we reduce tertiary effects? Evidence from an RCT combined with a factorial survey experiment

Elisa Manzella (University of Brescia)

Gianluca Argentin (University of Milano Bicocca)

25th November: 9.30 - 11.30 a.m.

Room 1 - Teaching Session 1

Theme 11. Equity between low achieving students and the excellent ones: both sides of the same coin

Organizer: INVALSI

Coordinator: Paolo Barabanti (INVALSI)

Equity, quality and inclusion in schools in the autonomous province of Trento: examples of good practices

Anna Maria Ajello (Università La Sapienza of Rome)

Chiara Tamanini (IPRASE - Provincial institute for educational research and experimentation, Trento)

Paolo Barabanti (INVALSI)

Fragile and high performing male and female students in coexisting environments: how do they differ in characteristics? A case study based on the goals of the Agenda 2030: providing quality education and achieving gender equality Alessia Cividin (Comprehensive Institute Roiano Gretta di Trieste)

From SES to training orientation: a regional experience of equity and improvement

Ornella Campo (Technical Manager - Regional School Office)

Giorgio Cavadi (Technical Manager, Expert in training systems)

Who are Italian preschool teachers? Provisional answers from data of the Italian national experimentation of the preschool self-evaluation report format

Brunella Fiore (University of Milan Bicocca)

Paolo Barabanti (INVALSI)

Excellence and fragility in mathematics learning: what methodological approach can guarantee an equitable school system

Carmina Laura Giovanna Pinto (Regional School Office of Marche)

How to read the educational fragility ... to intervene

Francesco Mammarella (Comprehensive Institute of Città Sant'Angelo)

Ettore D'Agostino (Comprehensive Institute of Città Sant'Angelo)

Roberta Franchi (Comprehensive Institute of Città Sant'Angelo)

Carla Lavista (Comprehensive Institute of Città Sant'Angelo)

Room 2 - Teaching Session 2

Theme 9. Italian, Maths and English; teaching processes through INVALSI data and tools

Organizer: INVALSI

Coordinator: Roberto Capone (Università degli studi di Bari Aldo Moro)

The language of INVALSI Mathematics tests

Ottavio Giulio Rizzo (University of Milano)

A new idea of CLIL with INVALSI Maths questions

Stefano Babini (Artistic High-School P. Toschi, Parma)

Ivan Graziani (Comprehensive Institute of Santa Sofia, Forlì-Cesena)

Chiara Cataldo (Artistic High-School P. Toschi, Parma)

Storytelling Maths with INVALSI questions

Ivan Graziani (Comprehensive Institute of Santa Sofia, Forlì-Cesena)

Stefano Babini (Artistic High-School P. Toschi, Parma)

INVALSI data from fifth-grade primary school as a tool for evaluating a methodology based on games for teaching mathematics

Valentina Vaccaro (INVALSI)

Maria Francesca Ambrogio (Comprehensive Institute Santena)

Serious Games and INVALSI items: an idiographic study of an innovative mathematics teaching approach

Roberto Capone (University of Bari Aldo Moro)

Eleonora Faggiano (University of Bari Aldo Moro)

The performance of students attending the Liceo Matematico in INVALSI tests

Francesca Coppa (Università La Sapienza, Rome)

Alessandro Gambini (Università La Sapienza, Rome)

Stefania Gubbiotti (Università La Sapienza, Rome)

Davide Passaro (Università La Sapienza, Rome)

Room 3 - Research Session 14

Theme 8. Learning to learn in schools, in adult education and in vocational education and training

Organizer: INVALSI

Coordinator: Cristina Stringher (INVALSI)

Educational planning and planning to intervene in the ability to learn to learn

Franca Da Re (Independent Researcher)

The assessment of personal, social and learning to learn competence. The testing of a formative assessment dispositive *Andrea Giacomantonio (Pegaso Telematic University)*

Arduino Salatin (IUSVE - Salesian University Institute of Venice)

Fabrizio Giovannini (INAPP - National institute for the analysis of public policies)

Marta Santanicchia (INAPP - National institute for the analysis of public policies)

Promoting learning achievements of prospective teachers through gamified cognitive activation

Andrea Tinterri (Telematic University IUL)

Anna Dipace (University of Foggia)

The contribution of learning orientations to school success and well-being. Results of studies conducted with students and teachers

Giulia Vettori (University of Florence)

Lucia Bigozzi (University of Florence)

Giuliana Pinto (University of Florence)

25th November: 2.00 - 3.30 p.m.

Room 1 – AUTHORS MEET CRITICS

Presentation of the book by Orazio Giancola e Luca Salmieri: La povertà educativa in Italia, Carocci (2023)

Organizer: INVALSI

Moderator: Elisa Chiriano (*Teacher*, *Ministry of Education*)

Speakers:

Gianluca Argentin (University of Milano Bicocca)

Emmanuele Pavolini (University of Macerata)

Paolo Sestito (Director General for Planning, Organization and Accounting - Bank of Italy)

Renata Maria Viganò (Full Professor of Experimental Pedagogy at the Catholic University, Vice-President of INVALSI)

Room 4 - Research Session 15

Theme 1. A difficult education: challenges of the school system to ensure social integration, skills/knowledge

and social mobility

Organizer: INVALSI - ESPANET

Coordinator: Emmanuele Pavolini (ESPANET)

The uphill battle: The amplifying effects of negative trends in test scores, COVID-19 school closures and teacher shortages

Letizia Gambi (KU Leuven)

Kristof De Witte (KU Leuven)

Starting the school year on the right foot. Effects of a summer learning program targeting low-performing students in Italy

Davide Azzolini (FBK-IRVAPP Research Institute for the Evaluation of Public Policies)

Martina Bazzoli (FBK-IRVAPP Research Institute for the Evaluation of Public Policies)

Sergiu C. Burlacu (FBK-IRVAPP Research Institute for the Evaluation of Public Policies)

Enrico Rettore (University of Padova)

A systematic overview of the effectiveness of teaching action in feedback literacy as a tool for preventing, tackling and reducing implicit and explicit early school leaving factors in the national school landscape

Rita Marzoli (INVALSI)

Antonella Mastrogiovanni (INVALSI)

Antonella Vendramin (INVALSI)

Hidden drop-out: Secondary education (unseen) failure in pandemic times

Rosario Maria Ballatore (Bank of Italy)

Lorenzo Alderighi (European University Institute)

Marco Tonello (Bank of Italy)

25th November: 4.00 - 6.30 p.m.

Room 1 - Teaching Session 3

Theme 9. Italian, Maths and English: teaching processes through INVALSI data and tools

Organizer: INVALSI

Coordinator: Daniele Vidoni (Policy Officer - European Commission, DG Competition)

Promoting algebraic thinking: restructuring INVALSI items to turn them into an opportunity for formative assessment Simone Quartara (Upper Secondary School IItalo Calvino, Genoa)

Francesca Morselli (University of Genova)

Elisabetta Robotti (University of Genova)

Alessandra Boscolo (University of Genova)

Scientific curriculum design starting from maker education experience

Laura Castellana (Learning Circle "E. De Amicis", Modugno)

Teresa Di Tullio (Learning Circle "E. De Amicis", Modugno)

At school with Mother Nature: INVALSI tests in outdoor

Daniela Ruffolo (Comprehensive Institute Don Milani-Linguiti Giffoni Valle Piana)

Carmela Gabola (Comprehensive Institute Don Milani-Linguiti Giffoni Valle Piana)

Antonietta Cammarota (CEA)

The role of cognitive process in designing and constructing the national assessment of mathematics for primary school *Francesca Ferrara (University of Turin)*

Stefania Pozio (INVALSI)

Ketty Savioli (Comprehensive Institute Chieri III)

An initial exploratory study of the perceived difficulty of students and teachers with respect to a mathematical task

Bianca Nicchiotti (University of Bolzano) Camilla Spagnolo (University of Bolzano)

The space that teaches: Laboratorium

Sebastiana Fisicaro (MI.A.T.)

Room 2 - Teaching Session 4

Theme 9. Italian, Maths and English: teaching processes through INVALSI data and tools

Organizer: INVALSI

Coordinator: Valeria F. Tortora (INVALSI)

Connections and inferences to "unmask" the text: a vertical route

Anna Maria Moiso (Association "La casa degli insegnanti")

Roberta Strocchio (Association "La casa degli insegnanti")

Giuseppina Maria Sfasciamuro (Educational Institution Madre Mazzarello)

Beyond the sentence. The valential model, the complex phrase and Invalsi items

Alessio Trevisan (Educational Institution Madre Mazzarello)

Federica Ferrini (Educational Institution Madre Mazzarello)

The floor to the students: in-depth interviews on reading comprehension tests during the field trial

Antonella Vendramin (INVALSI)

Francesca Resio (INVALSI)

Antonella Mastrogiovanni (INVALSI)

A trip beetween Italian vertical curriculum and INVALSI data

Alessia Ieva (La casa degli insegnanti)

Alessio Trevisan (Educational Institution Madre Mazzarello)

Federica Ferrini (Educational Institution Madre Mazzarello)

Giuseppina Maria Sfasciamuro (Educational Institution Madre Mazzarello)

Implementation, improvement of INVALSI data, comparison with international OECD-PISA research for a European dimension of teaching

Pompea Funiati (Upper Secondary School E. Ferdinando)

Lucia Funiati (Upper Secondary School E. Ferdinando)

Students Preparing for an Invalsi Test: A Vertical Peer Education Experiment

Roberta Strocchio (Association "La casa degli insegnanti")

Alessia Ieva (Association "La casa degli insegnanti")

Anna Maria Moiso (Association "La casa degli insegnanti")

Room 3 - Research Session 16

Theme 1. Session 1 - A difficult education: challenges of the school system to ensure social integration, skills/knowledge and social mobility

Organizer: INVALSI - ESPANET

Coordinator: Emmanuele Pavolini (ESPANET)

The top, the bottom, and the average. The trinity of school ability peer effects in Italy and Norway

Emanuele Fedeli (University of Trento)

Solveig Topstad Borgen (University of Oslo)

Moris Triventi (University of Trento)

Assessing the educational inclusion of students with a migrant background. Italy and Spain

Giovanna Filosa (INAPP - National institute for the analysis of public policies)

Patrizia Rinaldi (Universidad de Granada)

Grading standards across provinces revisited

Emanuele Fedeli (University of Trento)

Moris Triventi (University of Trento)

26th November: 9.30 - 11.30 a.m.

Room 1 - Teaching Session 5

Theme 10. School 2.0 Organizer: INVALSI

Coordinator: Chiara Tamanini (IPRASE)

INVALSI tests and gamification: some experimental incidences

Rossetti Luigi Umberto (Professional Institute for Hospitality and Catering Le Streghe, Benevento)

Teachers' beliefs concerning the role of AI in mathematics education

Camilla Spagnolo (University of Bolzano) Giorgio Bolondi (University of Bolzano)

PLAY-INVALSI. Gamification through INVALSI questions

Silvia Servili (Comprehensive Institute Centro San Benedetto del Tronto)

Chiara Saletti (Comprehensive Institute MASACCIO, Firenze)

Ivan Graziani (Comprehensive Institute SANTA SOFIA, Forlì-Cesena)

INVALSI and PNRR VS learning fragility and implicit dispersion - the necessity of a virtuous school system

Ileana Ogliari (Comprehensive Institute Manfredini)

Andrea Guarnacci (Comprehensive Institute Manfredini)

Mariarosaria Orefice (Comprehensive Institute Manfredini)

Learning goals related to the use of new technologies is measured also through INVALSI data

Alice Severi (Upper Secondary School Follonica)

Alessandra Marrata (Upper Secondary School Follonica)

Digital skills assessed with ICILS 2018

Paola Giangiacomo (INVALSI)

Monica Papini (INVALSI)

Valeria F. Tortora (INVALSI)

26th November: 2.00 - 3.30 p.m.

Room 1 - AUTHORS MEET CRITICS

Presentation of the book by Daniele Barca: La scuola dell'età dello tsunami, Giunti (Firenze 2023)

Organizer: INVALSI

Moderator: Elisa Chiriano (*Teacher*, *Ministry of Education*)

Speakers:

Ludovico Albert (Expert in training systems)

Giorgio Cavadi (Technical Manager, Expert in training systems)

Paolo Mazzoli (Former General Manager INVALSI)

Gabriella Agrusti (Full Professor of Experimental Pedagogy at LUMSA University)

Simonetta Zuccaccia (President of "Istruzione Agraria Foundation" in Città di Castello and President of Umbria "Dirigentiscuola")

26th November: 4.00 - 6.30 p.m.

Room 1 - Teaching Session 6

Theme 9. Italian, Maths and English: teaching processes through INVALSI data and tools

Organizer: INVALSI

Coordinator: Paola Giangiacomo (INVALSI)

From concept to question: the revision of the INVALSI Teacher Questionnaire

Giuseppina Le Rose (INVALSI) Doriana delli Carri (INVALSI) Francesca Leggi (INVALSI)

Outcomes and INVALSI questions, "strategic allies" for our school improvement Giuseppina Maria Grazia Cardillo (Comprehensive Institute J.F. Kennedy, Reggio Emilia)

INVALSI data to build a effective didactic approach and to realize a professional growth of the teacher

Alessandra De Angelis (Artistic High School G. Sello)

Maria Chirico (Professional Institute for Hospitality and Catering of Brindisi)

Teaching practices and improvement of learning

Lisia Piovano (Comprehensive Institute of Città Sant'Angelo)

Ester Valloreo (Comprehensive Institute of Città Sant'Angelo)

Valentina Mandruzzato (Comprehensive Institute of Città Sant'Angelo)

Manuela Carchesio (Comprehensive Institute of Città Sant'Angelo)

The class and understanding of the result of the INVALSI test

Marina Paola Mariano (Comprehensive Institute "Via Linneo", Milan)

Room 2 - Teaching Session 7

Theme 12. From Self-Evaluation Report to Social Accountability: the value of INVALSI Data

Organizer: INVALSI

Coordinator: Michela Freddano (INVALSI)

The use INVALSI tests data for training, informing and improving

Paolo Barabanti (INVALSI)

The results of the INVALSI tests as a tool for strategic planning

Marianna Rasetta (Comprehensive Institute of Loreto Aprutino)

Graziella Marrone (Comprehensive Institute of Loreto Aprutino)

Marta Feliciani (Comprehensive Institute of Loreto Aprutino)

INVALSI data: external and internal evaluation

Maria Carbone (Lower Secondary School "Ammendola-De Amicis", Naples)

School inclusion: special educational needs and students' sense of belonging through IEA TIMSS data and the RAV

Francesco Annunziata (INVALSI) Laura Palmerio (INVALSI)

Data and tools: sharing best practices

Maria Carbone (Lower Secondary School "Ammendola-De Amicis", Naples)